



Procuring for a Circular Economy

Category & Commodity Guidance

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THIS GUIDANCE

This Category & Commodity Guidance is linked to the Introduction ([see separate document](#)), which introduces how procurement may support the important transition to a circular economy, net zero decarbonisation and related social improvement. It contains circular procurement key principles and success factors as well as examples.

The guidance does not replace essential engagement and consideration of relevant and proportionate contract requirements but emphasises the importance of this and highlights key opportunities and examples of applying circular approaches to planned procurements.

This practical guidance is designed to help:

Key people who influence decisions regarding potential procurements:	To understand their role in making decisions which support life cycle value and critical national and local objectives regarding net zero, a circular economy and social improvement.
Procurement professionals and those involved in developing specifications and managing contracts and suppliers:	To understand circular approaches that are relevant for a planned procurement within the specific categories and examples of how this may be applied in practice.
Suppliers and potential suppliers:	To understand how this may apply to their business offering and opportunities which may exist.

This guidance contains:

THE CATEGORIES	Details of categories which reflect some that are commonly procured across the Scottish public sector and for which circular approaches are particularly relevant. A commentary on relevant circular approaches to procurement and the market is provided. The principles outlined may also apply to other categories.
MAKING THE RIGHT DECISIONS EARLY ENOUGH	This emphasises the importance of early strategic thinking when considering relevant approaches to ensure the right decisions are made in the Pre-Procurement stage – supported by snapshot examples.
PROCUREMENT GUIDANCE	Guidance through the procurement cycle to embed relevant requirements which support the circular economy and are aligned with relevant life cycle approaches.

BEFORE USING THIS GUIDANCE

As the circular procurement hierarchy describes in the 'INTRODUCTION TO CATEGORY & COMMODITY GUIDANCE', making the right decisions early in collaboration with relevant internal and external stakeholders will optimise the most positive (circular and other) outcomes. Key internal stakeholders are all those who influence decisions regarding potential procurements, which may include Finance, Budget Holders, End Users, Facility Managers, Waste Managers, Procurement teams, Sustainability leads and others.

An introduction to Category & Commodity Guidance

Category & Commodity Guidance



Consider the following, before jumping to the category guidance, within business cases, options appraisal, category or commodity strategies:

Consider	Detail	✓
Define intended objectives and requirements from planned procurement	Functional/Technical/Safety/Security/Performance/Innovation/Sustainability and others as relevant.	
Rethink procurement need	Is the procurement necessary – can the required function be provided in an alternative way (e.g. external and internal reuse, improved use of existing assets etc)?	
Identify Life Cycle Impacts	Identify relevant life cycle economic, environmental and social impacts (for example completing the Life Cycle Impact Mapping/ Sustainability Test).	
Determine market capability	See market commentary as background but determine specific opportunities and market circular maturity; potential use of PINs/surveys as well as examples from other buyers.	
Consider alternatives to the norm	Consider the potential for alternatives to the norm, such as circular business models and innovative solutions, and the costs and benefits involved.	
Identify Life Cycle Costs	Internal engagement to determine all relevant costs including relevant end of life costs.	
Agree procurement requirements, if relevant	If procurement is necessary, have you determined relevant business models, circular specifications?	

USING THE CATEGORY GUIDANCE

- The Navigation Map below may be used to access detail for specific categories.
- Within each category there are links to relevant sections and a link to get back to the Navigation Map.

Please note:

- **Future changes:** the guidance includes various links to other guidance, standards, examples etc. It is recognised that these may change or be replaced in the future. This guidance is however designed to highlight key principles, approaches and lessons which are expected to remain relevant. This guide is developed in 2023 – relevant examples, markets and innovation may develop over time.
- **Legal advice:** contracting authorities should obtain legal advice in the event of uncertainty regarding the suitability of suggested specifications/clauses contained within this Guide. Procurers must ensure the relevance and proportionality of procurement requirements, according to contract subject matter.



- **Sustainable procurement risks & opportunities:** It is recognised that the focus on circular procurement may reflect only some of the potential environmental and socio-economic risks and opportunities that may be relevant to a particular procurement and there may also be other categories for which guidance provided may be appropriate and transferable.
- **Labels and standards:** A buyer may ask a product or material to have been given an independently verifiable label or operate to a stated standard which certifies that it meets specific resources/ materials/ waste characteristics. The use of labels needs to be considered with care. They must be: linked to the subject of the contract (and all criteria must be relevant), based on publicly available specifications, involve independent audits and consider life-cycle environmental impacts open to anyone who meets the standards, certified by a third party e.g. Type 1 eco-labels. Where not all of a label’s criteria are relevant to a procurement, it is better to set out specific criteria and requirements in the tender and contract conditions, instead of asking for the label. You may accept the holding of a relevant eco-label as evidence of compliance with that specification but must be prepared to accept equivalent means of proof that the product or service meets the specification.

NAVIGATION MAP

CATEGORY	SCOPE, IMPACTS & MARKET	PRE-PROCUREMENT	PRE-TENDER NOTIFICATION	SUPPLIER SELECTION	SPECIFICATION, EVALUATION & AWARD	CONTRACT & SUPPLIER MANAGEMENT
CATERING PRODUCTS & SERVICES	Click here	Click here	Click here	Click here	Click here	Click here
CLEANING PRODUCTS & SERVICES	Click here	Click here	Click here	Click here	Click here	Click here
ELECTRICAL & ELECTRONIC PRODUCTS & SERVICES	Click here	Click here	Click here	Click here	Click here	Click here
FLOORING	Click here	Click here	Click here	Click here	Click here	Click here
FURNITURE	Click here	Click here	Click here	Click here	Click here	Click here
MAINTENANCE & REPAIR	Click here	Click here	Click here	Click here	Click here	Click here
SPORTS & RECREATION	Click here	Click here	Click here	Click here	Click here	Click here
WASTE SERVICES	Click here	Click here	Click here	Click here	Click here	Click here
WORKWEAR & PPE	Click here	Click here	Click here	Click here	Click here	Click here
PACKAGING – a common issue for each category	Click here	Click here	Click here	Click here	Click here	Click here



CATERING

(a) SCOPE OF GUIDANCE:

	<ul style="list-style-type: none"> Catering FM Services 	<ul style="list-style-type: none"> A range of food and catering products. These include food, Catering Consumables, Catering Equipment, Catering accessories. It may include vending machines which are often leased. Given the range of packaging and materials within catering products and services refer to the Packaging category.
<p>These services and products involve the use and maintenance of materials, products and equipment to which the following circular approaches may apply, with the emphasis on avoiding waste, minimise carbon, extending useful life and enabling reuse and recycling.</p>		<p>Related category: See the Packaging category, given the extensive range of packaging and catering materials and products. Also see the Furniture category given the potential link to catering furniture. The Waste services category may also be relevant given food waste services.</p>

(b) RELEVANT POTENTIAL LIFE CYCLE CIRCULAR APPROACHES:

SOURCING: Circular Design	 Reduce total amount of materials.	 Reduce amount of virgin inputs.	USE: Circular Use	 Extend the useful life.	END OF LIFE: Circular Recovery	 Maximise the reusability of a product or component.	 Maximise the reusability or recyclability of materials.
<ul style="list-style-type: none"> Food product choices – local/ organic/ reduced carbon. Design of catering products and equipment to facilitate reuse, repair, upgrade, refurbish, disassembly and recyclability. Include highest level feasible recycled content, low carbon, sustainably sourced, reduced toxicity materials within catering products, equipment and primary and secondary packaging*. Supply of pre-owned, refurbished catering equipment, including auction – see here and here (other examples exist). Leasing of catering equipment - to include maintenance and repair e.g. by Foodservice Equipment Association (FEA) members. 			<ul style="list-style-type: none"> Management of food, menu planning and portion control & training to prevent storage, preparation and plate waste and manage waste in accordance with waste hierarchy. Equipment designed for non-obsolescence/ longevity and upgrade, including extended warranties. Ease of, and requirement for, maintenance, repair and refurbishment of catering equipment (part of a service or a 	<ul style="list-style-type: none"> Link to sourcing - design of catering equipment for disassembly, repair, reuse, recycling. Re-use of catering equipment that reaches the end of its life within the contracting authority but may be re-used elsewhere. Take back and reuse/ recycling of catering equipment and packaging. Potential sale of otherwise redundant equipment – see here and here (other examples exist). Otherwise recycling of products, equipment, packaging and food - ensure that dry waste is kept separate from wet waste. 			



<ul style="list-style-type: none"> • Rental or hired equipment or a managed equipment service. • Product as a service e.g. catering equipment. • Re-usable catering items (such as plates, cups). • Re-usable/ recyclable packaging. • Consideration of life cycle costs for the supply. 	<p>separate contract) to extend useful life of catering equipment.</p> <ul style="list-style-type: none"> • Optimise use of products and equipment. 	
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Circular Food Systems

Within Catering services there is an opportunity to support such a system: (1) Food is produced regeneratively, and locally where appropriate, (2) Healthy diets and foods are accessible, (3) Food and packaging waste is avoided.

Biodegradable products/ waste

*There are many 'biodegradable' catering and packaging products now available. For example, those made of polylactic acid (PLA), a bioactive thermoplastic polyester which is biodegradable, produced from renewable resources, typically corn starch or sugarcane. While these may be a potential sustainable solution, it is important to state that bioplastics should only be used where they can be effectively recycled or composted through the local waste management infrastructure. See the [Packaging](#) category for more details.

Single Use Plastics

The Single-use Plastic Products (Scotland) Regulations 2021 prohibits making and supply commercially of the following single-use plastic items:

Cutlery (forks, knives, spoons, chopsticks and other similar utensils) – Plates - Beverage stirrers - Food containers made of expanded polystyrene - Cups and lids made of expanded polystyrene; while plastic straws may only be supplied in particular settings and circumstances.

Life Cycle Costs

The range of life cycle costs for catering services may include costs of food, consumables, chemicals, equipment, waste infrastructure, other products, inventory and storage, labour, utilities, maintenance, end-of-life costs (as well as potential revenue) for handling the waste generated.



(c) THE MARKET FOR CATERING PRODUCTS AND SERVICES:

The status of circular approaches within market

The market ranges from international and other large Catering and Food suppliers and FM providers to local SMEs and third sector organisations supplying specialist or local supply and services, including as sub-contractors.



Much of general catering equipment is procured direct from manufacturers (who may specialise in specific types of equipment, often manufactured overseas) or from dealers.

Large Catering providers and many SMEs will have policies and plans in place to support the transition to net zero and a circular economy. The market may be described as at a medium level of circular maturity.

There is a significant refurbished catering equipment market.

Partly driven by regulations there is a significant push to avoid the use of single use plastics.

Food policy is driven by the [Scottish Good Food Nation policy](#).

Examples of circular approaches adopted include, but are not restricted to:



- Extend functional lifetimes through effective maintenance, repair and refurbishment of catering equipment.
- The purchase, auction or direct sale of otherwise redundant pre-owned catering equipment, including:
 - Industrial ovens
 - Warewashing equipment
 - Fridges and freezers
 - Small appliances
- The potential application of circular business models – for example, ‘Product as a service’ - through provision of essential catering equipment as a service.
- Reusable catering items including equipment and secondary packaging.
- An increasing number of alternative materials (e.g. wood, paper, cardboard or fibre-based) and reusable catering consumables available (see earlier comment regarding ‘biodegradable’ materials).
- Reusable and recyclable packaging materials.
- Food waste minimisation plans and food waste composting.

Contracting authorities may therefore focus on circular objectives within Catering Products and Services contracts.



- A Catering Service contract may be considered a ‘priority’ from a carbon reduction perspective – as the Supplier Selection section clarifies. Other Catering Products contracts will depend on the scope of the contract.
- Given the market maturity, specifications that support circular outcomes may include technical requirements as well as outcome or performance-based specifications. Details are provided within the specifications section.



SNAPSHOT EXAMPLE – KEY LESSONS: INCENTIVISING REUSE REAPS BENEFITS

Ditching Disposables



NHS Scotland, in partnership with Zero Waste Scotland, implemented a 10p charge on single-use hot drinks cups at University Hospital Crosshouse in Ayrshire, reducing the price of hot drinks accordingly to make it cost-neutral. In addition, paper disposable coffee cups and polystyrene soup cups were replaced with 100% recyclable polypropylene disposable coffee cups. Meanwhile, Crosshouse staff were provided with free, reusable and 100% recyclable polypropylene cups. In addition to paying 10p less for their drinks, staff using any reusable cups also obtained a stamp towards a free 10th drink.

During the trial, reusable cup usage increased from 1% to 43%, reducing coffee cup consumption by 157 a day, or almost 60,000 a year.

In addition, hot drink sales increased by 10% over the trial period, while survey data revealed strong support for the trial system.

Further details are available from [here](#).



(d) PRE-PROCUREMENT – the essential stage

As the circular procurement hierarchy describes in the Introduction to Category & Commodity Guidance, and the [‘BEFORE USING THIS GUIDANCE’](#) section this is the most important stage, before issuing a tender. Making the right decisions at this stage will optimise the most positive outcomes.



<ul style="list-style-type: none"> • Are performance, quality, technical and sustainability, including circular, objectives clearly defined for the planned procurement e.g. within a Sustainable Catering Policy, including the application of relevant circular approaches? 	
<ul style="list-style-type: none"> • Have all relevant life cycle impacts and costs been considered? 	
<ul style="list-style-type: none"> • Is the potential for local markets to meet the need understood and links to shorter supply chains and possible lower carbon impacts? 	
<ul style="list-style-type: none"> • Is the circular market capability understood and do you understand how others have applied this into catering contracts? 	
<ul style="list-style-type: none"> • Have you identified, and engaged with, key stakeholders such as the end user and budget holder, including discussing potential alternative financing or payment models? 	
<ul style="list-style-type: none"> • Have you considered the potential for alternatives to the norm e.g. circular business models, innovative solutions, and costs/ benefits? 	

Having considered the above and a decision regarding the planned procurement has been made, the Contract Notice may be used to highlight the importance of circular approaches to the Contracting Authority:

(e) PRE-TENDER NOTIFICATION

Approach	Example
Set out the aims and objectives of the planned procurement within Contract Notice, including relevant circular outcomes.	<p>If sustainability is a core requirement and forms a key element of the subject matter of the contract, highlight this through the wording of the contract title, for example: ‘Sustainable Catering Services [Equipment]’.</p> <p>‘The Contracting Authority has included obligations within the specification and Catering Services [product] contract conditions relating to social and environmental matters, including the circular economy and repair, re-use and refurbishment of catering equipment and products, which are relevant to the service to be delivered.’</p> <p>Where the procurement has been identified as a ‘relevant’ or ‘priority’ climate change contract (see Supplier Selection) you must state this in your Contract Notice.</p>



(f) SUPPLIER SELECTION

Approach	Example
Include relevant climate selection criteria into your Single Procurement Document (SPD) in question 4C7 (and 4D2 where relevant):	Where the procurement has been identified as a 'relevant' or 'priority' climate change contract (e.g. a Catering Services contract would normally be a 'priority'), you should see the Procurement Journey for the latest detail on potential suppliers providing necessary evidence of carbon reduction.
To assess the capability of potential suppliers in enabling circular economy outcomes the following could be asked:	<p>'The contractor should demonstrate that they have delivered the minimum environmental standards required of the 'services', including the application of circular economy outcomes, in previous contracts similar in nature to that required by the contracting authority, through relevant specialist capability.' OR</p> <p>'Detail your experience in delivering a Catering service that included the application of circular approaches which extended the useful life of relevant products or equipment and avoided unnecessary material use and waste.'</p>

An ideal response would demonstrate:

- Evidence of having assessed the lifetime of catering food, products and equipment used within services, waste that arises and the application of the waste hierarchy, maintenance and repair, reuse and refurbishment where relevant in the delivery of a contract similar in nature to the service required;
- Evidence of food waste reduction strategies (where relevant) on similar contracts;
- Evidence of the management of re-use, repair and refurbishment within its supply chain including sub-contractors and links to SMEs, third sector or supported businesses involved;
- Evidence of understanding the key circular economy opportunities and management requirements, including an example Management Plan.



(g) SPECIFICATION, TENDER & EVALUATION

The following are examples of potential clauses. These may need to be adjusted to suit the scope of a specific contract.

Specify relevant technical requirements:

There will be potential technical requirements that relate to the performance of catering products, equipment or packaging involved within services – these may support circular outcomes, such as the requirement for a minimum lifetime and the availability of spare parts to aid repair.

Where relevant information is available it may be appropriate to focus on minimum requirements for catering products. As well as complying with the Single-use Plastic Products (Scotland) Regulations 2021 this may include specifying materials catering products must be made of, to ensure they are sustainable, reusable or otherwise fully recyclable or compostable (in accordance with local waste infrastructure).

Packaging waste minimum requirements may include (see the Packaging category for more details).

“Packaging waste in delivering food for the catering service is minimised:

- i. tertiary and secondary packaging consists of at least 70% recycled cardboard; and
- ii. where other materials are used, the tertiary packaging must either be reusable or all materials contain some recycled content.”

For vending machines:

“The tenderer must provide drink machines dispensing non-prepacked hot and/or cold drinks that enable the use of reusable cups (e.g. porcelain cups, glass cups) instead of disposable cups. If disposable cups are not avoidable on grounds of food hygiene, consumer safety and public health (see note above), they must be recyclable, made of either recyclable plastic or compostable material.”

Specify relevant intended circular outcomes:

“The Contractor shall support the Client’s aims to transition to a Circular Economy and net zero and will keep up to date with best practice circular opportunities within the Catering sector, which seek to reduce carbon emissions, material and resource use and waste.

The Contractor will develop, maintain and implement a relevant Circular Management Plan (EMP), with specific actions capable of being monitored and reported, including but not necessarily restricted to:

- Application of the waste hierarchy for food, catering products, equipment and packaging used which, where relevant, support local social improvement.
- Optimise the useful life and re-use of products or equipment used or installed within services provided.
- The use of durable and repairable catering equipment for which there is availability of spare parts and which are designed to prevent early obsolescence.
- The use of pre-owned catering equipment which meet relevant performance, quality and warranty requirements.
- Avoid where practical the use of single use plastics.
- The use of sustainable and low embodied carbon products and equipment including those with highest feasible level of recycled content, with means of verifying this.
- Relevant circular business models for products, materials, plant, equipment and tools used which provide life cycle value.
- Essential workforce skills and training within service delivery that support a circular economy and transition to net zero.”



Specify food and food waste reduction:

Food

"Catering service suppliers should support circular food systems, including through the provision of food that is produced regeneratively, and locally where appropriate, food and meals should meet relevant nutrition requirements (e.g. [Government Buying Standards for food and catering services: nutrition standards](#)) while reducing carbon impact where possible, and food and packaging waste is avoided."

Food waste reduction

The [Government Buying Standard for food and catering services](#) includes the requirement that:

"Catering service suppliers which will supply on-site catering services shall:

- Take steps to minimise food waste in their onsite operations by creating a food waste minimisation plan,
- Review and revise the actions they are taking with suitable regularity so as to continue to reduce food waste wherever possible; and
- Feed back to clients on progress and results with suitable regularity."

The [EU Green Public Procurement criteria for food, catering services and vending machines](#) includes detailed requirements for the prevention of food waste. This requires standard operating procedures for purchasing, storage, cooking, menu planning and serving, together with communication with users.

Specify management of catering equipment and otherwise redundant products or equipment, within services provided [where relevant]:

"It will be the responsibility of the Contractor to maintain an inventory of heavy and light catering equipment, to be updated at least annually."

"Catering equipment used within service delivery shall be designed to be easily repairable and durable and shall be maintained, repaired and refurbished to extend its useful life. This may include pre-owned equipment which meets relevant quality, safety and performance requirements."

"All redundant equipment resulting from work carried out under, or procured for the purposes of the contract, the costs of which have been paid by the Client under the Contract, or which is otherwise owned by the Client or Contractor, shall be managed as follows:

- Repaired or refurbished where appropriate to extend useful life.
- Where not suitable for repair or refurbishment by the Contractor, sold for the best price reasonably obtainable."

Specify products and packaging:

See the [Packaging](#) category for more details. For catering this may include:

"The Contractor shall:

- Minimise packaging without detriment to the products it protects.
- Take back all packaging materials unless otherwise agreed in writing by the parties.
- Collect any packaging left at the client's premises within the period agreed in writing between the parties.
- Use minimum packaging necessary that is capable of recovery for further use, recycling or composting (subject to local waste infrastructure).



-
- Review packaging specifications periodically to ensure that no unnecessary limitations on the use of recycled materials exist.
 - Minimise the use of non-returnable packaging and reduce the environmental impact of packaging that is disposed of e.g. serving milk, condiments and sauces in reusable containers, rather than disposable/individual sachets, where this does not compromise food safety. Avoiding the use of disposable cutlery and plates/cups. Use serviettes made from unbleached, recycled material.”

End of life management /waste disposal: “Non-disposable items must be used on a general basis. If disposable items are used, they must be recyclable, made of either recyclable plastic or compostable material. Compostable items are to be preferred for those uses leading to contamination of items by food (e.g. cutlery and dishware).”

EVALUATION & AWARD CRITERIA:

Weightings will reflect relevant risks and opportunities as well as the reliance on technical or functional specifications.

Evaluators must have the capability to evaluate tenders that include a focus on circular outcomes, including subject matter experts.

“Contractors are required to demonstrate in a Circular Management Plan:

- how they will identify, prioritise and select options to prevent life cycle waste, minimise carbon emissions and material use through optimising the useful life of catering products or equipment used, installed or removed, including through innovative solutions, in conjunction with key stakeholders;
- [where relevant] how they will use or install catering equipment that has been pre-owned and which are fit for intended use and meet all quality and performance requirements, including the provision of relevant warranties.

Responses should be SMART and capable of being monitored through contract management.”

An ideal response may provide detail that supports some or all of the following [according to the scope of the contract]:

- How they will extend the useful life of catering equipment through relevant maintenance, repair and refurbishment;
- How catering equipment used or installed are designed for durability, ease of disassembly, reuse, repair, recyclability;
- Where pre-owned equipment is available evidence of their suitability to meet all requirements, including details of warranties available;
- How catering products minimise embodied carbon through inclusion of evidenced recycled content and/or sustainable materials and which are recyclable or compostable (subject to local waste infrastructure);
- Detail of relevant technical requirements or standards that the products or materials meet, that relate to relevant circular outcomes;
- How they will apply the waste hierarchy to food, products, equipment and packaging, including safe redistribution of surplus food if applicable;
- How they will apply and manage the above throughout their relevant supply chain;
- How they will ensure that staff working on the contract have necessary skills and training to implement circular and net zero approaches;
- Explanation of proposed methods and metrics to monitor and report implementation of agreed circular outcomes – see Contract Management for details.



(h) CONTRACT & SUPPLIER MANAGEMENT

Contract management

Contract management requirements and KPIs will be considered when developing the specification/ ITT or may be agreed with the preferred bidder during the mobilisation period. This is a very important stage of the procurement process and ensures that evidence whether the intended, including circular, outcomes are being delivered or not is made available. This ensures there is evidence of how the procurement has contributed to aligned objectives.

Monitoring technical requirements:

Technical requirements may need to be continually monitored such as compliance with required standards.

For example, a contract condition such as the following would need to be monitored by the provision of appropriate evidence:

“Catering products used must be fully [reusable], [recyclable].”

This may include, for example, the amount of equipment & packaging reuse, plastic saved by customers using a reusable cup in outlets, quantity of food waste that is composted or sent to anaerobic digestion (AD) plant, and others.

Monitoring intended outcomes:

The use of quantitative KPIs is dependent on the availability of a baseline against which to measure improvement. This may not always be readily available, in which case focus on qualitative improvement in circular supply. This could include a requirement for developing a waste inventory -surveying all areas and processes to identify types and sources of on-site waste generation.

It may be appropriate to ask that suppliers use a Computer Aided Facilities Management (CAFM) tool to capture their performance and this can incorporate the sustainability requirements that have been included in the contract.

[where relevant] “The contractor is required to produce data on the following:

- methods of disposal of food/ product/ equipment and packaging waste, showing clear evidence of using disposal methods which are environmentally preferable, in accordance with the Waste Hierarchy;
- volumes/ quantities of the reuse, off or on-site repair, refurbishment, donation, sale or recycling, of all otherwise redundant catering equipment and packaging;
- the use of pre-owned catering equipment in Providing the Service.”



Potential contract management requirements and KPIs – it is not expected all of these will be relevant for all contracts so would need to be agreed.

Circular life cycle focus		Potential KPI, where data can be provided
Sourcing: supply of food, catering products or equipment.	How has the Contractor: <ul style="list-style-type: none"> Improved the embodied carbon of food, products and equipment used or installed, including appropriate use of pre-owned equipment? 	<ul style="list-style-type: none"> Locally sourced food % Reusable /non-disposable products % Recyclable/ compostable (where appropriate) products % Number of appropriate pre-owned equipment
Use: use of food, catering products or equipment	How has the Contractor: <ul style="list-style-type: none"> Enabled repair or refurbishment of catering equipment supplied or used? Enabled relevant reuse of products or equipment? 	<ul style="list-style-type: none"> Increasing consumption of plant-based food when appropriate Reuse number, % or kg Repair/ Refurbish number, % or kg Waste avoided % or kg Quantity of catering equipment with extended warranties Staff training on environmental aspects GHG transport reduction in service, kgCo2e
End of Life management	How has the Contractor applied the waste hierarchy in the management of food, products, equipment or packaging, including though improving: <ul style="list-style-type: none"> The management of food and food waste? The reuse of catering products? Reuse or resale of otherwise redundant catering equipment or parts. Recycling of products, equipment or packaging. 	<ul style="list-style-type: none"> Food waste avoided £, % or kg Reuse number, % or kg Recycled % or kg A list of items donated or sold by the Contractor together with [where relevant] a statement of the proceeds of sale.

Continual improvement

“The Contractor is required to work with the Client to continually improve the availability and accuracy of data and information provided that demonstrates how they are meeting the Client’s objectives, and/or identifies opportunities for further improvement in environmental, circular and related social outcomes. In particular, the Contractor is required to inform of all relevant Circular Economy opportunities arising from the service and work with the Client to assess and implement those that align with value for money and cost certainty.”

CLEANING

(a) SCOPE OF GUIDANCE



- Indoor and outdoor Cleaning FM Services and other specific cleaning services. Some cleaning will be undertaken by public sector in-house personnel although many services are outsourced.
- A range of cleaning products and equipment, including cleaning solutions, cloths, washers, sweepers, vacuums, buffers & polishers, carpet cleaners, chemical fogging equipment, hydrogen peroxide vaporiser robotic cleaners, and others.
- Given the range of packaging and materials within cleaning products and services refer to the [Packaging category](#).

These services and products involve the use and maintenance of materials, products and equipment to which the following circular approaches may apply, with the emphasis on avoiding waste, minimize carbon, extending useful life and enabling reuse and recycling.

Related category: See the [Packaging](#) category, and the [Workwear & PPE](#) category given the link to cleaning workwear and textiles. Also, [Furniture and Flooring](#), according to the scope of cleaning services. [Waste services](#) is also relevant given management of waste cleaning products.

(b) RELEVANT POTENTIAL LIFE CYCLE CIRCULAR APPROACHES:

<p>SOURCING: Circular Design</p> <div style="display: flex; justify-content: space-around;"> <div style="background-color: #f4a460; padding: 5px; border-radius: 10px; text-align: center;"> Reduce total amount of materials. </div> <div style="background-color: #f1c40f; padding: 5px; border-radius: 10px; text-align: center;"> Reduce amount of virgin inputs. </div> </div>	<p>USE: Circular Use</p> <div style="background-color: #27ae60; padding: 5px; border-radius: 10px; text-align: center;"> Extend the useful life. </div>	<p>END OF LIFE: Circular Recovery</p> <div style="display: flex; justify-content: space-around;"> <div style="background-color: #3498db; padding: 5px; border-radius: 10px; text-align: center;"> Maximise the reusability of a product or component. </div> <div style="background-color: #8e44ad; padding: 5px; border-radius: 10px; text-align: center;"> Maximise the reusability or recyclability of materials. </div> </div>
<ul style="list-style-type: none"> Design of cleaning products and equipment to facilitate reuse, repair, upgrade, refurbish, disassembly and recyclability. Include highest level feasible recycled content, low carbon, sustainably sourced, reduced toxicity materials within cleaning products, equipment and primary and secondary packaging*. Use of ecolabelled products, e.g. EU Ecolabel for hard surface cleaning or other relevant EN ISO 14024 type I ecolabel. Supply of pre-owned, refurbished cleaning equipment, including auction. Leasing of cleaning - to include maintenance and repair. 	<ul style="list-style-type: none"> Application of sustainable cleaning practices such as bulk and concentrated products, concentrated solutions, dosing instructions, decanting to reusable containers. Manage waste in accordance with waste hierarchy. Cleaning equipment designed for non-obsolence/ longevity and upgrade, including extended warranties. Ease of, and requirement for, regular cleaning, maintenance, repair and refurbishment of cleaning 	<ul style="list-style-type: none"> Link to sourcing - design of cleaning equipment for disassembly, repair, reuse, recycling. Re-use of cleaning equipment that reaches the end of its life within the contracting authority but may be re-used elsewhere. Take back and reuse/ recycling of cleaning equipment and packaging. Potential sale of otherwise redundant equipment. Otherwise recycling of products, equipment and packaging.

<ul style="list-style-type: none"> • Rental or hired equipment or a managed equipment service. • Product as a service e.g. cleaning equipment. • Re-usable cleaning items and accessories. • Re-usable/ recyclable packaging. • Consideration of life cycle costs for the supply. 	<p>equipment (part of a service or a separate contract) to extend useful life of cleaning equipment.</p> <ul style="list-style-type: none"> • Optimise use of products and equipment. 	
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Biodegradable materials




*There are many 'biodegradable' packaging products now available. For example, those made of polylactic acid (PLA), a bioactive thermoplastic polyester which is biodegradable, produced from renewable resources, typically corn starch or sugarcane. While these may be a potential sustainable solution, it is important to state that bioplastics should only be used where they can be effectively recycled or composted through the local waste management infrastructure. See the [Packaging](#) category for more details.

Life Cycle Costs

The range of life cycle costs for cleaning services may include costs of products, equipment, waste infrastructure, inventory and storage, labour, utilities, maintenance, end-of-life costs (as well as potential revenue) for handling the waste generated.

(c) PRE-PROCUREMENT - the essential stage

The status of circular approaches within market

<p>The cleaning market comprises large FM providers, a range of SMEs and micro businesses and third sector organisations, including as sub-contractors.</p> <p>Much of general cleaning equipment is manufactured overseas, and some within the UK.</p> <p>Large cleaning providers and many SMEs may have policies and plans in place to support the transition to net zero and a circular economy, although SMEs need public sector clients to support them in the transition. The market has for</p> 	<p>Examples of circular approaches adopted include, but are not restricted to:</p> <ul style="list-style-type: none"> • Extend functional lifetimes through effective maintenance, repair and refurbishment of cleaning equipment (these may be part of a service or a separate contract). • The purchase of pre-owned cleaning equipment. • Re-use of cleaning equipment through the auction/ sale or donation of otherwise redundant equipment. • Equipment may be leased, rented or hired by client or Contractor. 	<p>Contracting authorities may therefore focus on circular objectives within Cleaning Products and Services contracts.</p> <ul style="list-style-type: none"> • A Cleaning Service contract may be considered a 'priority' from a carbon reduction perspective – as the Supplier Selection section clarifies. Other Cleaning Products contracts will depend on the scope of the contract. 
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<p>some time, driven in part by consumer demand, focused on sustainable cleaning products and services and increasingly focuses on circular approaches and 'disruptive' products, so may be described as at a medium level of circular maturity. The International Association for Soaps, Detergents and Maintenance Products (AISE) has analysed the trend in sustainable production and cleaning.</p> <p>Servicing, maintenance and repair of cleaning equipment is routinely undertaken.</p> <p>There is little evidence of widespread remanufacturing of cleaning equipment.</p>	<ul style="list-style-type: none"> • The potential application of circular business models – for example, 'Product as a service' - through provision of essential cleaning equipment as a service. • Reusable/ refillable cleaning products and concentrated solutions. • Reusable and recyclable packaging materials. • Emerging technologies such as pulse mops and microfiber cloths which reduce detergent use, so reducing waste. • Digital tools (such as Internet of Things) that help monitor cleaning products and equipment in their supply chain. • There are many products manufactured using non-toxic chemicals, with sustainable packaging. 	<ul style="list-style-type: none"> • Given the market maturity, specifications that support circular outcomes may include technical requirements as well as outcome or performance-based specifications. Details are provided within the specifications section.
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SNAPSHOT EXAMPLE – KEY LESSONS: MARKET SUPPORTS SOME CIRCULAR OUTCOMES AND TAKE BACK AND REUSE OF CLEANING EQUIPMENT

CLEANING EQUIPMENT FRAMEWORK

Scotland Excel’s cleaning equipment framework provides members with a variety of cleaning equipment such as vacuums, scrubber dryers, sweepers, rotary machines and carpet extractors. It also provides the requirements associated with the maintenance and repair of cleaning equipment and associated products. Members using this framework are local authority cleaning teams, carrying out tasks related to floorcare within internal settings.

- Reducing environmental impacts is a key priority for suppliers.
- Suppliers offer to pick up abandoned machines from members and refurbish them before donating to charities.

See [here](#).



(d) PRE-PROCUREMENT – the essential stage

As the circular procurement hierarchy describes in the Introduction to Category & Commodity Guidance, and the [‘BEFORE USING THIS GUIDANCE’](#) section this is the most important stage, before going to the market. Making the right decisions, involving all key stakeholders, at this stage will optimise the most positive outcomes.

	✓
<ul style="list-style-type: none"> • Are performance, quality, technical, sustainability, including circular, objectives clearly defined for the planned procurement e.g. a Sustainable Cleaning Policy, including risk-based requirements and changes to estate (hot or home working or other)? 	
<ul style="list-style-type: none"> • Have all relevant life cycle impacts and costs been considered? 	
<ul style="list-style-type: none"> • Is market circular capability understood and do you understand how others have applied this into cleaning contracts? 	
<ul style="list-style-type: none"> • Have you identified, and engaged with, key stakeholders such as the end user and budget holder and waste management services, including discussing potential alternative operational, financing or payment models? 	
<ul style="list-style-type: none"> • Have you considered the potential for alternatives to the norm, such as circular business models and innovative solutions (e.g. hire of cleaning equipment), and the costs and benefits involved? 	

Having considered the above and a decision regarding the planned procurement has been made, the Contract Notice may be used to highlight the importance of circular approaches to the Contracting Authority:

(e) PRE-TENDER NOTIFICATION

Approach	Example
Set out the aims and objectives of the planned procurement within Contract Notice, including relevant circular outcomes.	<p>If sustainability is a core requirement and forms a key element of the subject matter of the contract, highlight this through the wording of the contract title, for example: “Sustainable Cleaning Services”.</p> <p>“The Contracting Authority has included obligations within the specification and Cleaning Services contract conditions relating to social and environmental matters, including life cycle circular economy approaches, use of sustainable cleaning products and equipment and practices, which are relevant to the service to be delivered.”</p> <p>Where the procurement has been identified as a ‘relevant’ or ‘priority’ climate change contract (see Supplier Selection) you must state this in your Contract Notice.</p>



(f) SUPPLIER SELECTION

Approach	Example
<p>Include relevant climate selection criteria into your Single Procurement Document (SPD) in question 4C7; also 4D2 Environmental Management:</p>	<p>Where the procurement has been identified as a 'relevant' or 'priority' climate change contract (e.g. a Cleaning Services may be a 'priority', depending on the scope of the contract, and otherwise 'relevant'), you should see the Procurement Journey for the latest detail on potential suppliers providing necessary evidence of carbon reduction.</p>
<p>To assess the capability of potential suppliers in enabling circular economy outcomes the following could be asked:</p>	<p>'The contractor should demonstrate that they have delivered the minimum environmental standards required of the 'services', including the application of circular economy outcomes, in previous contracts similar in nature to that required by the contracting authority, through relevant specialist capability.' OR</p> <p>'Detail your experience in delivering a Cleaning service that included the application of circular approaches which extended the useful life of relevant products or equipment and avoided unnecessary material use and waste.'</p>

An ideal response would demonstrate:

- Evidence of having assessed the lifetime of cleaning products and equipment used within services, waste that arises and the application of the waste hierarchy, maintenance and repair, reuse and refurbishment where relevant in the delivery of a contract similar in nature to the service required;
- Evidence of the management of re-use, repair and refurbishment within its supply chain including sub-contractors and links to SMEs, third sector or supported businesses involved;
- Recognition and use of ecolabelled products;
- Evidence of understanding the key circular economy opportunities and management requirements, including an example Management Plan, within, where relevant, an Environmental Management System.



(g) SPECIFICATION, TENDER & EVALUATION

The following are examples of potential clauses. These may need to be adjusted to suit the scope of a specific contract.

Specify relevant technical requirements:

There will be potential technical requirements that relate to the performance of cleaning products, equipment or packaging involved within services – these may support circular outcomes, such as the requirement for a minimum lifetime and the availability of spare parts to aid repair.

Where relevant information is available it may be appropriate to focus on minimum requirements for cleaning products. As well as complying with the Single-use Plastic Products (Scotland) Regulations 2021 this may include **specifying materials** cleaning products must be made of, to ensure they are sustainable, [include post-consumer recycled PET], is reusable or fully recyclable or compostable (in accordance with local waste infrastructure).

Packaging waste minimum requirements may include (see the Packaging category for more details).

“Packaging waste in delivering food for the cleaning service is minimised:

- iii. tertiary and secondary packaging consists of at least [80]% recycled cardboard; and
- iv. where other materials are used, the tertiary packaging must either be reusable or all materials contain some recycled content.”

Ensure that the relevant contractor workforce have the **skills and training** to deliver cleaning services that support the circular economy:

“The Contractor must ensure that all staff and supply chain partners involved in carrying out cleaning services are appropriately trained (ensuring that relevant records are available) to manage products, equipment and packaging to support the circular economy, including through transferable skills and qualifications.”

Relevant standards

‘A requirement of this contract is that cleaning products and services supplied meet the mandatory level of the [Government Buying Standard (GBS)] [EU Green Public Procurement Criteria (GPP)] for cleaning products and services.’

The [Government Buying Standard for cleaning products and services](#) includes, among other, requirements that: “[some] products must be supplied as concentrates requiring dilution before use. Primary packaging shall be easily separable into single-material parts (to aid recycling). The cardboard packaging shall consist of ≥80% recycled material. The contractor should use reusable microfiber cloths and apply drycleaning techniques ... where appropriate.”

The [EU Green Public Procurement criteria for indoor cleaning services](#) includes, among other, requirements for compliance with relevant EU EcoLabels which include limits to the amount of product packing while ensuring this is recyclable, with refillable and reusable spray bottles. The [EU GPP Criteria for Textiles](#) may also be relevant for cleaning workwear and textiles.

The [Cradle to Cradle Certified® Product Standard](#) also assesses cleaning products, and others, that meet environmental and social criteria. This includes product circularity, ensuring they ‘are intentionally designed for their next use and are actively cycled in their intended cycling pathways’.



Specify relevant intended circular outcomes:

"The Contractor shall support aims to transition to a Circular Economy and net zero and keep up to date with best practice circular opportunities within the cleaning sector.

The Contractor will develop, maintain and implement a relevant Circular Management Plan (EMP), with specific actions capable of being objectively monitored and reported, including but not necessarily restricted to:

- Application of the waste hierarchy for cleaning products, equipment and packaging used which, where relevant, support local social improvement.
- Optimise the useful life and re-use of products or equipment used or installed within services provided.
- The use of durable and repairable cleaning equipment for which there is availability of spare parts and which are designed to prevent early obsolescence.
- The use of pre-owned cleaning equipment which meet relevant performance, quality and warranty requirements.
- Avoid where practical the use of single use plastics and as much as is possible toxic materials within products and packaging.
- The use of sustainable and low embodied carbon products and equipment including those with highest feasible level of recycled content, with means of verifying this.
- Relevant circular business models for cleaning products and equipment used which provide life cycle value.
- Essential workforce skills and training within service delivery that support a circular economy and transition to net zero while enabling opportunities for local jobs and skills development that supports these objectives, with a particular focus on those further from the jobs market and the relevant involvement of MSMEs and VCSEs (e.g. young, long term unemployed [or others according to [PUBLIC BODY] objectives])."

Specify management of cleaning equipment and otherwise redundant equipment, within services provided [where relevant]:

"It will be the responsibility of the Contractor to maintain an inventory of cleaning equipment, to be updated at least annually."

"Cleaning equipment used within service delivery shall be designed to be easily repairable and durable and shall be maintained, repaired and refurbished to extend its useful life. This may include pre-owned equipment which meets relevant quality, safety and performance requirements."

"All redundant equipment resulting from work carried out under, or procured for the purposes of the contract, the costs of which have been paid by the Client under the Contract, or which is otherwise owned by the Client or Contractor, shall be managed as follows:

- Repaired or refurbished where appropriate to extend useful life.
- Where not suitable for repair or refurbishment by the Contractor, sold for the best price reasonably obtainable, or donated."

Specify products and packaging

See the Packaging category for more details. For cleaning this may include:

"The Contractor shall:

- Minimise packaging - using minimum packaging necessary that is capable of recovery for further use, recycling or composting (subject to local waste infrastructure).
- Take back all packaging materials unless otherwise agreed in writing by the parties.
- Collect any packaging left at the client's premises within the period agreed in writing between the parties.
- Review packaging specifications periodically to ensure that no unnecessary limitations on the use of recycled materials exist.



EVALUATION & AWARD CRITERIA:

Weightings will reflect relevant risks and opportunities as well as the reliance on technical or functional specifications.

Evaluators must have the capability to evaluate tenders that include a focus on circular outcomes, including subject matter experts.

“Contractors are required to demonstrate in a Circular Management Plan (which may be part of an Environmental Management System):

- how they will identify, prioritise and select options to prevent life cycle waste, minimise carbon emissions and material use through the sourcing, use and end of life management of cleaning products, equipment and packaging used, installed or removed, including through innovative solutions, in conjunction with key stakeholders;
- [where relevant] use cleaning equipment that has been pre-owned and which are fit for intended use and meet all quality and performance requirements, including the provision of relevant warranties.

Responses should be SMART and capable of being monitored through contract management.”

An ideal response may provide detail that supports some or all of the following [according to the scope of the contract]:

- How they will optimise required cleaning to target the right areas at the right times based on visitor traffic and other risks, knowing when and where products are needed using appropriate data-driven systems, and the link to materials, carbon and waste minimisation;
- How they will apply the waste hierarchy to management of products and equipment;
- How products used and packaging are based on an assessment of toxicity, sustainability, use and end of life options that support circular outcomes.
- Detail of relevant technical requirements or standards that cleaning products or equipment meet, that relate to relevant circular outcomes;
- How cleaning equipment used is designed for durability, ease of disassembly, reuse, repair, recyclability and how it is maintained to extend useful life, including through relevant repair and refurbishment;
- Where pre-owned equipment is available evidence of their suitability to meet all requirements, including details of warranties available;
- How they will apply and manage the above throughout their relevant supply chain;
- How they will ensure that staff working on the contract have necessary skills and training to implement circular and net zero approaches;
- Explanation of proposed methods and metrics to monitor and report implementation of agreed circular outcomes – see Contract Management for details.



(h) CONTRACT & SUPPLIER MANAGEMENT

Contract management

Contract management requirements and KPIs will be considered when developing the specification/ ITT or may be agreed with the preferred bidder during the mobilisation period.

This is a very important stage of the procurement process and ensures that evidence whether the intended, including circular, outcomes are being delivered or not is made available. This ensures there is evidence of how the procurement has contributed to aligned objectives.

Monitoring technical requirements:

Technical requirements may need to be continually monitored such as compliance with required standards.

For example, a contract condition such as the following would need to be monitored by the provision of appropriate evidence:

“Cleaning products used must meet the mandatory level of the [Government Buying Standard (GBS)] [EU Green Public Procurement Criteria (GPP)] for cleaning products and services.’

This may include, for example, concentrate products, refillable bottles and continuing evidence of reuse of packaging, and others.

Monitoring intended outcomes:

The use of quantitative KPIs is dependent on the availability of a baseline against which to measure improvement. This may not always be readily available, in which case focus on qualitative improvement in circular supply.

It may be appropriate to ask that suppliers use a Computer Aided Facilities Management (CAFM) tool to capture their performance and this can incorporate the sustainability requirements that have been included in the contract (depending on the scope of the cleaning contract).

[where relevant] “The contractor is required to produce data on the following:

- amount of cleaning products used (indicating whether they are ecolabelled and their dilution rate, if relevant) ;
- methods of disposal of cleaning products, equipment and packaging waste, showing clear evidence of using disposal methods which are environmentally preferable, in accordance with the Waste Hierarchy;
- volumes/ quantities of the reuse, off or on-site repair, refurbishment, donation, sale or recycling, of all otherwise redundant cleaning equipment and packaging;
- the use of pre-owned cleaning equipment in Providing the Service.”



Potential contract management requirements and KPIs – it is not expected all of these will be relevant for all contracts so would need to be agreed.

	Circular life cycle focus	Potential KPI, where data can be provided
Sourcing: supply of cleaning products or equipment.	<p>How has the Contractor:</p> <ul style="list-style-type: none"> Improved the circularity of cleaning products or equipment used in services? Used pre-owned cleaning equipment, where relevant? Adopted business models to the sourcing of required products and equipment that support circular outcomes? 	<ul style="list-style-type: none"> Number or % hired/ rented equipment or as part of a managed equipment service. % products that meet relevant standards (e.g EU GPP, C2C). Reusable products % Number of appropriate pre-owned equipment.
Use: use of cleaning products or equipment	<p>How has the Contractor:</p> <ul style="list-style-type: none"> Enabled repair or refurbishment of cleaning equipment supplied or used? Enabled relevant reuse of products or equipment? 	<ul style="list-style-type: none"> amount of cleaning (and/or ecolabelled) products used Reuse number, % or kg Repair/ Refurbish number, % or kg Waste avoided % or kg Quantity of cleaning equipment with extended warranties
End of Life management	<p>How has the Contractor applied the waste hierarchy in the management of products, equipment or packaging, including through improving:</p> <ul style="list-style-type: none"> The reuse of cleaning products? Reuse or resale of otherwise redundant cleaning equipment or components. Recycling of products, equipment or packaging. 	<ul style="list-style-type: none"> Reuse number, % or kg Recycled % or kg A list of items donated or sold by the Contractor together with [where relevant] a statement of the proceeds of sale.

Continual improvement

“The Contractor is required to work with the Client to continually improve the availability and accuracy of data and information provided that demonstrates how they are meeting the Client’s objectives, and/or identifies opportunities for further improvement in environmental, circular and related social outcomes. In particular, the Contractor is required to inform of all relevant Circular Economy opportunities arising from the service and work with the Client to assess and implement those that align with value for money and cost certainty.”



ELECTRONIC & ELECTRICAL

(a) SCOPE OF GUIDANCE



- Electronic and electrical equipment (EEE) includes Information & Communication Technologies (ICT) which covers telecommunications (telephone lines and wireless signals) and computers, mobile devices such laptops, smartphones and tablets, radio, television (screens), conferencing IT and satellite systems.
- Many office devices also fall into the category of EEE, for example, printers, copiers and multifunctional devices.
- Digital storage which includes the necessary hardware and infrastructure (e.g. servers, networks etc.) that enables users to access, store, transmit, understand and manipulate information.
- Lighting equipment.

ICT, digital storage and EEE in general has significant potential for reuse and repair. This includes the potential for procuring reused, refurbished and remanufactured (with relevant warranties) products as well as procuring new circular ICT products and services that have the potential to optimise the functional life of devices and equipment, or even extend it, after first use. Scottish Government has a number of supplier frameworks covering various aspects of EEE, ICT and related IT consumables.

Given the extensive range of potential products or services under this category this guidance focuses on circular approaches which may be applicable across these with some specific examples.



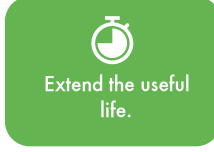


- Extends to wider electronic and electrical equipment that rely on the same technology and electrical components, including ICT accessories such as peripherals (e.g. external hard drives), toner ink cartridges, print cartridges, power chargers and rechargeable batteries. For example: Smart appliances, security equipment, transportation control systems.
- Also relevant to appliances and domestic type 'white goods' (laundry machines, cooking appliances, fridge/freezer appliances etc).

Related categories:
[Maintenance & Repair](#) for relevant equipment.

Also see the [Packaging](#) category.



(b) RELEVANT POTENTIAL LIFE CYCLE CIRCULAR APPROACHES:

<p>SOURCING: Circular Design</p>  <p>Reduce total amount of materials.</p>  <p>Reduce amount of virgin inputs.</p>	<p>USE: Circular Use</p>  <p>Extend the useful life.</p>	<p>END OF LIFE: Circular Recovery</p>  <p>Maximise the reusability of a product or component.</p>  <p>Maximise the reusability or recyclability of materials.</p>
<ul style="list-style-type: none"> • Include recycled content, low carbon, sustainably sourced and reduced toxicity materials. • Reused, refurbished/ remanufactured equipment, where appropriate, and with relevant warranties. • Rent or lease equipment including managed services and 'products as a service'. • Consider Type 1 ecolabel criteria for design, production, energy use and recycling, e.g. EPEAT, Blue Angel, TCO Certified. • Design for easy repair and upgrade, e.g. modular. • Consideration of whole life costs associated with the supply. • Reduce dependency on chemicals of concern where possible to facilitate reuse, remanufacture and recycling. 	<ul style="list-style-type: none"> • Ease of, and requirement for, maintenance, repair and refurbishment. • Product as a service e.g. servers, storage, printers, MFDs etc. • Optimise use, including upgrade components rather than replace equipment, where appropriate. • Energy efficiency ratings of equipment. • Loaning of equipment (e.g. Library of Things) 	<ul style="list-style-type: none"> • Link to sourcing - design and labelling (material composition) of products/ equipment for disassembly, repair, reuse, recycling, including plastics. • Data erasure and security in accordance with ISO/IEC 27040:2015 and NIST800-88. • Take back and reuse/ recycling of equipment/ materials/ packaging arrangements. • Potential resale of otherwise redundant equipment. • Remanufacture options for certain EEE products (e.g. mobile devices) and components. • WEEE recycling and disposal if no reuse or take-back options exist.

(c) THE MARKET FOR ICT

The status of circular approaches within market

<p>The market comprises a mix of large international (OEM) manufacturers, along with some specialist UK and</p> 	<p>Examples of circular approaches adopted include, but are not restricted to:</p> 	<p>Contracting authorities may therefore focus on circular objectives within ICT contracts.</p> 
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Scottish providers. ICT is also widely procured through suppliers with, in some cases, extensive sub-contractor supply chains, alongside many SMEs and some social enterprises that provide other reuse, refurbishment and repair services.

Global supply chains mean that Ethical and Fair ICT considerations are also a significant factor in procuring circular ICT solutions. All providers should have robust policies and plans in place to support the transition to net zero and a circular economy. The ICT market may be described as at a medium level of circular maturity with some consumer-facing areas (e.g. laptops and mobile devices) claiming strong green credentials through Type I ecolabels etc.

- Upgrade existing ICT to meet functional needs (see snapshot example below).
- Extend functional lifetimes through supporting maintenance, repair contracts – or combined product as a service contract.
- The potential application of circular business models – for example, ‘product as a service’ - through provision of essential equipment as a service, for example often used in printer/MFD provision and in cloud-based servers and storage.
- Take-back arrangements to extend use beyond first life – these enable OEMs to assess the potential for refurbishment and/or remanufacturing.
- Third-party take-back for reuse, refurbishment and/or remanufacturing.
- Pass end of life equipment for reuse/ donation in conjunction with third sector organisations.
- Use Whole Life Costing, or Total Cost of Ownership models to support demonstrating viability of circular supply solutions.
- ICT, office equipment, lighting contracts should be considered a ‘priority’ from a carbon reduction perspective – as the Supplier Selection section clarifies.
- Contract requirements should make the distinction between operational energy use (energy efficiency requirements) and embodied carbon and materials impacts.
- Given the market maturity, specifications that support circular outcomes may include technical requirements (for example, modular, recycled content, availability of spare parts, reduction in chemicals of concern, labour conditions etc) as well as outcome or performance-based specifications. Details are provided within the specifications section.

SNAPSHOT EXAMPLE – LESSONS LEARNED: CIRCULAR OUTCOMES AND REQUIRED PERFORMANCE, FROM AVOIDING STRAIGHT REPLACEMENT

Glasgow Kelvin College owned more than 400 lab and shared PCs that were approximately 6 years old. These were no longer running efficiently, so an ICT upgrade was required.

By employing life cycle impact mapping prior to the procurement process, they identified climate and other risks associated with purchasing new computers, which stimulated discussions around creative alternatives. They trialled replacing Hard-Disk Drives with new Solid State Hard Drives and upgrading computer memory. Upgrading more than 400 computers across Glasgow Kelvin College’s campus has significantly lower carbon footprint compared to buying new computers (as well as avoided the use of many new materials), improved the speed of computers, and increased user satisfaction.

Full details of the case study are available from [here](#).



(d) PRE-PROCUREMENT – the essential stage

As the circular procurement hierarchy describes in the Introduction to Category & Commodity Guidance, and the [‘BEFORE USING THIS GUIDANCE’](#) section this is the most important stage, before going to the market.

Making the right decisions, involving all key stakeholders, at this stage will optimise the most positive outcomes.

	✓
<ul style="list-style-type: none"> • Are the performance, quality, technical and sustainability (including circular) objectives clearly defined for the planned procurement? 	
<ul style="list-style-type: none"> • Does organisational policy/ contract arrangements enable end of life options such as reuse, donation, resale to be assessed, prior to WEEE recycling, subject to necessary data security and legal requirements? 	
<ul style="list-style-type: none"> • Have you identified, and engaged with, key stakeholders such as the end user, IT manager and budget holder, including discussing potential alternatives for meeting the functional need? 	
<ul style="list-style-type: none"> • Can existing ICT assets be redeployed, refurbished or upgraded to meet functional requirements, before going to market? 	
<ul style="list-style-type: none"> • Is there market capability to supply reused, refurbished or remanufactured ICT assets that meet the functional need? Is market dialogue required to determine what potential solutions can be offered? 	
<ul style="list-style-type: none"> • Have all relevant life cycle impacts and costs been considered, e.g. capital cost, maintenance, energy consumption and disposal (and/or reuse revenue) when evaluating different options? 	
<ul style="list-style-type: none"> • Have you considered the potential for alternatives to the norm, such as circular business models and innovative solutions, and the costs and benefits involved, for example, leasing, renting, product-as-a-service (which exist within the ICT, office equipment and lighting market)? 	
<ul style="list-style-type: none"> • Is market circular capability sufficient to support alternatives to ownership of new ICT assets and are there examples of how others have applied these in contracts of a similar nature and procurement framework? 	

Having considered the above and a decision regarding the planned procurement has been made, the Contract Notice may be used to highlight the importance of circular approaches to the Contracting Authority:



(e) PRE-TENDER STAGE & NOTIFICATION

Approach	Example
<p>Adopt a clear procurement hierarchy</p>	<ul style="list-style-type: none"> • Demand-side management using asset management systems and communication channels allows forecasting and planning for demand, reducing consumption where feasible. • Life extension through repair and upgrade, to avoid procurement. • Procurement of (or even obtaining free of charge) re-used / pre-owned equipment. This should be at a lower cost than new, although care has to be taken to obtain suitable certifications (e.g. on data cleansing) and warranties. • Managed services (where provision of the assets is part of the arrangement) or leasing of the electronic and electrical equipment (EEE). Any such arrangement should include maintenance and repair, and there is the opportunity to encourage the lease company to re-use, refurbish and repair ICT.
<p>Set out the aims and objectives of the planned procurement within Contract Notice, including relevant circular outcomes.</p>	<p>“The Contracting Authority has included obligations within the specification and contract conditions relating to the circular economy, support for the transition to net zero and related socio-economic outcomes which are relevant to the [ICT product(s) / service] to be delivered.”</p> <p>“The Contracting Authority has declared its intention to use Whole Life Costing in the Commercial evaluation of this tender.”</p> <p>Where the procurement has been identified as a ‘relevant’ or ‘priority’ climate change contract (see Supplier Selection) you must state this in your Contract Notice.</p> <p>It is also good practice to notify suppliers early in the process of particular conditions of the contract and as such this should also be included in the Contract Notice rather than just in the specification. For example:</p> <p>“A requirement of this contract is that all products supplied must meet the criteria set out in {Type 1 ecolabel} or equivalent.”</p>



(f) SUPPLIER SELECTION

Approach	Example
Include relevant climate selection criteria into your Single Procurement Document (SPD) in question 4C7 (and 4D2 where relevant):	<p>Where the procurement has been identified as a 'relevant' or 'priority' climate change contract (e.g. an ICT contract would normally be a 'priority'), you should see the Procurement Journey for the latest detail on potential suppliers providing necessary evidence of carbon reduction, for example a Climate Change Plan.</p> <p>You should ensure that any minimum standards are proportionate to the contract and are not overly onerous – this includes a potential requirement for ISO14001 Environmental Management System, or equivalent.</p>
To assess the capability of potential suppliers in enabling circular economy outcomes the following could be asked:	<p>"The contractor should demonstrate that they have delivered the minimum environmental standards required of the 'goods or services', including the application of circular economy outcomes, in previous contracts similar in nature to that required by the contracting authority, through relevant specialist capability."</p> <p>OR</p> <p>"Detail your experience in delivering [relevant ICT/ office equipment/ lighting assets] as a [product and/or service] that included the application of circular approaches which extended the useful life of relevant products or equipment, and/or enabled reuse, refurbishment beyond current use, and avoided unnecessary material use and waste, while enabling lower overall life cycle impacts and costs."</p>

An ideal response would demonstrate:

- Evidence of having assessed the lifetime of materials, products, equipment used within services, their maintenance and repair, reuse and refurbishment where relevant in the delivery of a contract similar in nature to the service required;
- Evidence of the management of re-use, repair, refurbishment and remanufacturing within its supply chain including sub-contractors and links to SMEs, third sector or supported businesses involved;
- Evidence of how equipment will be maintained/ serviced (may be under a separate contract), where appropriate and may include take-back options;
- Where equipment includes re-used, refurbished or remanufactured whole items or components, and that these meet quality and safety standards and are properly certified as appropriate and have relevant warranties;
- That, where possible, equipment will be re-used after being refurbished, data erasure, during and/or after the contract has expired, either for internal re-use or externally (for example used on other contracts, donated or sold);
- That redundant equipment, that is capable of cost-effective remanufacturing goes to a contractor for this purpose and then redeployed/sold; and,
- That packaging is minimised without compromising the product, avoids plastic where possible and contains more than [for example] 70% recycled content, that at least 90% [for example] of this is recyclable at end of life and is re-usable and re-used where possible. This may include packaging take-back options. – see the [Packaging](#) category for more details.



(g) SPECIFICATION, TENDER & EVALUATION

The following are examples of potential clauses that relate to the circular economy. These may need to be adjusted to suit the scope of a specific contract.

Given the nature of ICT, office equipment and lighting products and markets there will be other environmental and social risks and opportunities that are relevant, including energy efficiency and Fair IT practices across the ICT value chain, e.g. in sourcing, production, reuse and WEE recycling.

Specify relevant minimum requirements:

There will be potential technical requirements that relate to the physical quality, safety, content and life cycle functionality of EEE and related packaging.

Such requirements, as well as those that relate to circular outcomes which extend useful lifetimes and end of life recovery, including product warranties, design for ease of repair, reuse and durability, are included within, for example, within the [UK Government Buying Standards for electrical goods and office ICT](#) and the [EU Green Public Procurement Criteria](#) for electronic and electrical equipment which includes:

- Computers, monitors, tablets and smartphones (2021);
- Data centres, server rooms and cloud services (2020);
- Imaging Equipment, consumables, and print services (2020); and,
- Road lighting and traffic signals (2018).

Further criteria (albeit not updated since 2014) are also available for Electrical and Electronic Equipment used in the Health Care Sector on the [EU GPP criteria webpage](#). Further criteria on state of health (SoH) and battery endurance for EEE can be found in the [EU GPP criteria for computers, monitors, tablets and smartphones](#).

The requirement for safe/ non-toxic and quality products does not preclude consideration of circular approaches, as restrictions on toxic chemicals, for example, improves the reusability of products. The above standards also include a focus on, among other criteria, refurbishment, durability, design for disassembly and repair and extended warranties.

Please note: the following are examples of potential technical circular requirements. These are a sample, as users of this guidance should, for example, refer to the above standards for specific criteria, and means of verification, that may be relevant for a planned procurement. These clauses may need to be adjusted to suit the scope of a specific contract.

Specify: Refurbished/remanufactured product warranties

“The tenderer must provide products covered by X [at least 1/2 years] years warranty.”

AND

“The tenderer must provide a minimum of X years [to be defined] services as detailed in the Service Level Requirements document (describing how the service should be delivered to the customer).”



Specify: Design for the repair and upgrading of servers and data storage

“The tenderer must provide clear instructions to enable a non-destructive repair or replacement of the following components [for example]:

- data storage devices,
- memory,
- processor (CPU),
- motherboard,
- expansion cards/graphic cards,
- power supply unit (PSU),
- fans,
- batteries.

As a minimum, the instructions should include for each necessary repair operation and component:

1. the type of operation;
2. the type and number of fastening technique(s) to be unlocked;
3. the tool(s) required.”

See the [EU green public procurement criteria for data centres, server rooms and cloud services](#) for further details.

Specify: Durability /longevity

“For ICT equipment and ‘smart devices’ (i.e. those with significant processing capacity/internet capability), upgrading of key components must be possible, as a minimum in regard to memory (RAM and drives) and processing speed, by a professional repair service provider.”

AND

“All products should be provided with clear and concise hardcopy user manuals, including appropriate Quick Start Guides and trouble-shooting information, and telephone/online support.”

AND

“The tenderer shall guarantee the availability of spare parts, including as a minimum those identified above, for at least 5 years after the item ceases to be manufactured. Parts with improved specifications shall be backwardly compatible.

All parts should be clearly listed on the manufacturer’s website with relevant pricing and information on parts stockists. Spare parts and sub-assemblies should be reasonably priced to facilitate repair outside of warranty.”



Specify: Imaging Equipment consumables

“Imaging equipment must accept remanufactured toner and/or ink cartridges. Devices and practices that would prevent re-use of toner and/or ink cartridge (i.e. anti-reutilisation devices/ practices) should not be present or applied. Toner cartridges must also be refillable by the user. Imaging equipment must also accept paper containing recycled fibres that meets the requirements of EN12281.”

Specify: Lighting requirements

The purchase of new lighting, either in a whole building or a particular space, has a big influence on building energy consumption. A new lighting installation should reflect one which is more efficient economically and environmentally. The following requirements include the link from energy efficiency to optimising installation and use of equipment which supports circular outcomes:

- adopting a systems approach to specifying installed power. For new installations this could be installed lighting power (including lamps and ballasts and control gear) divided by the total floor area, in W/m^2 whilst for new lighting in a particular space in a building, the criterion is for the normalised power density in $W/m^2/100$ lux;
- optimising use of daylighting, where relevant;
- replacement of lamps with energy efficient alternatives, e.g. LED;
- use of Type 1 ecolabels for means of verification;
- criteria for covering energy efficient lighting controls that are commissioned properly, and that building occupants know how to use, and maintenance staff can adjust them in order to optimise longevity whilst minimising energy consumption; and,
- specifying a contract performance clause requires installers to reuse or recover waste materials as appropriate (see end-of-life and contract management below).

Specify: Recycled content

Where relevant information is available it may be appropriate to focus on minimum requirements for recycled content within products, materials or equipment:

“The Contractor will be required to support the transition to a circular economy through a focus on as a high a level of recycled content within equipment to be supplied as is technically feasible. The Contractor should detail recycled content within equipment to be supplied and means of verifying this.”

Specify relevant intended circular outcomes:

Please note: the following are examples of potential outcome circular requirements. These are a sample and may need to be adjusted to suit the scope of a specific contract.

“The Contractor shall support the Client’s aims to transition to a Circular Economy and net zero and will keep up to date with best practice circular opportunities within the ICT sector, which seek to reduce carbon emissions, material and resource use and waste.



The Contractor will develop, maintain and implement a relevant Circular Management Plan (EMP), with specific actions capable of being monitored and reported, including but not necessarily restricted to:

- Application of the waste hierarchy for [ICT, office equipment, lighting] materials, products, equipment and packaging used or installed.
- Optimise the useful life of equipment, materials and products used or installed within services provided.
- The use of durable and repairable products and equipment for which there is availability of spare parts and which are designed to prevent early obsolescence.
- The use of reclaimed, refurbished or remanufactured products, equipment, materials and tools which meet relevant performance, quality and warranty requirements.
- The use of low embodied carbon materials, products and equipment including those with highest feasible level of recycled content, with means of verifying this.
- Relevant circular business models for products, materials, equipment used which provide life cycle value.
- Essential workforce skills and training within service delivery that support a circular economy and transition to net zero.”

Specify end of life management

“Tenderers must provide a service for the:

- re-use and otherwise recycling of the whole product and/or:
- selective treatment of components in accordance with prevailing legislation (e.g. The Waste and Agriculture (Legislative Functions) Regulations 2022 which reflects and modifies Annex VII of the WEEE Directive) for equipment that has reached the end of its service life
- recycling of components in order to recover Critical Raw Materials.

The service must comprise the following activities:

- collection;
- confidential handling and secure data erasure (unless carried out in-house);
- functional testing, servicing, repair and upgrading to prepare products for re-use;
- the remarketing of products for re-use;
- dismantling for component re-use, recycling and/or disposal.

In providing the service, they must report on the proportion of equipment prepared or remarketed for re-use and the proportion of equipment prepared for recycling.

See the [EU green public procurement criteria for data centres, server rooms and cloud services](#) for further details.

Toner & Ink Cartridges

“In relation to printers/copiers/MFDs, tenderers shall provide a toner/ink cartridge take-back and refill/remanufacture service as part of the contract.”

Verification: Remanufactured cartridges must meet the standards of [UK Cartridge Remanufacturers Association Quality Mark](#). Declaration of conformity with the take-back requirement and a certificate from the UK CRA.



EVALUATION & AWARD CRITERIA:

Weightings will reflect relevant risks and opportunities as well as the reliance on technical or functional specifications.

Evaluators must have the capability to evaluate tenders that include a focus on circular outcomes, including subject matter experts.

Points may be awarded for, for example:

- A higher % of reused/refurbished items above a certain minimum requirement, with quantity reported.
- A higher % recycled content of products or packaging than the minimum requirement.

“Contractors are required to demonstrate in a Circular Management Plan:

- identify how they will identify, prioritise and select options to prevent life cycle waste, minimise carbon emissions and material use through optimising the useful life of [ICT, office equipment, lighting] products, materials or equipment used, installed or removed, including through innovative solutions, in conjunction with key stakeholders;
- [where relevant] use or install products, materials or equipment that have been refurbished or remanufactured and which are fit for intended use and meet all quality and performance requirements, including the provision of relevant warranties.
- how the approach proposed supports the Authority’s [Net Zero / Carbon Reduction] aims.

Responses should be SMART and capable of being monitored through contract management.”

An ideal response to the above may provide detail that supports some or all of the following [according to the scope of the contract]:

- How they will prioritise reused, refurbished or remanufactured products that meet the technical requirements and functional need. Where refurbished or remanufactured equipment is available evidence of their suitability to meet all requirements, including details of warranties available;
- How they will extend the useful life of products/ equipment through relevant maintenance, repair and refurbishment;
- How products, materials, equipment supplied are designed for durability, ease of disassembly, reuse, repair, recyclability;
- How products, materials or equipment minimise embodied carbon through inclusion of evidenced recycled content, reduced material use;
- Ability to provide (certified) embodied carbon figures for the products.
- Detail of relevant technical requirements or standards that the products or materials meet, that relate to relevant circular outcomes;
- How they will apply the waste hierarchy;
- How they will apply and manage the above throughout their relevant supply chain;
- How they will ensure that staff working on the contract have the necessary skills and training to practically implement circular approaches and support the transition to net zero;
- Explanation of proposed methods and metrics to monitor and report implementation of agreed circular outcomes – see Contract Management.



(h) CONTRACT & SUPPLIER MANAGEMENT

Contract management

Contract management requirements and KPIs will be considered when developing the specification/ ITT or may be agreed with the preferred bidder during the mobilisation period. This is a very important stage of the procurement process and ensures that evidence whether the intended, including circular, outcomes are being delivered or not is made available. This ensures there is evidence of how the procurement has contributed to aligned objectives.

KPIs – whilst monitoring contractual delivery and compliance – can be used to drive continual improvement in all aspects, particularly with respect to circular and environmental outcomes (e.g. ongoing increase in recycled content). The use of quantitative KPIs is dependent on the availability of a baseline against which to measure improvement. This may not always be readily available, in which case focus on qualitative improvement.

Monitoring technical requirements:

Technical requirements may need to be continually monitored, such as compliance with required standards.

For example, a contract condition such as the following would need to be monitored by the provision of appropriate evidence:

“Products used must contain a minimum of [x%] recycled content – the actual % of recycled content delivered against that specified shall be reported.”

OR

“The supplier agrees to increase the proportion of otherwise redundant equipment that is re-used, refurbished or remanufactured by X% after 12 months and by a further Y% after 24 months.”

Monitoring intended outcomes:

Reporting on the end-destination of ICT equipment

“The contractor must provide a report on the status of the equipment in the inventory once all items have been processed for re-use, recycling or disposal. The report must identify the proportion of items re-used or recycled, and their final destination.”

See the [Packaging](#) category regarding potential reporting of ICT, office equipment, lighting packaging reused/ recycled content and others.

Monitoring of IT equipment utilisation

“Where relevant (e.g. services contracts), the contractor must provide periodical reporting of optimisation analysis and the achievement of utilisation targets agreed with the client during the specific IT project. The service provider must measure and report monthly the utilisation rate of the IT assets agreed based on a methodology agreed with the client, e.g. ISO 30134-5.”



Potential contract management requirements and KPIs – it is not expected all of these will be relevant for all contracts so would need to be agreed.

Circular life cycle focus		Potential KPI, where data can be provided
Sourcing: supply of products/ materials/ equipment.	How has the Contractor: <ul style="list-style-type: none"> Reduced the supply or use of products, while ensuring delivery of [specified ICT] requirements? Improved the embodied carbon of products/ equipment used or installed, including highest level feasible recycled content/ relevant use of refurbished or remanufactured products? 	<ul style="list-style-type: none"> No. of products/ materials/equipment used Quantity that incorporates circular design Recycled content % Material use avoided £, % or kg Recyclable % Reduction in CO₂ footprint of products/ materials/supply CO₂e Supply/ use of refurbished /remanufactured products/materials and/or products as a service
Use: use of products/ materials/ equipment	Commitment to repair as first remedy. How has the Contractor: <ul style="list-style-type: none"> Enabled repair or refurbishment of products, materials or equipment supplied or used? Enabled relevant reuse of products or materials? Delivered the service to reduce emissions? 	<ul style="list-style-type: none"> Number of incidents resolved within a product repair or upgrade Number of incidents resolved within a product replacement. Reuse number, % or kg Repair/ Refurbish number, % or kg Waste avoided % or kg Quantity of products/ materials/ equipment with extended warranties CO₂e impact of service journeys / reduced number of journeys?
End of Life management: products, equipment, packaging	How has the Contractor applied the waste hierarchy, including though improving: <ul style="list-style-type: none"> The design of products or materials supplied or used so that they are easy to reuse or recycle. Reuse or resale of otherwise redundant products, materials, equipment or components. Recycling of products or materials. 	<ul style="list-style-type: none"> Waste avoided £, % or kg Reuse number, % or kg Recycled % or kg A list of items sold by the Contractor together with a statement of the proceeds of sale.

Continual improvement

“The Contractor is required to work with the Client to continually improve the availability and accuracy of data and information provided that demonstrates how they are meeting the Client’s objectives, and/or identifies opportunities for further improvement in environmental, circular and related social outcomes. In particular, the Contractor is required to inform of all relevant Circular Economy opportunities arising from the service and work with the Client to assess and implement those that align with value for money and cost certainty.”



FLOORING

(a) SCOPE OF GUIDANCE



- Provision of flooring products and services - including carpeting, vinyl, rubber, linoleum, wooden and potentially stone. This can include those which must meet strict safety and quality requirements (e.g. NHS Scotland flooring products and services).

- This also includes temporary internal and external flooring.

Flooring involves the use and maintenance of materials and products to which the following circular approaches may apply, with the emphasis on avoiding waste, minimise carbon, extending useful life and enabling reuse and recycling.

Related category:

See the [Packaging](#) category.



(b) RELEVANT POTENTIAL LIFE CYCLE CIRCULAR APPROACHES:

SOURCING: Circular Design

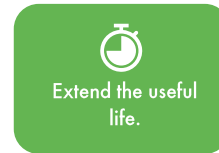


Reduce total amount of materials.



Reduce amount of virgin inputs.

USE: Circular Use



Extend the useful life.

END OF LIFE: Circular Recovery



Maximise the reusability of a product or component.



Maximise the reusability or recyclability of materials.

- Design and manufacture of flooring to avoid toxic chemicals and waste and optimise sustainable and low carbon materials, the highest level feasible recycled content and fully recyclable - within product and primary and secondary packaging.
- Design of flooring for durability and ease of repair and maintenance.
- Design of flooring to enable reuse of flooring and materials.
- Flooring that meets Environmental Product Declarations (EPDs) and 3rd party certifications.
- Supply of reused flooring (internally or externally).
- Flooring hired, leased or potentially as a service.
- Re-usable/ recyclable packaging.
- Consideration of life cycle costs for the supply.

- Ease of, and requirement for, maintenance, repair and refurbishment of flooring (part of a service or a separate contract) to extend useful life of flooring.
- Optimise use and maintenance of flooring.

- Closed loop – materials put back into manufacturing process.
- Link to sourcing - design of flooring for repair, reuse, recycling.
- Re-use of flooring and materials that reaches the end of its life within the contracting authority/ community but may be re-used elsewhere, including for low-income families.
- Traceable recovery of materials used to produce flooring, which can be reused or sold as raw materials for other production.
- Take back and reuse of flooring and packaging.
- Otherwise recycling of flooring and packaging.



Carbon and waste impact of flooring

- In the UK c400,000 tonnes of carpet waste is disposed of each year, the majority of which is post-consumer, with c175,000 being post-manufactured (clean) material (Source: [Spruce](#)).
- Floor finishes account for approximately 10% of the embodied carbon emissions of a Healthcare building.
- Maintenance can account for up to 80% of a floor's life cycle carbon footprint and 90% of life cycle costs, emphasizing the importance of durable, low-maintenance floors, which avoid unnecessary replacements and are easy to clean and meet relevant protocols.

Bio-based and biodegradable flooring

While bio-degradable flooring will, in theory, fully decompose, this is dependent on whether they can be effectively composted through the local waste management infrastructure.

Those which are 'bio-based' polymers will not be biodegradable. In practice materials selected should be low carbon impact, sustainable, reusable, recyclable, easy to separate and maintain and also reflect local waste infrastructure¹.

Life Cycle Costs

The range of life cycle costs for flooring may include the costs of flooring products, installation, removal of old flooring, maintenance and repair, cleaning of flooring, end of life flooring. If flooring is provided as a service, some or all of these costs may be included within the service.

¹ Zero Avoidable Waste in Flooring – Towards a Circular Economy: <https://cfa.org.uk/userfiles/files/Zero%20Avoidable%20Waste%20in%20Flooring%20-%20A%20Scoping%20Study.pdf> and LEADING THE CARPET INDUSTRY TOWARDS CIRCULAR ECONOMY A 2030 STRATEGIC APPROACH European Carpet Association <https://circulareconomy.europa.eu/platform/en/knowledge/leading-carpet-industry-towards-circular-economy-2030-strategic-approach>



(c) THE MARKET FOR FLOORING PRODUCTS AND SERVICES

The status of circular approaches within market

The market for commercial flooring comprises some major Scottish, UK, European and international businesses and smaller specialist, manufacturers and distributors.



Major businesses have applied circular approaches for some time, with a specific focus by others on new materials. The market is at a relatively mature, and increasing, level of circularity.

VinylPlus® is the European PVC industry's commitment to improve PVC products' circularity. It covers the EU-27, Norway, Switzerland and the UK. The [Circular flooring EU](#) project also establishes a circular recycling process for post-consumer PVC floor coverings.

[Carpet Recycling UK](#) (CRUK) includes many UK carpet manufacturers and distributors.

[Scottish Health Technical Note 02-01](#) - Sustainable Design and Construction Guide, includes potential circular practices, including flooring as a service. [Scottish Health Technical Memorandum 61: Flooring](#) includes: 'The Life Cycle of the floor finish should be considered in the selection process and must take into consideration relevant manufacturer's data, including the environmental impact of both production and future recycling of the material.'

Some circular office suppliers in Scotland can be found [here](#).

Examples of circular approaches adopted include, but are not restricted to:



- **Circular manufacturing** – in some cases up to 100% recycled content for carpet tile backing and fully recyclable products, durable products, sustainable materials such as cork, wool, waste resources (e.g., coffee grounds, discarded fishing nets), wood and plant fibres, flax, jute and linseed oil for linoleum. Some natural flooring may help reduce noise.
- **Supply of reused flooring** – by Scottish third sector organisations collected from Household Waste Recycling Centres, including for low-income families.
- **Reuse and recycling** – reuse of existing flooring, supply of reused, take back old carpet and vinyl flooring for reuse and recycling, carpet tiles and carpets closed loop model with old tiles or carpeting put back into the manufacturing process.
- **Circular business models** – for example hire of carpet tiles/ lease models.
- **Certified flooring** - flooring that meets Environmental Product Declarations and independent 3rd party verification – some Cradle to Cradle certified as CO₂ neutral (cradle to gate).
- **Temporary outdoor walkway products** - made from recycled polypropylene materials and are recyclable.

Contracting authorities may therefore confidently focus on circular objectives within flooring products and services contracts.



- The scope of contract requirements will determine whether flooring represents a 'priority' from a carbon reduction perspective – as the Supplier Selection section clarifies.
- Given the level of market maturity, specifications that support circular outcomes may include technical requirements as well as outcome or performance-based specifications. Details are provided within the specifications section.



SNAPSHOT EXAMPLE – KEY LESSONS: CIRCULAR APPROACHES AVAILABLE WITHIN FLOORING MARKET

CIRCULAR FLOORING IN PRACTICE

A number of examples of circular flooring practices exist. These are not detailed in full here but include:

- Within Scotland the reuse of otherwise waste flooring (vinyl, carpeting, carpet tiles) by a social enterprise for low-income families.
- Within Scotland and elsewhere the recycling of all types of carpet waste for fibre reprocessing, including bitumen backed carpet tiles (for roadstone/roofing).
- The supply and installation of reused raised modular flooring (where relevant) with full warranty which may save 20% costs and reduce embodied carbon (as verified by environmental product declaration) by c50% relative to a new system.
- A detailed EU GPP case study on setting reclamation targets in a redevelopment tender by SERS (Société d'Aménagement et d'Équipement de la Région de Strasbourg), includes detail of the reclamation of floor tiles. See [here](#).



(d) PRE-PROCUREMENT – the essential stage

As the circular procurement hierarchy describes in the Introduction to Category & Commodity Guidance, and the [‘BEFORE USING THIS GUIDANCE’](#) section this is the most important stage, before going to the market, as making the right decisions at this stage will optimise the most positive outcomes.



<ul style="list-style-type: none"> • Are performance, quality, technical, sustainability, including circular, objectives clearly defined for the planned procurement e.g. a circular flooring policy, including risk-based requirements (such as hygiene)? 	
<ul style="list-style-type: none"> • Have you identified, and engaged with, key stakeholders such as end user, facilities & estates managers and budget holder, including discussing potential alternatives for meeting the functional need? 	
<ul style="list-style-type: none"> • Can existing flooring be redeployed, repaired or refurbished to meet functional requirements before going to market? 	
<ul style="list-style-type: none"> • Is it understood there is market capability to (1) supply reused flooring that meets quality and functional need (2) support alternatives to ownership of new flooring, with examples (3) supply low carbon impact, durable, reusable, recyclable, easy to maintain flooring? 	
<ul style="list-style-type: none"> • Have relevant life cycle impacts and costs been considered, e.g. supply, installation, maintenance, end of life when evaluating options? 	
<ul style="list-style-type: none"> • Have you considered the potential for alternatives to the norm, such as circular business models, and the costs and benefits involved, for example, leasing, renting, flooring products-as-a-service? 	

Having considered the above regarding the planned procurement, the Contract Notice may be used to highlight the importance of circular approaches:

(e) PRE-TENDER NOTIFICATION

Approach	Example
Set out the aims and objectives of the planned procurement within Contract Notice, including relevant circular outcomes.	<p>“The Contracting Authority has included obligations within the specification and contract conditions relating to the durability, maintenance, refurbishment, re-use and end of life reuse or recycling of flooring which are relevant to the service to be delivered.”</p> <p>It is also good practice to notify suppliers early in the process of particular conditions of the contract and as such this should also be included in the Contract Notice rather than just in the specification. For example: “A requirement of this contract is that a minimum of [X] % of [carpet tiles] supplied are derived from re-used and remanufactured content.”</p> <p>State in the Contract Notice where the procurement has been identified as a ‘relevant’ or ‘priority’ climate change contract (see Supplier Selection).</p>



(f) SUPPLIER SELECTION

Approach	Example
Include relevant climate selection criteria into your Single Procurement Document (SPD) in question 4C7:	Where the procurement has been identified as a 'relevant' or 'priority' climate change contract (e.g. a flooring service which involves the supply, installation, maintenance and repair and removal and reuse of flooring, involves the use of materials, vehicles, fuel and energy so may be a 'priority', depending on the scope of the contract, and otherwise 'relevant'), you should see the Procurement Journey for the latest detail on potential suppliers providing necessary evidence of carbon reduction.
To assess the capability of potential suppliers in enabling circular economy outcomes the following could be asked:	<p>'The contractor should demonstrate that they have delivered the minimum environmental standards required of the 'services', including the application of circular economy outcomes, in previous contracts similar in nature to that required by the contracting authority, through relevant specialist capability.' OR</p> <p>'Detail your experience in delivering a flooring service that included the application of circular approaches which extended the useful life of relevant flooring and avoided unnecessary carbon emissions, material use and waste.'</p>

An ideal response would demonstrate:

- [Evidence of having assessed the design of flooring to apply relevant circular approaches – including the use of sustainable and circular materials, application of waste hierarchy, reuse of materials and flooring.]
- [Evidence of circular life cycle assessment and management of flooring within services, maintenance and repair, reuse and refurbishment where relevant in the delivery of a contract similar in nature to the service required;]
- Evidence of having used re-used, recycled, sustainably sourced, repaired or refurbished flooring in the delivery of a contract similar in nature to the service required;
- Evidence of the management of re-use, repair and refurbishment within its supply chain including sub-contractors and links to SMEs, third sector or supported businesses involved;
- Evidence of understanding the key circular economy opportunities and management requirements, including an example Management Plan.



(g) SPECIFICATION, TENDER & EVALUATION

The following are examples of potential clauses. These may need to be adjusted to suit the scope of a specific contract.

Specify relevant minimum requirements:

There will be potential technical requirements that relate to the performance and quality of flooring products as well as related packaging involved within services. These include the requirement that floorings must comply with, for example, functional requirements, such as the following (some of this is especially relevant to catering and healthcare environments):

- Easy to clean & maintain.
- Naturally bacteriostatic and Allergy UK approved.
- Anti-static.
- Durable.
- Resistant to chemicals and heat.
- Hygienic.
- Stain & scratch resistant.
- Non-toxic materials, including free from volatile organic compounds (VOCs) in line with current UK indoor air quality standards.
- Slip-resistance.

Flooring may also meet various Environmental Product Declarations. While these provide some comfort regarding toxic materials and other criteria, they would need to be checked whether they specifically deal with relevant circular approaches.

It may be appropriate to require flooring meet:

- Cradle to Cradle certified criteria for flooring. See [here](#).
- The EU Ecolabel for Wood, cork and bamboo-based floor coverings. See [here](#).
- The requirement for all wood-based products:
 - Independently verifiable compliance with UK Government Timber Procurement Policy, with timber from legal and sustainable sources, which can include a Forest Law Enforcement Governance and Trade (FLEGT)-licensed or equivalent source, in all installations.

Carpet and carpet tile re-use requirements: "Carpet tiles to be uplifted by the removal contractor at the earliest possible stage in the refurbishment process to ensure that they stay clean and uncontaminated."

"Contractor to establish suitability of the carpet for the [reuse] [recycling] process." (Some organisations may require a small sample of the carpet to be sent to them for testing, others may only require photographs of the carpet).

Specify warranty requirements: "The tenderer shall provide a minimum [XX] year (this will be product specific) warranty for new flooring products effective from delivery of the product. Refurbished and remanufactured products should be supplied with the same warranty and meet Scottish Revolve standards for re-use as a minimum, or



equivalent. This warranty shall cover repair or replacement and include a service agreement with a pick-up and return option. The warranty shall guarantee that the goods are in conformity with the contract specifications at no additional cost.”

Skills and training requirements: ensure that the relevant contractor workforce have the skills and training to deliver flooring services that support the circular economy:

“The Contractor must ensure that all staff and supply chain partners involved in carrying out flooring services are appropriately trained (ensuring that relevant records are available) to manage products and packaging to support the circular economy, including through transferable skills and qualifications.”

Specify relevant intended circular outcomes:

In addition to minimum requirements the following specifies required circular outcomes.

“The Contractor shall support the Client’s aims to transition to a Circular Economy and net zero and will keep up to date with best practice circular opportunities within the flooring sector, which seek to reduce carbon emissions, material and resource use and waste.

The Contractor will develop, maintain and implement a relevant Circular Management Plan (EMP), with specific actions capable of being objectively monitored and reported, including but not necessarily restricted to (delete/ adjust as applicable according to the subject matter of the contract):

- Cost-effectively providing flooring services which maximises, where practical, the durability and ease of maintenance of flooring and minimises the use of materials, resources and reducing the life cycle costs of flooring service delivery;
- Maximising inclusion of highest level feasible sustainable materials/ recycled content;
- The provision of reused flooring that meets relevant technical requirements;
- Maintenance and repair of installed flooring;
- The re-use, refurbishment and remanufacturing and otherwise recycling of flooring at the end of life;
- Working with third sector organisations to enhance re-use of flooring.
- Avoid where practical the use of single use plastics and toxic materials within products and packaging;
- Essential workforce skills and training within service delivery that support a circular economy and transition to net zero while enabling opportunities for local jobs and skills development that supports these objectives, with a particular focus on those further from the jobs market and the relevant involvement of MSMEs and VCSEs (e.g. young, long term unemployed [or others according to [Contracting Authority] objectives]).”

EVALUATION & AWARD CRITERIA:

Weightings will reflect relevant risks and opportunities as well as the reliance on technical or functional specifications.

Evaluators must have the capability to evaluate tenders that include a focus on circular outcomes, including subject matter experts.

“Contractors are required to demonstrate in a Circular Management Plan:

- how they will identify, prioritise and select options to prevent life cycle waste, minimise carbon emissions and material use through the sourcing, installation and end of life management of flooring and packaging used, installed or removed, including through innovative solutions, in conjunction with key stakeholders;



-
- [where relevant] use relevant flooring that has been pre-owned/ re-used and which is fit for intended use and meet all quality, performance and safety requirements, including the provision of relevant warranties.

Responses should be SMART and capable of being monitored through contract management.”

An ideal response may provide detail that supports some or all of the following [according to the scope of the contract]:

-
- How flooring and packaging are based on an assessment of toxicity, sustainability, use and end of life options that prevent pollution and support circular outcomes;
 - That flooring products meet minimum technical specifications;
 - Detail of relevant technical requirements or standards that flooring meet, that relate to relevant circular outcomes;
 - That flooring supplied may include re-used, refurbished or remanufactured products that meets quality and safety standards;
 - How flooring supplied is designed for durability, ease of maintenance, repair and refurbishment, reuse and recyclability;
 - How they will apply the waste hierarchy to management of relevant flooring;
 - How they will apply and manage the above throughout their relevant supply chain;
 - How they will ensure that staff working on the contract have necessary skills and training to implement circular and net zero approaches;
 - Explanation of proposed methods and metrics to monitor and report implementation of agreed circular outcomes – see Contract Management for details.
-



(h) CONTRACT & SUPPLIER MANAGEMENT

Contract management

Contract management requirements and KPIs will be considered when developing the specification/ ITT or may be agreed with the preferred bidder during the mobilisation period.

This is a very important stage of the procurement process and ensures that evidence whether the intended, including circular, outcomes are being delivered or not is made available. This ensures there is evidence of how the procurement has contributed to aligned objectives.

Monitoring minimum requirements:

Technical requirements may need to be continually monitored such as compliance with required standards.

For example, a contract condition such as the following would need to be monitored by the provision of appropriate evidence:

“The Contractor must ensure that all staff and supply chain partners involved in carrying out flooring services are appropriately trained (ensuring that relevant records are available) to manage products and packaging to support the circular economy, including through transferable skills and qualifications.”

This may include, for example, the provision of training records.

Monitoring intended outcomes:

The use of quantitative KPIs is dependent on the availability of a baseline against which to measure improvement. This may not always be readily available, in which case focus on qualitative improvement in circular supply.

“The Supplier shall in the performance of the Contract provide a report to the Contracting Authority on a [quarterly] basis utilising the template (attached*) setting out the proportion of flooring and materials used in the supply/ installation of flooring that is re-used, sustainably sourced, contains recycled content and which is capable of being re-used, refurbished or remanufactured at the end of its life.”



Potential contract management requirements and KPIs – it is not expected all of these will be relevant for all contracts so would need to be agreed.

	Circular life cycle focus	Potential KPI, where data can be provided
Sourcing: supply of flooring services or products	How has the Contractor: <ul style="list-style-type: none"> Reduced the toxicity and improved the circularity of flooring supplied, installed or used in services? Used pre-owned flooring, where relevant? Adopted business models to the sourcing of required flooring that support circular outcomes? 	<ul style="list-style-type: none"> % recycled content. Number or % hired/ rented/ flooring as a service. % of flooring supplied that is re-used, with relevant warranty. % of flooring that is capable of re-use/refurbishment/ remanufacture/ recycling.
Use: use of flooring	How has the Contractor: <ul style="list-style-type: none"> Enabled repair or refurbishment of flooring supplied or used? Enabled relevant reuse of flooring? 	<ul style="list-style-type: none"> Reuse number, % or kg Repair/ Refurbish number, % or kg
End of Life management	How has the Contractor applied the waste hierarchy in the management of flooring or packaging, including though improving: <ul style="list-style-type: none"> The reuse of flooring? Closed loop reuse or recycling of flooring or packaging. 	<ul style="list-style-type: none"> Reuse number, % or kg, including destination Recycled % or kg

Continual improvement

“The Contractor is required to work with the Client to continually improve the availability and accuracy of data and information provided that demonstrates how they are meeting the Client’s objectives, and/or identifies opportunities for further improvement in environmental, circular and related social outcomes. In particular, the Contractor is required to inform of all relevant Circular Economy opportunities arising from the service and work with the Client to assess and implement those that align with value for money and cost certainty.” This may, for example, include the development of innovation relating to pitches and surfacing and prevailing environmental restrictions.

FURNITURE

(a) SCOPE OF GUIDANCE



Furniture covers a range of products and services including, but not limited to:

- Office furniture.
- Education furniture.
- Domestic and residential furniture.
- Other indoor and outdoor furniture such as catering, healthcare or play.
- Furniture fittings and furnishings.
- General storage, racking and shelving.

- Furniture may be part of a relevant service such as Facilities Management, health and social care or a managed furniture service, which covers supply, installation, maintenance, removal and redeployment.
- Materials include plastics, rubber, metals, upholstery, wood and, potentially, animal products.

According to [FIRA](#), office chairs with height mechanisms produce a total of 72kg of CO₂(e) in their lifetime, while a standard workstation desk can range from 35-63kg of CO₂(e) depending on the size. Office furniture is therefore a high carbon category. Adopting circular solutions, particularly options for reuse and repair, to retain the embodied carbon, will significantly help reduce embodied carbon of the category/ products.

Related category:
See the [Packaging](#) category.

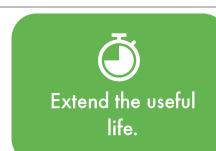


(b) RELEVANT POTENTIAL LIFE CYCLE CIRCULAR APPROACHES

SOURCING:
Circular Design



USE:
Circular Use



END OF LIFE:
Circular Recovery



- Include recycled content, low carbon, sustainably sourced and reduced toxicity materials.
- Reused, refurbished/ remanufactured furniture, where appropriate and with relevant warranties.
- Rent or lease furniture.
- Consider Type 1 ecolabel criteria for design, production, use and recycling, e.g. [EU ecolabel \(Furniture\)](#), [Blue Angel \(outdoor and office furniture\)](#), [C2C certified](#).
- Cradle to cradle circular design; consider low-impact material choices in design.

- Ease of, and requirement for, maintenance, repair and refurbishment, e.g. through maintenance & repair (e.g. FM) contracts as well as specific furniture repair services.
- Flexible and/or modular workspaces can help facilitate the introduction of reused furniture.
- Optimise use through internal platforms to avoid storage issues.




- Link to sourcing - design and labelling (material composition) of furniture for disassembly, repair, reuse, recycling, including plastics.
- Take back and reuse/ recycling of furniture/ packaging arrangements.
- Potential resale of otherwise redundant furniture or donation through reuse exchange platforms, and/or donation to third sector organisations.
- Disposal through accredited recyclers as a last resort.



<ul style="list-style-type: none"> • Design for easy repair and upgrade, e.g. modular. • Consideration of whole life costs associated with the supply. 	<ul style="list-style-type: none"> • Loaning of furniture (e.g. Library of Things). 	
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THE MARKET FOR FURNITURE

The status of circular approaches within market

<p>The UK office furniture market in 2023 exceeded £1 billion including manufacture and, mainly, supply, and an important proportion relates to Scottish public sector requirements.</p> <p>Hybrid (home/office-working) has increased demand for home office furniture. This may be cheaper ‘fast furniture’ from the domestic sector, which typically do not have the warranties or lifetime of commercial supplies.</p> <p>Scottish suppliers are mainly small to medium size complementing a number of large UK-wide commercial office furniture suppliers.</p> <p>There are also numerous reused domestic and residential furniture suppliers, dominated by third sector organisations.</p> 	<p>Examples of circular approaches adopted include, but are not restricted to:</p>  <ul style="list-style-type: none"> • Specifying minimum quantities of reused furniture in large contracts – significant scope exists for reusing or specifying reused furniture. • Extend functional lifetimes through supporting maintenance, repair contracts – or combined product as a service contract. • Take-back arrangements to extend use beyond first life – these may include separate collection arrangements through a third party and/or with a third sector organisation. • Third-party collection / take-back to assess the potential for reuse, refurbishment and/or remanufacturing, e.g. Circular Communities Scotland. • The supply of remodeled or remanufactured furniture, many with lower life cycle cost than new. • Use Life Cycle Costing to demonstrate viability of circular supply solutions. 	<p>Contracting authorities may therefore focus on circular objectives within furniture contracts.</p>  <ul style="list-style-type: none"> • Depending on the size and scope of a contract, furniture may be considered a ‘priority’ from a carbon reduction perspective – as the Supplier Selection section clarifies. • Contract requirements should make the distinction between operational energy use (energy efficiency requirements) and embodied carbon and materials impacts. • Specifications that support circular outcomes may include technical requirements such as reused furniture, recycled content, availability of spare parts, warranties and repair manuals. Details are provided within the specifications section. • Particularly in service contracts, there is considerable scope for the involvement of third sector and supported businesses and relevant employment, skills and training.
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SNAPSHOT EXAMPLE – LESSONS LEARNED: DIALOGUE WITH MARKET INFORMS RELEVANT CIRCULAR REQUIREMENTS IN TENDER AND ENABLES MARKET TO DEVELOP CIRCULAR OFFERING

NHS Scotland Furniture

The development of the Framework Agreement for the supply of Furniture and Associated Services to NHS Scotland involved a supplier engagement event which set out NHS Scotland's ambitions regarding circular furniture and sought evidence of market capability. A survey of the market, via a Prior Information Notice, had earlier been undertaken.



This informed the specification which included, among others, requirements regarding: hazardous materials and chemicals, design for reuse, refurbishment and repair, availability of spare parts, plastic parts marked for recycling, compliance with relevant UK technical and quality standards, or equivalent, for serviceability, as in FIRA Standards, % by weight recycled content and/or refurbished and reused components of wood/plastics/metals/textiles indicated, timber to originate from verified legal and sustainable sources or use reclaimed/recycled timber.

The specification also sought evidence of the availability and management of:

- Sourcing furniture which may be re-used, refurbished, remanufactured in lieu of new, and meet all quality and warranty requirements.
- Repair, renovation and re-upholstery services.
- End of life - manage in accordance with the waste hierarchy, include take back and involvement of 3rd sector and supported businesses.
- Re-use – facilitate where practical reuse within the customer or reuse externally, including in conjunction with third parties.
- Repair/ refurbish and/or remanufacture end of life furniture - that may be supplied to other customers.
- Recycling – Where reuse/refurbish or remanufacture of products or materials is not possible high-quality recycling.

It also sought the development of the following during the lifetime of the framework:

- Hire, rental or leasing of products - that meet the circular requirements and objectives in lieu of purchased products.
- Product service systems.
- Asset management services.
- End to end project planning – including, but not necessarily restricted to space planning, supply, installation, movement, end of life.

(C) PRE-PROCUREMENT – the essential stage

As the circular procurement hierarchy describes in the Introduction to Category & Commodity Guidance, and the '[BEFORE USING THIS GUIDANCE](#)' section this is the most important stage, before going to the market. Making the right decisions, involving all key stakeholders, at this stage will optimise the most positive outcomes.



• Are performance, quality, technical and sustainability (including circular) objectives clearly defined for the planned procurement?	
• Have you identified, and engaged with, key stakeholders such as end user, facilities & estates managers and budget holder, including discussing potential alternatives for meeting the functional need?	
• Can existing furniture be redeployed, refurbished or upgraded to meet functional requirements before going to market?	
• Is it understood whether there is market capability to (1) supply reused, refurbished, remanufactured furniture that meets functional need or (2) support alternatives to ownership of new furniture with examples of how this has been applied in similar contracts?	
• Have relevant life cycle impacts and costs been considered, e.g. supply, maintenance, deployment, end of life when evaluating options?	
• Is the furniture market sufficiently mature for you to consider the potential for alternatives to the norm, such as circular business models and innovative solutions, and the costs and benefits involved, for example, leasing, renting, furniture products-as-a-service?	

Having considered the above and a decision regarding the planned procurement has been made, the Contract Notice may be used to highlight the importance of circular approaches to the Contracting Authority:

(d) PRE-TENDER NOTIFICATION

Approach	Example
Set out aims of the planned procurement within Contract Notice, including relevant circular outcomes.	<p>"The Contracting Authority has included obligations within the specification and contract conditions relating to support for the circular economy, transition to net zero and related socio-economic outcomes. This includes, among others, relevant durability, repairability, re-use and remanufacturing of furniture. The Contracting Authority also intends to use Life Cycle Costing in the Commercial evaluation."</p> <p>Where the procurement has been identified as a 'relevant' or 'priority' climate change contract (see Supplier Selection) you must state this in your Contract Notice. It is also good practice to notify suppliers of particular conditions of the contract in the Contract Notice. For example: 'A requirement of this contract is that all products supplied must meet the criteria set out in {Type 1 ecolabel} or equivalent.'</p>

(e) SUPPLIER SELECTION

Approach	Example
Include relevant climate selection criteria into your Single Procurement Document (SPD) in question 4C7 (and 4D2 where relevant):	Where the procurement has been identified as a 'relevant' or 'priority' climate change contract (e.g. as part of a large scale FM contract may be a 'priority' depending on value), you should see the Procurement Journey for the latest detail on potential suppliers providing necessary evidence of carbon reduction, for example a Climate Change Plan . You should ensure that any minimum standards are proportionate to the contract and are not overly onerous.



<p>To assess the capability of potential suppliers in enabling circular economy outcomes the following could be asked:</p>	<p>“The contractor should demonstrate that they have delivered the minimum environmental standards required of the ‘furniture goods or services’, including the application of circular economy outcomes, in previous contracts similar in nature to that required by the contracting authority, through relevant specialist capability.” OR</p> <p>“Detail your experience in delivering {relevant furniture, e.g. educational, office, residential} as a [product] OR [as alternative to ownership that enable lower overall life cycle impacts and costs, for example (but not limited to) ‘furniture products as a service’] that included the application of circular approaches which extended the useful life of the furniture, and/or enabled repair, reuse, refurbishment beyond current use, and avoided unnecessary material use and waste.”</p> <p>Where the supplier is bidding for the supply of reused domestic furniture it may be appropriate to require evidence that they meet the Revolve standards, or equivalent. Re-use organisations which have achieved Revolve certification have proven that they meet the strict standards for legal requirements and product safety, involving a review of health and safety practices and risk assessment.</p>
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An ideal response would demonstrate (according to subject matter of contract):

- Evidence of having assessed the lifetime of furniture materials, products and/or services, including maintenance and repair, reuse and refurbishment where relevant in the delivery of a contract similar in nature to the requirement;
- Evidence of having managed the re-use, repair, refurbishment and remanufacturing within its supply chain including sub-contractors, SMEs, third sector or supported businesses;
- Evidence of having supplied furniture as a service which delivered life cycle environmental and monetary value.



(f) SPECIFICATION, TENDER & EVALUATION

The following are examples of potential clauses. These may need to be adjusted to suit the scope of a specific contract.

Specify technical requirements:

There will be potential technical requirements that relate to the physical quality, safety, content and life cycle functionality of furniture products or related packaging.

These include compliance with the [Furniture and Furnishings \(Fire Safety\) Regulations 1988](#) (as amended in 1989, 1993 and 2010) which are designed to ensure that upholstery components and composites used for furniture supplied in the UK meet specified ignition resistance levels and are suitably labelled. It also includes prohibition of various chemicals of concern, including halogenated organic compounds as blowing agents within upholstery.

Such requirements are included within furniture standards described by the Furniture Industry Research Association ([FIRA](#)) and within, for example, the [EU Green Public Procurement Criteria for Furniture](#) which includes meeting criteria within the [EU Ecolabel for furniture](#) and the [UK Government Buying Standard for Office Furniture](#).

The requirement for safe/ non-toxic and quality products does not preclude consideration of circular approaches, as restrictions on toxic chemicals, for example, improves the reusability of products. The above standards also include a focus on, among other criteria, refurbishment, durability, design for disassembly and repair and extended warranties.

Specific relevant requirements include:

This guidance does not repeat all of the specifications within these standards but signposts where relevant and highlights key technical and outcome requirements (users should be aware that these standards may be updated over time).

Specify sustainable materials

Timber - "The Supplier ensures that all timber and timber products used (including solid, woodchip and woodfibres, cork, bamboo or rattan material) will be from legal and responsible sources in accordance with the Client's policy or be from reclaimed or recycled sources, where this meets relevant performance requirements. No timber is to be used if it is protected by CITES and timber must be compliant with all relevant regulations. The Supplier ensures that procedures are established to monitor and verify the procurement of all timber products and so ensure Government policies are adhered to." (This criterion may apply only if the total content of these materials in the furniture product exceeds 5% of the total product weight (excluding packaging)).

Verification: Suppliers must provide a declaration and relevant documentation e.g. from the timber supplier supported by relevant test reports.

Recycled Content - "The Contractor will be required to support the transition to a circular economy through a focus on as a high a level of recycled content within furniture to be supplied as is technically feasible. The Contractor should detail recycled content within furniture to be supplied and means of verifying this. This shall include the average recycled content of plastic parts (not including packaging) shall be at least 30% by weight (this criterion shall only apply if the total content of plastic material in the furniture product exceeds 20% of the total product weight (excluding packaging))." - see the [EU GPP for Furniture](#) for details and verification requirements.

“The percentage by weight of recycled content and/or refurbished and reused components of wood-based materials, plastics, and/or metals in the final piece of furniture should be indicated. This will be monitored post award to continue the journey towards greater circularity and sustainability in this area.”

Specify warranties:

Refurbished/remanufactured office and other products

“The tenderer must provide refurbished / remanufactured products covered by X [at least 3years] years warranty effective from the date of delivery of the product. This warranty shall cover repair or replacement and include a service agreement with options for pick-up and return or on-site repairs. The warranty shall guarantee that the goods are in conformity with the contract specifications at no additional cost.” - see the [EU GPP for Furniture](#) for details and verification requirements.

New office and other furniture

“The tenderer shall provide a minimum 3 year warranty for new furniture effective from delivery of the product (extra points may be awarded for longer warranties). This warranty shall cover repair or replacement and include a service agreement with a pick-up and return option. The warranty shall guarantee that the goods are in conformity with the contract specifications at no additional cost.” - see the [EU GPP for Furniture](#) for details and verification requirements.

Specify durability /longevity

Design for disassembly and repair

“All furniture must be designed for disassembly to facilitate repair, refurbishment, re-use, remanufacturing and ultimately recycling, either in part or as a whole. Bonding or welding of parts, where this would inhibit refurbishment and re-use, should be avoided. The tenderer shall provide clear disassembly and repair instructions (e.g. paper or electronic copy, video) to enable a non-destructive disassembly of the furniture product for the purpose of replacing component parts/materials. Instructions shall be provided in a hard copy together with the product and/or in electronic copy via the manufacturer's website. Disassembly and replacement operations should be capable of being carried out using common and basic manual tools and unskilled labour. ” - see the [EU GPP for Furniture](#) for details and verification requirements.

Spare parts

“The tenderer shall guarantee the availability of spare parts, or elements which achieve an equivalent function, for a period of at least [3, 4, 5 as applicable] years from the date of delivery of the furniture product. Contact details that should be used in order to arrange the delivery of spare parts shall be provided.” - see the [EU GPP for Furniture](#) for details and verification requirements.

Specify sustainable and circular packaging systems (see the [Packaging](#) category for detail on packaging requirements)

“Furniture packaging volume and weight must be the minimum amount to maintain the necessary levels of safety, hygiene and acceptance for the packed product and for the consumer. Packaging used must permit reuse or recovery, in accordance with specific requirements.

Noxious or hazardous substances in packaging (e.g. including but not necessarily restricted to Phthalates) must be avoided, where practical, so as to minimise harm to the environment and health.

Packaging must consist of readily recyclable material, and materials taken from renewable resources, or be a multi-use system, i.e. reusable.

All packaging materials shall be easily separable by hand into recyclable parts consisting of one material (e.g. cardboard, paper, plastic, textile).



Packaging materials: the percentage by weight of recycled content in the packaging materials (plastic and cardboard) should be indicated.

Suppliers are required to consider and where practical implement continual improvement measures that reduce the environmental impact of packaging; this may include take back arrangements, innovative packaging materials, recycled content within packaging and the avoidance of single use plastics. This will be monitored post award to continue the journey towards greater circularity and sustainability in this area.”

Specify relevant intended circular outcomes:

“The Contractor shall support the Client’s aims to transition to a Circular Economy and net zero and will keep up to date with best practice circular opportunities within the furniture sector, which seek to reduce carbon emissions, material and resource use and waste.

The Contractor will develop, maintain and implement a relevant Circular Management Plan (EMP), with specific actions capable of being monitored and reported, including but not necessarily restricted to (delete/ adjust as necessary according to subject matter of the contract):

- The use of durable and repairable furniture products for which there is availability of spare parts and which are designed to prevent early obsolescence.
- The use of low embodied carbon materials within furniture products including those with highest feasible level of recycled content, with means of verifying this.
- Supply of furniture which may be: re-used, refurbished, remanufactured, that comes from sources other than the customer, in lieu of new products. These products must meet all technical and quality requirements and be supplied with an appropriate warranty.
- Suppliers should be able to offer a repair, renovation and re-upholstery service and describe in detail how this service is delivered and charged.
- Suppliers should describe how they will manage furniture products and materials which the customer or supplier has indicated has reached the end of its life, in accordance with the waste hierarchy, including through take back arrangements including the engagement with and potential involvement of third sector and supported businesses.
- Facilitate where practical reuse within the customer or reuse externally, including in conjunction with third parties.
- Repair/ refurbish and/or remanufacture end of life furniture - that may be supplied to other customers.
- Recycling – where reuse/refurbish or remanufacture of products or materials is not possible the supplier shall offer a waste management service to uplift surplus furniture and breakdown the product into separate material contents for recycling or disposal (only where recycling is not possible) in an environmental manner regardless of manufacturer or where the furniture was purchased from - the supplier shall describe whether they charge for this service.
- In describing how such services can be provided, suppliers are required to provide details of its proposed partners/ sub-contractors. This may include SMEs, third sector and supported businesses who could directly support delivery of the service.
- Essential workforce skills and training within service delivery that support a circular economy and transition to net zero.”

Circular business models

“The Contractor shall demonstrate how relevant circular business models may provide life cycle value, including (delete as relevant):

- Hire, rental or leasing of products - that meet the circular requirements and objectives, in lieu of purchased products.
- Product service systems – where ownership of products is retained by the supplier and the functionality of furniture is supplied in accordance with the circular requirements and objectives.
- Asset management services – this may include asset tracking so that furniture assets in use may be better identified as well as their status.



- End to end project planning – including, but not necessarily restricted to, space review, asset management, supply, installation, movement, end of life management.”

Specify reused domestic/ residential furniture

Suppliers of reused domestic furniture (for example in support of the Social Welfare Fund), should have in place:

“Quality control processes and systems including how they ensure that items supplied are prepared for re-use in an appropriate manner, involving checking, cleaning or repairing items so that they can be re-used for their original purpose without further processing, or any subsequent refurbishment to enable them to be fit for re-use, including in accordance with the [Revolve](#) standards or equivalent. This shall include the collection and transportation of items, sorting of items into those that are suitable for re-use or recycling, preparing them for re-use and relevant training of staff.”

[“The Contractor will assess goods for disposal and determine if they are suitable for reuse, recycle and redistribution. The Contractor must ensure they have relationships with local furniture projects to allow reuse and redistribution within the local community of the Council’s local government area.”]

Specify end of life management

Collection and reuse of existing furniture stock

“An assessment of the condition of the furniture to be collected shall be provided by the contracting authority (CA) in the ITT which also may define a minimum re-use target to be met (e.g. 50% of provided furniture). Tenderers shall collect the furniture directly from a site specified by the contracting authority and provide a re-use and recycling service for furniture that has reached the end of its service life. The tenderer shall provide a description of how they will extend the service life of the furniture by supplying it for reuse. Furniture items/parts that are not possible to re-use shall be disassembled into different material streams, as a minimum plastics, metals, textiles and wood before being sent to different recycling facilities. Any remaining materials shall be sent to energy recovery facilities, wherever these are available at the regional level.”

OR

Minimum reuse target

“A minimum re-use target of [50%] (by weight) of the provided equipment is to be met. [90%] or greater by weight of materials and components shall be recyclable or reusable within the current infrastructure and using demonstrated technologies. The use of fastening methods (such as bonding of dissimilar materials) and coatings that would inhibit recycling or re-use must be avoided in regard to the [90%] target noted above.”

See the [EU GPP for Furniture](#) for details and verification requirements.

EVALUATION & AWARD CRITERIA:

Weightings will reflect relevant risks and opportunities as well as the reliance on technical or functional specifications. The EU GPP provides detail of points that may be awarded for, for example, extended warranties, marking of plastic parts, where the upholstery covering material is shown to comply, as appropriate, with the limits for restricted arylamine dyes, extractable heavy metals and free formaldehyde set out below – see the [EU Green Public Procurement criteria for Furniture](#), 2018 for details and verification requirements, covering low emission padding materials.

Evaluators must have the capability to evaluate tenders that include a focus on circular outcomes, including subject matter experts.



“Contractors are required to demonstrate in a Circular Management Plan:

- how they will identify, prioritise and select options to prevent life cycle waste, minimise carbon emissions and material use through optimising the useful life of furniture used, installed or removed, including through innovative solutions, in conjunction with key stakeholders;
- [where relevant] supply or use furniture that has been refurbished or remanufactured and which are fit for intended use and meet all safety, quality and performance requirements, including the provision of relevant warranties.
- How the approach proposed supports the Authority’s [Net Zero / Carbon Reduction] aims.

Responses should be SMART and capable of being monitored through contract management.”

An ideal response may provide detail that supports some or all of the following [according to the scope of the contract]:

- How they will prioritise reused, refurbished or remanufactured products that meet the technical requirements and functional need. Where refurbished or remanufactured equipment is available evidence of their suitability to meet all requirements, including details of warranties available and life cycle costs;
- How they will extend the useful life of furniture through relevant maintenance, repair and refurbishment;
- How furniture products supplied are designed for durability, ease of disassembly, reuse, repair, recyclability;
- How furniture products minimise embodied carbon through inclusion of evidenced recycled content, low carbon materials and reduced material use;
- Ability to provide (certified) embodied carbon figures for the products;
- Detail of relevant technical requirements or standards that the products or materials meet, that relate to relevant circular outcomes;
- How they will apply the waste hierarchy;
- How they will apply and manage the above throughout their relevant supply chain;
- How they will ensure that staff working on the contract have the necessary skills and training to practically implement circular approaches and support the transition to net zero; and,
- Explanation of proposed methods and metrics to monitor and report implementation of agreed circular outcomes – see Contract Management for details.

(g) CONTRACT & SUPPLIER MANAGEMENT

Contract management

Contract management requirements and KPIs will be considered when developing the specification/ ITT or may be agreed with the preferred bidder during the mobilisation period.

This is a very important stage of the procurement process and ensures that evidence whether the intended, including circular, outcomes are being delivered or not is made available. This ensures there is evidence of how the procurement has contributed to aligned objectives.

KPIs – whilst monitoring contractual delivery and compliance – can be used to drive continual improvement in all aspects, particularly with respect to circular and environmental outcomes (e.g. ongoing increase in recycled content).



Monitoring technical requirements:

Technical requirements may need to be continually monitored such as compliance with required standards.

For example, contract conditions that focus on relevant warranties, recycled content, sustainable materials may need to be monitored by the provision of appropriate evidence. For example:

“Products used must contain a minimum of [x%] recycled content – the actual % of recycled content in products/ materials delivered against that specified shall be reported.”

Monitoring intended outcomes:

The use of quantitative KPIs is dependent on the availability of a baseline against which to measure improvement. This may not always be readily available, in which case focus on qualitative improvement in circular supply.

Reporting on the end-destination of furniture

“The contractor must provide a report on the status of the equipment in the inventory once all items have been processed for re-use, recycling or disposal. The report must identify the proportion of items re-used or recycled, and whether they remained in the UK or were exported (and if so, where).”

Packaging

“The Supplier shall in the performance of the Contract provide a report to the Contracting Authority on a [quarterly] basis utilising the agreed template, setting out [the re-used proportion content of packaging used], [the proportion of otherwise redundant equipment that is re-used, refurbished or remanufactured].”

Potential contract management requirements and KPIs – it is not expected all of these will be relevant for all contracts so would need to be agreed.

Circular life cycle focus		Potential KPI, where data can be provided
Sourcing: supply of products/ materials/ equipment.	How has the Contractor: <ul style="list-style-type: none">• Reduced the supply or use of products, while ensuring delivery of furniture requirements?• Improved the embodied carbon of furniture products supplied, including evidence of highest level feasible recycled content/ appropriate use of refurbished or remanufactured products or equipment?	<ul style="list-style-type: none">• No. of products/ materials/equipment used• Quantity that incorporates circular design• Recycled content %• Material use avoided £, % or kg• Recyclable %• Reduction in CO₂ footprint of products• No. of refurbished /remanufactured products



<p>Use: use of products/ materials/ equipment</p>	<p>How has the Contractor:</p> <ul style="list-style-type: none"> • Commitment to repair as first remedy - enabled repair or refurbishment of products, materials or equipment supplied or used? • Enabled relevant reuse of products or materials? • Delivered the service in a manner to reduce emission impact? 	<ul style="list-style-type: none"> • Number of incidents resolved within a furniture product repair or upgrade or product replacement • Reuse number, % or kg • Repair/ Refurbish number, % or kg • Waste avoided % or kg • No. of furniture products with extended warranties
<p>End of Life management</p>	<p>How has the Contractor applied the waste hierarchy in the removal of furniture products or packaging, including though:</p> <ul style="list-style-type: none"> • The design of furniture products supplied or used so that they are easy to reuse or recycle? • Reuse or relevant resale of otherwise redundant products or packaging? • Recycling of furniture products or packaging? 	<ul style="list-style-type: none"> • Waste avoided £, % or kg • Reuse number, % or kg (products and packaging) • Recycled % or kg (products and packaging) • A list of furniture items sold (if relevant) together with a statement of proceeds of sale.

Continual improvement

“The Contractor is required to work with the Client to continually improve the availability and accuracy of data and information provided that demonstrates how they are meeting the Client’s objectives, and/or identifies opportunities for further improvement in environmental, circular and related social outcomes. In particular, the Contractor is required to inform of all relevant Circular Economy opportunities arising from the service and work with the Client to assess and implement those that align with value for money and cost certainty.”

MAINTENANCE & REPAIR

(a) SCOPE OF GUIDANCE






- Hard Facilities Management (FM) – property and facilities maintenance and repair - services connected to physical facilities, such as HVAC or preventive maintenance.

- Use, maintenance and repair of other equipment not within an FM service.
- For example: Lifts, gym equipment and other day to day or high-cost equipment.

These services involve the use and maintenance of materials, products and equipment to which the following circular approaches may apply, with the emphasis on preservation of existing assets, through maintenance and fixings, before disposal, and designing for future needs.

Related category(ies):
[Electronic & Electrical Equipment](#) for relevant equipment. Also see the [Packaging](#) and [Waste services](#) categories given end of life equipment.

(b) RELEVANT POTENTIAL LIFE CYCLE CIRCULAR APPROACHES:

	USE: Circular Use <div style="text-align: center;">  <p>Extend the useful life.</p> </div>	END OF LIFE: Circular Recovery <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Maximise the reusability of a product or component.</p> </div> <div style="text-align: center;">  <p>Maximise the reusability or recyclability of materials.</p> </div> </div>
<ul style="list-style-type: none"> • Design of facilities, products, equipment to facilitate reuse, repair, upgrade, refurbish, disassembly and recyclability of all components and equipment. • Design to minimise materials used in facilities/ equipment. • Include recycled content, low carbon, sustainably sourced and reduced toxicity materials. • Refurbished/ remanufactured equipment, where appropriate and with relevant warranties. • Rent equipment. 	<ul style="list-style-type: none"> • Equipment designed for non- obsolescence/ longevity and upgrade, including extended warranties. • Ease of, and requirement for, maintenance, repair and refurbishment. • Product as a service e.g. mechanical plant, lighting, other equipment. • Optimise use. 	<ul style="list-style-type: none"> • Link to sourcing - design and labelling of products/ equipment for disassembly, repair, reuse, recycling, including plastics. • Take back and reuse/ recycling of equipment/ materials/ packaging arrangements. • Potential resale of otherwise redundant equipment.



(C) THE MARKET FOR CIRCULAR MAINTENANCE & REPAIR (FM OR OTHERWISE) SERVICES

The status of circular approaches within market

The market comprises a mix of large international, UK and Scottish and SME FM providers, with, in some cases, extensive sub-contractor supply chains, and many SMEs that provide other Maintenance and Repair.



Large FM providers and many SMEs will typically have policies and plans in place to support the transition to net zero and a circular economy. The Hard FM market may be described as at a medium level of circular maturity - contracts may vary in scope so this may impact on the extent of use of materials, products or equipment.

Examples of circular approaches adopted include, but are not restricted to:

- Extend functional lifetimes through effective predictive maintenance, repair and upgrade of equipment – a focus on critical parts/failure points, supporting circular outcomes, protects building operation.
- The use of digital information to help understand the performance of a product or equipment and where it is in its lifecycle, with the focus on digital rather than hardware upgrades e.g. BIM, The Internet of Things (IoT), to support design and maintenance, and optimise real and digital upgrade – with the potential for further innovation.
- The potential application of circular business models – for example, ‘Product as a service’ - through provision of essential equipment as a service, such as lighting.



Contracting authorities may therefore focus on circular objectives within M&R contracts.



- Such FM contracts may be considered a ‘priority’ from a carbon reduction perspective – as the Supplier Selection section clarifies. Other Maintenance and Repair contracts will depend on the scope of the contract.
- Given the market maturity, specifications that support circular outcomes may include technical requirements as well as outcome or performance-based specifications. Details are provided within the specifications section.

SNAPSHOT EXAMPLE – KEY LESSONS: EARLY CONSIDERATION OF CIRCULAR APPROACHES & CLEAR CIRCULAR OUTCOMES IN SPECIFICATION

The Scottish Government secured a Hard and Soft FM contract with Mitie in 2021, with an estimated value of £400 million over 7 years, including an option to extend. This included a focus on promoting waste reduction and the circular economy, such as through re-use, repair, remanufacture of equipment, tools and materials, including the availability of parts for repair of systems and equipment, recycled content of materials, products, parts and packaging. It also includes the use of an online portal which matches assets that are no longer needed to organisations who can reuse them. Full details of the case study are available from [here](#).



Scottish Government
Riaghaltas na h-Alba
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(d) PRE-PROCUREMENT – the essential stage

As the circular procurement hierarchy describes in the Introduction to Category & Commodity Guidance, and the [‘BEFORE USING THIS GUIDANCE’](#) section this is the most important stage, before going to the market.

Making the right decisions, involving all key stakeholders, at this stage will optimise the most positive outcomes.

	✓
<ul style="list-style-type: none"> • Are your performance, quality, technical and sustainability, including circular, objectives clearly defined for the planned procurement e.g. whether existing assets can be used, repaired or refurbished internally or externally, before going to market? 	
<ul style="list-style-type: none"> • Have all relevant life cycle impacts and costs been considered? 	
<ul style="list-style-type: none"> • Is market circular capability regarding maintenance and repair and the design, use and end of life management of products or equipment understood, and do you understand how others have applied this into contracts? 	
<ul style="list-style-type: none"> • Have you considered the potential for alternatives to the norm, such as circular business models and innovative solutions such as for materials or products involved in maintenance and repair services, and the costs and benefits involved? 	

Having considered the above and a decision regarding the planned procurement has been made, the Contract Notice may be used to highlight the importance of circular approaches to the Contracting Authority:

(e) PRE-TENDER NOTIFICATION

Approach	Example
Set out the aims and objectives of the planned procurement within Contract Notice, including relevant circular outcomes.	<p>“The Contracting Authority has included obligations within the specification and contract conditions relating to the circular economy, support for the transition to net zero and related socio-economic outcomes which are relevant to the [Hard FM] [Maintenance and Repair] service to be delivered.”</p> <p>Where the procurement has been identified as a ‘relevant’ or ‘priority’ climate change contract (see Supplier Selection) you must state this in your Contract Notice.</p>



(f) SUPPLIER SELECTION

Approach	Example
Include relevant climate selection criteria into your Single Procurement Document (SPD) in question 4C7:	Where the procurement has been identified as a 'relevant' or 'priority' climate change contract (e.g. a Hard FM contract would normally be a 'priority'), you should see the Procurement Journey for the latest detail on potential suppliers providing necessary evidence of carbon reduction.
To assess the capability of potential suppliers in enabling circular economy outcomes the following could be asked:	'The contractor should demonstrate that they have delivered the minimum environmental standards required of the 'services', including the application of circular economy outcomes, in previous contracts similar in nature to that required by the contracting authority, through relevant specialist capability.' OR
	'Detail your experience in delivering a [Hard FM] [Maintenance and Repair] service that included the application of circular approaches which extended the useful life of relevant materials, products or equipment and avoided unnecessary material use and waste.'

An ideal response would demonstrate:

- Evidence of having assessed the lifetime of materials, products, equipment used within services, their maintenance and repair, reuse and refurbishment where relevant in the delivery of a contract similar in nature to the service required;
- Evidence of the management of re-use, repair, refurbishment and remanufacturing within its supply chain including sub-contractors and links to SMEs, third sector or supported businesses involved;
- Evidence of understanding the key circular economy opportunities and management requirements, including an example Management Plan.



(g) SPECIFICATION, TENDER & EVALUATION

The following are examples of potential clauses. These may need to be adjusted to suit the scope of a specific contract.

Specify relevant technical requirements:

There will be potential technical requirements that relate to the performance of specific products or equipment involved within services, such as HVAC, lighting, lifts, gym equipment – these may support circular outcomes, such as the requirement for a minimum lifetime and the availability of spare parts to aid repair.

Where relevant information is available it may be appropriate to focus on minimum requirements for recycled content within products, materials or equipment:

“The Contractor will be required to support the transition to a circular economy through a focus on as high a level of recycled content within equipment to be supplied as is technically feasible. The Contractor should detail recycled content within equipment to be supplied and means of verifying this.”

Specify relevant intended circular outcomes:

“The Contractor shall support the Client’s aims to transition to a Circular Economy and net zero and will keep up to date with best practice circular opportunities within the [FM] [Maintenance and Repair] sector, which seek to reduce carbon emissions, material and resource use and waste.

The Contractor will develop, maintain and implement a relevant Circular Management Plan (EMP), with specific actions capable of being monitored and reported, including but not necessarily restricted to:

- Application of the waste hierarchy for materials, products, equipment and packaging used or installed.
- Optimise the useful life of equipment, tools, materials and products used or installed within services provided.
- The use of durable and repairable materials, products and equipment for which there is availability of spare parts and which are designed to prevent early obsolescence.
- The use of reclaimed, refurbished or remanufactured products, equipment, materials and tools which meet relevant performance, quality and warranty requirements.
- The use of low embodied carbon materials, products and equipment including those with highest feasible level of recycled content, with means of verifying this.
- Relevant circular business models for products, materials, plant, equipment and tools used which provide life cycle value.
- Essential workforce skills and training within service delivery that support a circular economy and transition to net zero.”

Specify management of redundant products or equipment, within services provided [where relevant]:

“All redundant material, products or equipment resulting from work carried out under, or procured for the purposes of the contract, the costs of which have been paid by the Client under the Contract, or which is otherwise owned by the Client, shall be disposed of as follows:

On completion of the Contract or earlier if appropriate, the Contractor shall prepare a list of items:

- Which are considered to be serviceable or repairable, with estimated value and estimated price of repair or which are considered to be unserviceable and which cannot be economically repaired or are considered to be scrap.



-
- Within [three months] of the date of receipt of the lists, the Client shall issue disposal instructions to the Contractor. Such disposal instructions shall require that the items of material are either:
 - transferred to other subsisting contracts; or
 - subject to contract, retained by the Contractor for use in the performance of future contracts placed with the Contractor; or
 - subject to contract, repaired by the Contractor; or
 - sold by the Contractor, acting on behalf of the Client, for the best price reasonably obtainable.
 - Material designated in accordance with clause above shall be dismantled and disposed of in such a manner as to preclude the possibility of resale in its existing form.
 - The proceeds of the sale of items of material sold pursuant to the clause above shall be credited to the Client in accordance with arrangements made between the Contractor and the Client.
 - A list of the items sold by the Contractor shall be sent to the Client specified in the Contract together with a statement of the proceeds of sale.”

EVALUATION & AWARD CRITERIA:

Weightings will reflect relevant risks and opportunities as well as the reliance on technical or functional specifications.

Evaluators must have the capability to evaluate tenders that include a focus on circular outcomes, including subject matter experts.

“Contractors are required to demonstrate in a Circular Management Plan:

- identify how they will identify, prioritise and select options to prevent life cycle waste, minimise carbon emissions and material use through optimising the useful life of products, materials or equipment used, installed or removed, including through innovative solutions, in conjunction with key stakeholders;
- [where relevant] use or install products, materials or equipment that have been refurbished or remanufactured and which are fit for intended use and meet all quality and performance requirements, including the provision of relevant warranties.

Responses should be SMART and capable of being monitored through contract management.”

An ideal response may provide detail that supports some or all of the following [according to the scope of the contract]:

-
- How they will extend the useful life of products/ equipment through relevant maintenance, repair and refurbishment;
 - How products, materials, equipment used or installed are designed for durability, ease of disassembly, reuse, repair, recyclability;
 - Where refurbished or remanufactured equipment is available evidence of their suitability to meet all requirements, including details of warranties available;
 - How products, materials or equipment minimise embodied carbon through inclusion of evidenced recycled content, reduced material use;
 - Detail of relevant technical requirements or standards that the products or materials meet, that relate to relevant circular outcomes;
 - How they will apply the waste hierarchy;
 - How they will apply and manage the above throughout their relevant supply chain;
 - How they will ensure that staff working on the contract have the necessary skills and training to practically implement circular approaches and



-
- support the transition to net zero;
• Explanation of proposed methods and metrics to monitor and report implementation of agreed circular outcomes – see Contract Management for details.
-



(h) CONTRACT & SUPPLIER MANAGEMENT

Contract management

Contract management requirements and KPIs will be considered when developing the specification/ ITT or may be agreed with the preferred bidder during the mobilisation period.

This is a very important stage of the procurement process and ensures that evidence whether the intended, including circular, outcomes are being delivered or not is made available. This ensures there is evidence of how the procurement has contributed to aligned objectives.

Monitoring technical requirements:

Technical requirements may need to be continually monitored such as compliance with required standards.

For example, a contract condition such as the following would need to be monitored by the provision of appropriate evidence:

“Products used must contain a minimum of [x%] recycled content – the actual % of recycled content in products/ materials delivered against that specified shall be reported.”

Monitoring intended outcomes:

The use of quantitative KPIs is dependent on the availability of a baseline against which to measure improvement. This may not always be readily available, in which case focus on qualitative improvement in circular supply.

It may be appropriate to ask that suppliers use a Computer Aided Facilities Management (CAFM) tool to capture their performance and this can incorporate the sustainability requirements that have been included in the contract.

[where relevant] “The contractor is required to produce data on the following:

- methods of disposal of waste, showing clear evidence of using disposal methods which are environmentally preferable, in accordance with the Waste Hierarchy;
- volumes/ quantities of the reuse, off or on-site repair, refurbishment, donation, sale or recycling, of all otherwise redundant materials, products, plant, equipment, tools and packaging;
- the use of reused/ reclaimed, refurbished or remanufactured products, plant, equipment, materials and tools in Providing the Service; and
- recycled content contained within materials, products, plant, equipment and packaging used.”



Potential contract management requirements and KPIs – it is not expected all of these will be relevant for all contracts so would need to be agreed.

	Circular life cycle focus	Potential KPI, where data can be provided
Sourcing: supply of products/ materials/ equipment.	<p>How has the Contractor:</p> <ul style="list-style-type: none"> • Reduced the supply or use of products or materials, while ensuring delivery of [FM] [Maintenance and Repair] requirements? • Improved the embodied carbon of products/ materials/ equipment used or installed, including evidence of highest level feasible recycled content/ appropriate use of refurbished or remanufactured products or equipment? 	<ul style="list-style-type: none"> • No. of products/ materials/equipment used • Quantity that incorporates circular design • Recycled content % • Material use avoided £, % or kg • Recyclable % • CO₂ footprint of products/ materials • Supply/ use of refurbished /remanufactured products/materials
Use: use of products/ materials/ equipment	<p>How has the Contractor:</p> <ul style="list-style-type: none"> • Enabled repair or refurbishment of products, materials or equipment supplied or used? • Enabled relevant reuse of products or materials? 	<ul style="list-style-type: none"> • Reuse number, % or kg • Repair/ Refurbish number, % or kg • Waste avoided % or kg • Quantity of products/ materials/ equipment with extended warranties
End of Life management	<p>How has the Contractor applied the waste hierarchy in the removal of products, materials, equipment or packaging, including though improving:</p> <ul style="list-style-type: none"> • The design of products or materials supplied or used so that they are easy to reuse or recycle. • Reuse or resale of otherwise redundant products, materials, equipment or components. • Recycling of products or materials. 	<ul style="list-style-type: none"> • Waste avoided £, % or kg • Reuse number, % or kg • Recycled % or kg • A list of items sold by the Contractor together with a statement of the proceeds of sale.

Continual improvement

“The Contractor is required to work with the Client to continually improve the availability and accuracy of data and information provided that demonstrates how they are meeting the Client’s objectives, and/or identifies opportunities for further improvement in environmental, circular and related social outcomes. In particular, the Contractor is required to inform of all relevant Circular Economy opportunities arising from the service and work with the Client to assess and implement those that align with value for money and cost certainty.”

SPORTS & RECREATION

(a) SCOPE OF GUIDANCE

	<ul style="list-style-type: none"> Outdoor play areas, multi-use games areas (MUGA), sports areas and artificial surfaces. 	<ul style="list-style-type: none"> Play, leisure and sports equipment.
<p>These services and products involve the use and maintenance of materials, products and equipment to which the following circular approaches may apply, with the emphasis on avoiding waste, minimise carbon, extending useful life and enabling reuse and recycling.</p>		<p>Related category: See the Packaging category given the products and equipment involved. Also see the Maintenance and Repair category given the link to sports and recreation equipment.</p>

(b) RELEVANT POTENTIAL LIFE CYCLE CIRCULAR APPROACHES:

SOURCING: Circular Design	 Reduce total amount of materials.	 Reduce amount of virgin inputs.	USE: Circular Use	 Extend the useful life.	END OF LIFE: Circular Recovery	 Maximise the reusability of a product or component.	 Maximise the reusability or recyclability of materials.
<ul style="list-style-type: none"> Design of sports and recreation pitches and surfaces to avoid toxic chemicals and microplastics pollution*. Design of play, MUGA, sports areas to include reused materials and products where suitable. Sports & recreation products and equipment to facilitate reuse, repair, upgrade, refurbish, disassembly and recyclability. Include highest level feasible recycled content, low carbon, sustainably sourced, reduced toxicity materials within sports & recreation products, equipment, primary and secondary packaging*. Consider Type 1 ecolabeled playground equipment e.g. Nordic ecolabel, Blue Angel. Pre-owned/refurbished sports & play equipment. Leasing of sports & recreation equipment - to include maintenance and repair. 			<ul style="list-style-type: none"> Management of use of artificial pitches and surfaces to minimise microplastics pollution and waste. Manage waste in accordance with waste hierarchy. Sports & recreation equipment designed for non-obsolescence/longevity and upgrade, including extended warranties. Ease of, and requirement for, maintenance, repair and refurbishment of sports & recreation equipment (part of a service or a separate contract) 		<ul style="list-style-type: none"> Link to sourcing - design of sports & recreation products and equipment for disassembly, repair, reuse, recycling. Re-use of sports & recreation equipment and materials that reaches the end of its life within the contracting authority but may be re-used elsewhere. Traceable recovery of materials used to produce artificial turf, which can be reused or sold as raw materials for other production (such as roof panels). Take back and reuse/ recycling of sports & recreation equipment and packaging. Potential sale of otherwise redundant equipment. 		



<ul style="list-style-type: none"> • Rent/hire or a managed equipment service. • Sports & recreation equipment as a service. • Re-usable sports & recreation items. • Re-usable/ recyclable packaging. • Consideration of life cycle costs for the supply. 	<p>to extend useful life of sports & recreation equipment.</p> <ul style="list-style-type: none"> • Optimise use of products and equipment. 	<ul style="list-style-type: none"> • Otherwise recycling of products, equipment and packaging.
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Toxic and polluting materials*

The presence of toxic materials potentially prohibits, or limits, reuse and recycling. All-weather sports pitches and playground surfaces typically contain plastic or rubber granules as infill materials. These can contain harmful chemicals including polycyclic aromatic hydrocarbons (PAHs), metals, phthalates, phthalate plasticisers such as in PVC signs and shelters, as well as creating significant microplastic pollution. From August 2022 new EU restrictions prohibit the placing on the market and use of granules and mulches as infill if they contain >20 mg/kg of the sum of eight PAHs.

Synthetic rubber granules (majority is made from Styrene Butadiene Rubber (SBR), or ground up old tyres) within artificial pitches and surfaces will be gradually [lost to the environment](#) and is routinely topped up. As of April 2023, wide ranging EU REACH restrictions on synthetic infill and microplastics were [approved](#) (at the time of writing this guide they are subject to scrutiny before implementation). This has and inevitably will have an impact on the design and supply of new pitches and play surfaces. Inevitably existing pitches and surfaces will contain granules and microplastics so the life cycle management of them also needs to focus on avoiding pollution and waste. See [here](#). The environmental charity [FIDRA](#) has also developed microplastic pollution Guidelines for Designers, Procurement Specialists, Owners, Maintenance Teams and Pitch Users.

Biodegradable materials

There are many 'biodegradable' packaging and other products now available. For example, those made of polylactic acid (PLA), a bioactive thermoplastic polyester which is biodegradable, produced from renewable resources, typically corn starch or sugarcane. While these may be a potential sustainable solution, it is important to state that bioplastics should only be used where they can be effectively recycled or composted through the local waste management infrastructure. See the [Packaging](#) category for more details.

Life Cycle Costs

The range of life cycle costs for sports & recreation products and services may include costs of products, equipment, waste infrastructure, inventory and storage, labour, utilities, maintenance and repair, end-of-life costs (as well as potential revenue) for handling the waste generated.



(c) THE MARKET FOR SPORTS & RECREATION PRODUCTS AND SERVICES

The status of circular approaches within market

The market for sports and recreation pitches and surfaces, as well as that for play, leisure and sports equipment, comprises large and small manufacturers and many distributors, as well as leasing/ hire companies for play and sports equipment.



While sustainability is increasingly being addressed by manufacturers, policies to support the transition to net zero and a circular economy vary in their detail.

The market may be described as at an improving level of circular maturity; as new regulations take effect, and as a result of customer requirements. Surveys of suppliers have for example identified that they routinely are able to take back otherwise redundant equipment/ surfaces for reuse/ refurbishment or recycling.

The new EU restriction on chemicals of concern and microplastics within artificial pitches and surfaces is changing the market. While some circular approaches have been applied by suppliers in the past, the new restrictions may impact on the suitability of some of these. See opposite.

Examples of circular approaches adopted include, but are not restricted to:



- Artificial pitches and surfaces that avoid the use of infills.
- The use of alternative infills to SBR – including biodegradable polymer, organic materials such as waste from food production, cork, coconut husks.
- Design of pitches to reduce (but not prevent completely) microplastics pollution using physical barriers such as filters.
- Sustainable materials for playgrounds, sports facilities, products and equipment such as sustainably sourced timber, cork matting, reused landscaping, recycled content, reusable and recyclable products and materials.
- Extend functional lifetimes through effective maintenance, repair and refurbishment of sports & leisure equipment and facilities (these may be part of a service or a separate contract).
- The purchase of pre-owned sports & leisure equipment.
- Re-use of sports & leisure equipment through auction/ sale or donation of otherwise redundant equipment.
- Equipment may be leased, rented or hired by client or Contractor.
- The potential application of circular business models – for example, 'Product as a service' - through provision of essential sports and leisure equipment as a service.
- Reusable and recyclable packaging materials.

Contracting authorities may therefore focus on circular objectives within sports recreation products and services contracts.



Norway and Denmark have been particularly proactive in developing and supporting innovation in pitches, surfaces and play areas.

- The scope of contract requirements will determine whether sports and recreation represents a 'priority' from a carbon reduction perspective – as the Supplier Selection section clarifies.
- Given the level of market maturity, specifications that support circular outcomes may include technical requirements as well as outcome or performance-based specifications. Details are provided within the specifications section.



SNAPSHOT EXAMPLE – KEY LESSONS: LEARN FROM OTHER BUYERS AND DETERMINE MARKET CAPABILITY EARLY

OUTDOOR PLAY AND SPORTS FACILITIES FRAMEWORK

Scotland Excel's sports & recreation equipment framework is for the design, supply, installation, maintenance and inspection of outdoor play equipment and artificial surfaces. It gives councils and other members a route to source a range of works, services and supply arrangements for outdoor play equipment, surfaces, outdoor gym equipment, multi-use games areas (MUGAs), artificial surfaces and wheeled sports areas.

Collaborating with the City of Aalborg was highly influential for incorporating sustainability measures in the tender, engagement on microplastics and reviewing the method statement to develop a robust scope with relevant targets. See '[Preparing for a Circular Playground: procuring creative spaces to play and learn in City of Aalborg](#)'.

A supplier survey and extensive early market engagement was undertaken with other stakeholders (Scottish Football Association, Sportex and Play Scotland) on approaches to sustainability and opportunities to reuse equipment and recycle materials, like astroturf.

Framework requirements included a focus on:

- The use of products, equipment and materials and delivery of services that support the transition to a circular economy, including through innovative solutions, while meeting all relevant safety, performance standards and warranties – so as to extend useful life, use sustainable and low embedded carbon materials, minimise virgin material use and waste. This includes design so as to enable relevant repair, refurbishment and reuse, availability of spare parts, recyclable materials.
- The management of waste generated during framework delivery, which applies the waste hierarchy and meets all relevant regulatory requirements.
- The use of products, materials, equipment and delivery of services that prevents microplastics pollution, through the use of products and materials that avoid, as much as is possible, the use of microplastics and the management of products, materials and waste.

Technical specification also included the requirement for sustainably sourced timber, matting to be made from at least 80% recycled rubber, recycled plastic polyboard slats for outdoor seating, recycled rubber chippings manufactured to BS EN1 177, excavation of existing topsoil and store for reuse on site or removal of any spoil as required. See [here](#).



Preparing for a Circular Playground: procuring creative spaces to play and learn in City of Aalborg



(d) PRE-PROCUREMENT – the essential stage

As the circular procurement hierarchy describes in the Introduction to Category & Commodity Guidance, and the [‘BEFORE USING THIS GUIDANCE’](#) section this is the most important stage, before going to the market. Making the right decisions at this stage will optimise the most positive outcomes.

	✓
<ul style="list-style-type: none"> • Are performance, quality, technical, sustainability, including circular, objectives clearly defined for the planned procurement e.g. a Sustainable Sports & Recreation Policy, including risk-based requirements and changes to estate (home working or other)? 	
<ul style="list-style-type: none"> • Have all relevant life cycle impacts and costs been considered? 	
<ul style="list-style-type: none"> • Is market circular capability for reuse, hire, lease and circular products/ equipment capability understood and do you understand how others have applied this into sports & recreation contracts? 	
<ul style="list-style-type: none"> • Have you identified, and engaged with, key stakeholders such as the end user and budget holder, including discussing potential alternative financing or payment models? 	
<ul style="list-style-type: none"> • Have you considered the potential for alternatives to the norm, such as circular business models and innovative solutions (e.g. hire of sports & recreation equipment), and the costs and benefits involved? 	

Having considered the above and a decision regarding the planned procurement having been made, the Contract Notice may be used to highlight the importance of circular approaches to the Contracting Authority:

(e) PRE-TENDER NOTIFICATION

Approach	Example
<p>Set out the aims and objectives of the planned procurement within Contract Notice, including relevant circular outcomes.</p>	<p>If sustainability is a core requirement and forms a key element of the subject matter of the contract, highlight this through the wording of the contract title, for example: “Sustainable sports & recreation services”.</p> <p>“The Contracting Authority has included obligations within the specification and Sports & recreation services contract conditions relating to social and environmental matters, including life cycle circular economy approaches, use of sustainable sports & recreation products and equipment and practices, which are relevant to the service to be delivered.”</p> <p>Where the procurement has been identified as a ‘relevant’ or ‘priority’ climate change contract (see Supplier Selection) you must state this in your Contract Notice.</p>

(f) SUPPLIER SELECTION

Approach	Example
Include relevant climate selection criteria into your Single Procurement Document (SPD) in question 4C7, and 4D2 (Environmental Management Systems):	Where the procurement has been identified as a 'relevant' or 'priority' climate change contract (e.g. a sports & recreation installation service which involves some construction related services and the use of materials, products, vehicles, fuel and energy may be a 'priority', depending on the scope of the contract, and otherwise 'relevant'), you should see the Procurement Journey for the latest detail on potential suppliers providing necessary evidence of carbon reduction in 4C7.
To assess the capability of potential suppliers in enabling circular economy outcomes the following could be asked:	'The contractor should demonstrate that they have delivered the minimum environmental standards required of the 'services', including the application of circular economy outcomes, in previous contracts similar in nature to that required by the contracting authority, through relevant specialist capability.' OR
	'Detail your experience in delivering a sports & recreation service that included the application of circular approaches which extended the useful life of relevant products or equipment and avoided unnecessary material use and waste.'

An ideal response would demonstrate:

- [Evidence of having assessed the design of sports and recreation pitches, surfaces and areas to apply relevant circular approaches – including the use of sustainable and circular materials, application of waste hierarchy, reuse of materials, products and equipment.]
- [Evidence of circular life cycle assessment and management of sports & recreation products and equipment used within services, maintenance and repair, reuse and refurbishment where relevant in the delivery of a contract similar in nature to the service required;]
- Evidence of having used re-used, recycled, sustainably sourced, repaired or refurbished materials, products or equipment in the delivery of a contract similar in nature to the service required;
- Evidence of the management of re-use, repair and refurbishment within its supply chain including sub-contractors and links to SMEs, third sector or supported businesses involved;
- Evidence of understanding the key circular economy opportunities and management requirements, including an example Management Plan.



(g) SPECIFICATION, TENDER & EVALUATION

The following are examples of potential clauses. These may need to be adjusted to suit the scope of a specific contract.

Specify relevant minimum requirements:

There will be potential technical requirements that relate to the performance and safety of sports & recreation materials, products, equipment or packaging involved within services. These include the requirement that products must comply with the [British and European Standards EN1176 for Playground Equipment](#) and [EN1177 for Impact Absorbing Playground Surfacing](#).

Other requirements may support circular outcomes, such as:

- Independently verifiable compliance with UK Government Timber Procurement Policy, with timber from legal and sustainable sources, which can include a Forest Law Enforcement Governance and Trade (FLEGT)-licensed or equivalent source, in all installations;
- The availability of spare parts for all equipment including how long parts will continue to be available for discontinued equipment, to aid maintenance and repair;
- Sports and recreation products installed in playgrounds and sports facilities must be easy to disassemble and repair;
- The requirement for take back, for reuse, refurbishment and/or remanufacturing or otherwise recycling, redundant equipment/surfaces from the contracting authority;
- Grass matting made from recycled materials to BS EN 1177, manufactured from 80% recycled rubber, rubber chipping: 20mm recycled rubber chippings manufactured to BS EN1177 (subject to meeting new EU restrictions);
- Prohibition of PVC packaging (see [Packaging](#) category for more information).

The [Nordic Ecolabelling for Outdoor furniture, outdoor fixtures and playground equipment](#) and the [Blue Angel](#) also provide potentially useful detailed environmental criteria, which include some relating to circular outcomes.

Skills and training requirements: ensure that the relevant contractor workforce have the skills and training to deliver sports & recreation services that support the circular economy:

“The Contractor must ensure that all staff and supply chain partners involved in carrying out sports & recreation services are appropriately trained (ensuring that relevant records are available) to manage products, equipment and packaging to support the circular economy, including through transferable skills and qualifications.”

Specify relevant intended circular outcomes (Products and Equipment):

In addition to minimum requirements the following specifies required circular outcomes.

“The Contractor shall support the Client’s aims to transition to a Circular Economy and net zero and will keep up to date with best practice circular opportunities within the sports & recreation sector, which seek to reduce carbon emissions, material and resource use and waste.



The Contractor will develop, maintain and implement a relevant Circular Management Plan (EMP), with specific actions capable of being objectively monitored and reported, including but not necessarily restricted to (delete/ adjust as applicable according to the subject matter of the contract):

- Application of the waste hierarchy for sports & recreation products, equipment and packaging used which, where relevant, support local social improvement;
- Relevant equipment selected based on durability and repairability for which there is availability of spare parts;
- The use of sustainable and low embodied carbon products and equipment including those with highest feasible level of recycled content, with means of verifying this;
- The use of pre-owned sports & recreation equipment, which meet relevant performance, quality and warranty requirements;
- Optimise the useful life and re-use of products or equipment used or installed within services provided;
- Avoid where practical the use of single use plastics and toxic materials within products and packaging;
- Relevant circular business models for sports & recreation products and equipment used which provide life cycle value;
- Essential workforce skills and training within service delivery that support a circular economy and transition to net zero while enabling opportunities for local jobs and skills development that supports these objectives, with a particular focus on those further from the jobs market and the relevant involvement of MSMEs and VCSEs (e.g. young, long term unemployed [or others according to [Contracting Authority] objectives])."

Specify installation and management of sports & recreation pitches and surfaces [where relevant]:

"The Contractor will prevent as much as is possible microplastics pollution and support the circular economy through the installation, use and management of sports and recreation pitches and surfaces, including through innovative solutions, while implementing the waste hierarchy to end of life surfaces and materials."



EVALUATION & AWARD CRITERIA:

Weightings will reflect relevant risks and opportunities as well as the reliance on technical or functional specifications.

Evaluators must have the capability to evaluate tenders that include a focus on circular outcomes, including subject matter experts.

“Contractors are required to demonstrate in a Circular Management Plan:

- how they will identify, prioritise and select options to prevent life cycle waste, minimise carbon emissions and material use through the sourcing, use and end of life management of sports & recreation pitches, surfaces, products, equipment and packaging used, installed or removed, including through innovative solutions, in conjunction with key stakeholders;
- [where relevant] use relevant materials, sports & recreation equipment that has been pre-owned/ re-used and which are fit for intended use and meet all quality and performance requirements, including the provision of relevant warranties.

Responses should be SMART and capable of being monitored through contract management.”

An ideal response may provide detail that supports some or all of the following [according to the scope of the contract]:

- How pitches, surfaces, materials, products used and packaging are based on an assessment of toxicity, sustainability, use and end of life options that prevent pollution and support circular outcomes;
- Detail of relevant technical requirements or standards that sports & recreation products or equipment meet, that relate to relevant circular outcomes;
- How sports & recreation equipment installed, supplied or used is designed for durability, ease of disassembly, reuse, repair, recyclability and how it is maintained to extend useful life, including through relevant repair and refurbishment;
- Where pre-owned equipment is available evidence of their suitability to meet all requirements, including details of warranties available;
- How they will apply the waste hierarchy to management of relevant products and equipment;
- How they will apply and manage the above throughout their relevant supply chain;
- How they will ensure that staff working on the contract have necessary skills and training to implement circular and net zero approaches;
- Explanation of proposed methods and metrics to monitor and report implementation of agreed circular outcomes – see Contract Management for details.



(h) CONTRACT & SUPPLIER MANAGEMENT

Contract management

Contract management requirements and KPIs will be considered when developing the specification/ ITT or may be agreed with the preferred bidder during the mobilisation period.

This is a very important stage of the procurement process and ensures that evidence whether the intended, including circular, outcomes are being delivered or not is made available. This ensures there is evidence of how the procurement has contributed to aligned objectives.

Monitoring technical requirements:

Technical requirements may need to be continually monitored such as compliance with required standards and reporting recycled content levels.

For example, a contract condition such as the following would need to be monitored by the provision of appropriate evidence:

“Sports and recreation products installed in playgrounds and sports facilities must be easy to disassemble and repair.”

This may include, for example, verification of products supplied and product specifications confirming repairability and availability of spare parts.

Monitoring intended outcomes:

The use of quantitative KPIs is dependent on the availability of a baseline against which to measure improvement. This may not always be readily available, in which case focus on qualitative improvement in circular supply.

“The Supplier shall in the performance of the Contract provide a report to the Contracting Authority on a [quarterly] basis utilising the template (attached*) setting out the proportion of equipment and materials used in the supply/ installation of [sports and recreation pitches/ surfaces/ outdoor sports or recreation/ play products/ equipment] [playground design and installation services] that is re-used, sustainably sourced, contains recycled content and which is capable of being re-used, refurbished or remanufactured at the end of its life.”



Potential contract management requirements and KPIs – it is not expected all of these will be relevant for all contracts so would need to be agreed.

Circular life cycle focus		Potential KPI, where data can be provided
Sourcing: supply of sports & recreation services, products or equipment.	How has the Contractor: <ul style="list-style-type: none"> • Reduced the toxicity and improved the circularity of sports & recreation pitches, surfaces, areas, products or equipment supplied, installed or used in services? • Used pre-owned sports and recreation equipment, where relevant? • Adopted business models to the sourcing of required products and equipment that support circular outcomes? 	<ul style="list-style-type: none"> • % of pitches/ surfaces that avoid use of infill that contains microplastics. • Number or % hired/ rented products or equipment or as part of a managed equipment service. • % of materials, products, equipment supplied that are re-used, sustainably sourced. • % of materials, products, equipment that is capable of re-use/refurbishment/ remanufacture. • % of recycled content present.
Use: use of sports & recreation services, products or equipment	How has the Contractor: <ul style="list-style-type: none"> • Enabled repair or refurbishment of sports & recreation products or equipment supplied or used? • Enabled relevant reuse of products or equipment? 	<ul style="list-style-type: none"> • Reuse number, % or kg • Repair/ Refurbish number, % or kg • Waste avoided % or kg • No. products/equipment with extended warranty
End of Life management	How has the Contractor applied the waste hierarchy in the management of products, equipment or packaging, including though improving: <ul style="list-style-type: none"> • Reuse of sports & recreation surfaces, materials, products, equipment? • Reuse or resale of otherwise redundant sports & recreation products, equipment or components. • Recycling of products, equipment or packaging. 	<ul style="list-style-type: none"> • Reuse number, % or kg • Recycled % or kg • A list of items donated or sold by the Contractor together with [where relevant] a statement of the proceeds of sale.

Continual improvement

“The Contractor is required to work with the Client to continually improve the availability and accuracy of data and information provided that demonstrates how they are meeting the Client’s objectives, and/or identifies opportunities for further improvement in environmental, circular and related social outcomes. In particular, the Contractor is required to inform of all relevant Circular Economy opportunities arising from the service and work with the Client to assess and implement those that align with value for money and cost certainty.” This may for example include the development of innovation relating to pitches and surfacing and prevailing environmental restrictions.

WASTE SERVICES

(a) SCOPE OF GUIDANCE



- This section focuses on routes contracting authorities can take to increase material recovery and reuse through waste management activities relating to the generation of waste in delivering public sector services, including void properties.
- It also includes the provision of re-use services by local authorities and other public sector bodies as part of wider waste management, bulky waste collection and recycling services, including at Household Waste Recycling Centres.

Context

The waste hierarchy identifies the prevention of waste as the highest priority, followed by reuse, recycling, and recovery of other value (e.g. energy), with disposal as the least desirable option.

There is significant opportunity to enhance the re-use of various wastes with a particular focus on domestic goods as well as those arising from public bodies' own waste, including WEEE, furniture, white goods, textiles, building materials and others.






To support and deliver a circular economy we need to ultimately reduce waste but where waste is unavoidable, we need to ensure resources are kept in use for as long as possible by closing product and material loops retaining the highest value possible. This means adopting lifecycle thinking within the initial pre-tender and tender stages of procurement. Waste impacts and management options should be considered within tenders for all goods and services procured within the public sector. Specific waste management requirements, e.g. packaging take-back, should also be considered where relevant and proportionate to the procurement of goods and services.

Related category:

As waste (end-of-life options) is relevant to all categories, please refer to each category for specific guidance.



(b) RELEVANT POTENTIAL LIFE CYCLE CIRCULAR APPROACHES:

<p>SOURCING: Circular Design</p> <div style="display: flex; justify-content: space-around;"> <div style="background-color: #f4a460; padding: 5px; border-radius: 10px; text-align: center;">  Reduce total amount of materials. </div> <div style="background-color: #f4d03f; padding: 5px; border-radius: 10px; text-align: center;">  Reduce amount of virgin inputs. </div> </div>	<p>USE: Circular Use</p> <div style="background-color: #27ae60; padding: 5px; border-radius: 10px; text-align: center;">  Extend the useful life. </div>	<p>END OF LIFE: Circular Recovery</p> <div style="display: flex; justify-content: space-around;"> <div style="background-color: #2980b9; padding: 5px; border-radius: 10px; text-align: center;">  Maximise the reusability of a product or component. </div> <div style="background-color: #6a3d9a; padding: 5px; border-radius: 10px; text-align: center;">  Maximise the reusability or recyclability of materials. </div> </div>
<ul style="list-style-type: none"> • Consideration of reuse and take-back options (including alternative models to ownership) at initial tender stage. • Staff training to identify and select potentially recoverable / reusable items. • Potential VCSE / third party partnerships for upgrade, refurbishment, and selling of items e.g. Circular Communities Scotland and others. • Accessibility of service provision to broadest cross section of the public, to increase uptake and therefore visibility of materials. • Provision of relevant services, e.g. bulky waste collection. Consider also, provision of assisted collections, to support those that cannot move such items to the kerbside. • Consider suitable locations, e.g. space within the HWRC, for a reuse shop. 	<ul style="list-style-type: none"> • Consideration of in-use repair and maintenance services to prolong functional life. • Consideration and design of storage and collection requirements from public sector estate, including facilities (including HWRCs and bulky waste) to optimise reuse potential of assets. • Staff training to ensure that asset lifetimes are optimised through proper use, maintenance, repair and storage. • Suitable drop-off location, e.g. within an HWRC, where staff are trained and available to assess items for reuse suitability. • Suitable vehicles for collection from public sector estate, including kerbside collection vehicles, and/or method of ensuring items are protected from the elements and other damage in transit. 	<ul style="list-style-type: none"> • Consult waste managers during initial pre-tender stages to determine what reuse and waste management currently, and potentially, exist. • Establish systems, staff, or third party / VCSE relationships to support item refurbishment, retesting and sale. • Ensure optimal collection routes to minimise carbon footprint of services. • Developing (and operation) / use of reuse platforms (e.g. Scottish Materials Brokerage Service, construction material reuse, Warp-it), repair shops, reuse shops etc.

(c) THE MARKET FOR WASTE SERVICES

The status of circular approaches within market

The market comprises a mix of large (national and international) waste management service providers, smaller (e.g. specialist) SME providers (as direct providers and sub-contractors), local authority owned reuse hubs / shops, third party owned reuse shops, and community led initiatives (such as [Reuse Scotland](#))



A number of re-use organisations provide repair and refurbishment services to extend the useful life of items as part of 'preparing for re-use'.

The optimal model for the contracting authority will be determined by factors such as waste streams, services required (specialist wastes including WEEE, kerbside collection and HWRC), HWRC space, staff availability and skills, and community engagement/ demand.

Examples of approaches include:



- Specialist and/or sub-contracted collections for potentially reusable products.
- Local Authority led reuse hubs at HWRCs.
- Local Authority third party contractual relationships with VCSEs / SMEs (outsource) to collect, manage and operate either an on-site, or off-site reuse facility.
- Provision of bulky waste collection services by local authorities to encourage reuse, repair, or recycling.

Contracting authorities may therefore focus on maximising material recovery through its contractual arrangement:



- Through targets to optimise collection for reuse, repair and /or refurbishment.
- Targets with reuse hub operator to increase tonnage not landfilled.
- To measure item resale (reuse) rates.
- To measure carbon reduction impacts of reuse etc.
- Social value / community benefit generated as a result (e.g., where linked to a VCSE for delivery).

SNAPSHOT EXAMPLE – KEY LESSONS: COLLABORATION WITH THIRD SECTOR TO MAXIMISE REUSE

The [Stirling Reuse Hub](#) is part of Transition Stirling (a Stirling-based environmental charity) and has two re-use containers on-site at the Lower Polmaise Household Waste Recycling Centre, to collect potentially reusable items from households. This is done in partnership with Transition Stirling - a Stirling-based environmental charity that finds a new home for quality items that can be re-used.

The Stirling Reuse Hub project aims to provide a space to make these goods available for reuse, ranging from goods and materials that:

- are in excellent condition and just need a new home;
- just need some light repair;
- can be used for upcycling projects;
- can be remade or repurposed;
- materials for art, craft projects; and
- spare parts.



(d) PRE-PROCUREMENT – the essential stage

As the circular procurement hierarchy describes in the Introduction to Category & Commodity Guidance, and the [‘BEFORE USING THIS GUIDANCE’](#) section this is the most important stage, before going to the market.

Making the right decisions, involving all key stakeholders, at this stage will optimise the most positive outcomes.



• Are the objectives clearly defined for the planned waste services procurement and do they consider reuse options?	
• Have you explored potential market solutions, e.g., partnerships with third sector organisations?	
• Have you determined feasibility of an on-site solution (space constraints, operating hours etc.)?	
• Do you have the staff / can staff be trained, to identify suitable goods, or operate a reuse hub?	

(e) PRE-TENDER NOTIFICATION

Approach	Example
Set out the aims and objectives of the planned procurement within Contract Notice, including relevant circular outcomes.	<p>The Authority may wish to use a Prior Information Notice (PIN) to engage with the market ahead of determining its route to market, to identify potential service provision routes and suppliers. For example, to determine whether an Authority managed service is feasible, or third-party managed, and whether the service will be on-site, or off-site.</p> <p>“The Contracting Authority is seeking solutions to support it in its aim to identify and divert reusable waste from its [define service, e.g. HWRC].”</p> <p>“The Contracting Authority is seeking partners to promote the repair and resale of items identified for reuse as part of its [define collection / waste management service].”</p> <p>Where the procurement has been identified as a ‘relevant’ or ‘priority’ climate change contract (see Supplier Selection), you must state this in your Contract Notice.</p> <p>It is also good practice to notify suppliers early in the process of particular conditions of the contract and as such this should also be included in the Contract Notice rather than just in the specification.</p>



(f) SUPPLIER SELECTION

Approach	Example
Include relevant climate selection criteria into your Single Procurement Document (SPD) in question 4C7 (and 4D2 where relevant):	Where the procurement has been identified as a 'relevant' or 'priority' climate change contract (e.g. a waste management services contract would normally be a 'priority'), you should see the Procurement Journey for the latest detail on potential suppliers providing necessary evidence of carbon reduction plans. You should ensure that any minimum standards are proportionate to the contract and are not overly onerous.
To assess the capability of potential suppliers the following could be asked:	<p>Select and adjust the following as relevant according to the scope of a contract:</p> <p>"The contractor should demonstrate that they have delivered the minimum environmental standards required of the 'services', including the application of re-use of suitable items and circular economy outcomes, in previous contracts similar in nature to that required by the contracting authority, through relevant specialist capability."</p> <p>OR</p> <p>"The contractor should demonstrate its experience and ability to engage with local communities to market and deliver its services, with respect to resale of used goods."</p>

"The contractor should demonstrate that they have delivered repair and resale services for the core products listed, to the standards required (e.g. to the ZWS [Revolve Standard](#)), to ensure items are fit for resale / reuse."

OR

"The contractor should demonstrate its experience of providing community engagement functions, such as repair shops."

OR

"The contractor should demonstrate its capability to identify and segregate reusable items."

OR

"The contractor should detail its experience in working with partners to select, upgrade, sell, or donate items recovered from the HWRC."

For void clearance services:

"XYZ public body is committed to the waste hierarchy and the application of circular economy outcomes where relevant and proportionate while enabling SMEs, third sector and supported businesses to compete for contracts [include other environmental and socio-economic outcomes as appropriate]. Bidders are therefore required to demonstrate in a method statement how they will:

- Identify, prepare for re-use and arrange the re-use of suitable wastes arising so that they are safe for use and meet quality and performance requirements;
- Include where relevant collaboration with businesses or third sector organisations who have particular expertise in re-use.



This should include the key internal and external stakeholders involved and how you would seek to ensure cost effective and practical circular economy outcomes are delivered together with suggested wastes suitable for re-use and performance measures which are capable of monitoring and reporting through contract management.”

An ideal response would demonstrate:

- Evidence of relevant environmental certification and relevant waste carrier’s licence.
- Evidence of Revolve certification which covers the profile of XYZ public body’s requirement, where relevant.
- Evidence of having successfully managed or operated a reuse shop, hub, and/or repair service.
- Evidence that the contractor has the skills and experience necessary to carry out specific repair / refurbishment works to ensure goods are fit for resale, including testing, as appropriate.
- Evidence that the contractor has relationships with relevant organisations to support the delivery of the service.

For void clearances an ideal response would demonstrate:

- A clear understanding of wastes that are suitable for re-use;
- A process for preparing waste for re-use that is legally compliant and ensures that safety and quality requirements are met;
- Suggested KPIs to include: % of waste-streams that are re-used, with detail of re-use destination/organisations used.

Bidders that operate to the Revolve or equivalent re-use quality standard would be expected to be able to provide appropriate evidence that they have systems and processes in place to prepare for re-use and meet safety and quality requirements, but the tender must seek evidence of how they will meet requirements in the delivery of the contract.

(g) SPECIFICATION, TENDER & EVALUATION

The following are examples of potential clauses. These may need to be adjusted to suit the scope of a specific contract.

Specify relevant minimum requirements:

The Authority would need to determine, based on its prior market engagement, exactly what services it will seek and on what sites / locations – with a view to optimising collection rounds. As a result, the Authority could seek to mandate / set out:

- The waste hierarchy to be used for all recovered items (e.g., what happens to items that are not sold);
 - Responsibilities and duties with respect to the operation and management of the collection, reuse and/or waste management service;
 - Expected product types and/or waste streams to be managed;
 - Responsibilities and duties with respect to the collection and resale of items from the HWRC by the contractor, for off-site resale;
 - Expected volumes;
 - Diversion from landfill target;
 - Standards that items for resale must meet (e.g. ZWS Revolve, or equivalent).
-



- Vehicle suitability to ensure items are protected in transit (including fuel efficiency and fuel type); and
- Responsibilities with respect to marketing and communications of the services (where relevant).

Specify: ICT reuse & WEEE

“Re-use of Electrical and Electronic Equipment (EEE) should be subject to the EN 50614:2020 Preparing for Re-use standard [or equivalent] to:

- improve the standards for the re-use and refurbishment of electrical and electronic equipment that has reached the end of its first useful life in the UK; and
- address the demand from consumers for assurance that the used electrical products they buy are electrically safe to use and functionally fit for purpose.

Contractors may be required to: ‘Process WEEE in accordance with the EN 50614:2020 process management specification.’”

Specify: Construction waste (see [Procuring for Resource Efficient Construction Projects](#) for more detail)

“The tenderer must provide an overview of the materials and products to be separated based on the substance inventory in accordance with [site waste management plan / demolition audit etc].

The tenderer must also indicate how these will be processed and/or offered for reuse by means of a separation plan and a substance declaration in accordance with [site waste management plan / demolition audit etc].

As a minimum this includes the following fractions [specify]....”

Specify: Quality of services

“The Contractor should ensure that items supplied and any related services including those provided by sub-contractors meet relevant quality and safety standards and regulations so as to ensure that they are fit for purpose and safe for use when sold by the Contractor. Where items are supplied which are defective the Contractor will make arrangements to repair or refurbish the items to a suitable standard for re-use. The Contractor shall ensure that appropriate Health and Safety policies and arrangements are in place to protect the workforce, end users of items and others who may be affected by the storage, delivery and installation of items. The Contractor must ensure that items are prepared for re-use in an appropriate manner, involving checking, cleaning or repairing items so that they can be re-used for their original purpose without further processing. This shall include the collection and transportation of items, sorting of items into those that are suitable for re-use or recycling, preparing them for re-use and training of staff.”

Specify relevant intended circular outcomes:

“The Authority is committed to the waste hierarchy and the application of circular economy outcomes where relevant and proportionate while enabling SMEs, third sector and supported businesses to compete for contracts [include other environmental and socio-economic outcomes as appropriate]. Bidders are therefore required to demonstrate in a method statement how they will:

- Work with the HWRC management its operatives and users to maximise the separation of wastes that are suitable for re-use including through effective communication and engagement;
- Collect, sort, store, prepare for re-use and arrange the re-use of suitable wastes arising from the HWRC so that they are safe for use and meet quality and performance requirements;



-
- Manage the reuse shop operation – including marketing, staffing and all duties associated with compliant retail premises operation.
 - Include where relevant collaboration with businesses or third sector organisations who have particular expertise in re-use categories. This should include the key internal and external stakeholders involved and how you would seek to ensure cost effective and practical circular economy outcomes are delivered together with suggested wastes suitable for re-use and performance measures which are capable of monitoring and reporting through contract management.”

AND/OR

“The contractor must detail its approach to dialogue with the Authority and management of the services, to ensure:

- Waste collected (by type) is recorded.
 - Waste end management is recorded (reuse, sale, etc.).
 - Landfill diversion is recorded.
 - Opportunities for service improvements (e.g. staff training to identify reusable items) are recognised and implemented.
 - Marketing / promotions / community engagement is carried out.”
-

EVALUATION & AWARD CRITERIA:

Weightings will reflect relevant risks and opportunities as well as the reliance on technical or functional specifications.

Evaluators must have the capability to evaluate tenders that include a focus on circular outcomes, including subject matter experts.

For example:

“The Authority is committed to the waste hierarchy and the application of circular economy outcomes where relevant and proportionate while enabling SMEs, third sector and supported businesses to compete for contracts [include other environmental and socio-economic outcomes as appropriate]. Bidders are therefore required to demonstrate in a method statement how they will:

- Identify, prepare for re-use and arrange the re-use of suitable wastes arising so that they are safe for use and meet quality and performance requirements;
 - Include opportunities for third sector organisations who have particular expertise in re-use including through sub-contracting arrangements.
 - This should include the key internal and external stakeholders involved and how you would seek to ensure cost effective and practical circular economy outcomes are delivered together with suggested wastes suitable for re-use and performance measures which are capable of monitoring and reporting through contract management.”
-

An ideal response may provide detail that supports some or all of the following [according to the scope of the contract]:

- A clear understanding of wastes that are suitable for re-use;
 - A process for preparing waste for re-use that is legally compliant and ensures that safety and quality requirements are met;
 - A process for working with the HWRC to promote and enable re-use of suitable wastes;
 - A methodology for managing unsold items, e.g. use of WARP-IT, or community donations;
 - Effective model for authority communication and engagement;
-



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- Effective model for community engagement;
 - A process for service improvement monitoring;
 - Bidders that operate to the Revolve or equivalent re-use quality standard would be expected to be able to provide appropriate evidence that they have systems and processes in place to prepare for re-use and meet safety and quality requirements, but the tender must seek evidence of how they will meet requirements in the delivery of the contract.
-



(h) CONTRACT & SUPPLIER MANAGEMENT

Contract management

Contract management requirements and KPIs will be considered when developing the specification/ ITT or may be agreed with the preferred bidder during the mobilisation period.

This is a very important stage of the procurement process and ensures that evidence whether the intended, including circular, outcomes are being delivered or not is made available. This ensures there is evidence of how the procurement has contributed to aligned objectives.

KPIs – whilst monitoring contractual delivery and compliance – can be used to drive continual improvement in all aspects, particularly with respect to circular and environmental outcomes (e.g. ongoing increase in recovered materials).

With a waste services contract the following reporting requirements may have been specified:

“The Supplier shall in the performance of the Contract provide a report to the Contracting Authority on a [quarterly] basis utilising the template (attached*) setting out the nature and quantities of wastes that have been identified for re-use and prepared for re-use, including destination/organisation utilized.”

OR

“The Supplier shall in the performance of the Contract provide a report to the Contracting Authority on a [quarterly] basis utilising the template (attached*) setting out the nature and quantities of wastes that have been identified for re-use and prepared for re-use, including destination/organisation utilised together with details of other waste not suitable for re-use.”

OR

“The Supplier shall in the performance of the Contract provide a report to the Contracting Authority on a [quarterly] basis utilising the template (attached*) setting out the nature and quantities of wastes that have been collected from HWRCs, that which is identified for re-use and prepared for re-use and other waste not suitable for re-use including its final destination.”

(*In this example the template will be drawn up by the buyer and shared with the potential suppliers as part of the procurement process.)



Potential contract management requirements and KPIs – it is not expected all of these will be relevant for all contracts so would need to be agreed.



	Circular life cycle focus	Potential KPI, <u>where data can be provided</u>
Recovery / Reuse: collection and reuse of items.	How has the Contractor: <ul style="list-style-type: none"> Increased the recovery of potentially reusable items from the buyer / HWRC or other relevant source. 	<ul style="list-style-type: none"> No. of items collected (by product type) Level of reuse after preparation % Stock levels at end of reporting month (by product type) Sold stock in reporting month (by type and value) No. of items (by product type): <ul style="list-style-type: none"> Reusable (repair not required) Repairable Resold
Waste: management of items not reused / sold.	How has the Contractor: <ul style="list-style-type: none"> Managed disposal of items deemed not reusable, or not resold. 	<ul style="list-style-type: none"> No. of items disposed of / No. of items collected (and percentage). Disposal route used.
Engagement: community and partner engagement.	How has the Contractor: <ul style="list-style-type: none"> Increased community awareness of the reuse initiative? Increased reuse shop footfall. 	<ul style="list-style-type: none"> Reuse shop footfall. Direct donations to the reuse shop / collection site at HWRC.

Continual improvement

“The Contractor is required to work with the Client to continually improve the availability and accuracy of data and information provided that demonstrates how they are meeting the Client’s objectives, and/or identifies opportunities for further improvement in environmental, circular and related social outcomes. In particular, the Contractor is required to inform of all relevant Circular Economy opportunities arising from the service and work with the Client to assess and implement those that align with value for money and cost certainty.”

WORKWEAR AND PERSONAL PROTECTIVE EQUIPMENT (PPE)

(a) SCOPE OF GUIDANCE

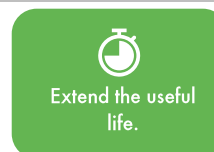
	<p>Workwear and PPE covers a range of products and services including, but not limited to:</p> <ul style="list-style-type: none"> • Uniforms. • Corporate clothing (corporatewear) including branded and unbranded tunics, polo shirts, trousers, fleece tops etc. • Personal protective equipment (PPE) covers protective clothing, helmets, goggles, or other garments or equipment designed to protect the wearer's body from injury or infection. PPE includes a range of items from safety shoes, face masks, HiViz jackets and safety gloves etc. 	<p>Also potentially relevant to:</p> <ul style="list-style-type: none"> • Linen and bedding; • Textiles FM service (including textile laundry or uniform services); • Mattresses; • Other soft furnishings; and, • Carpets and floor coverings. <p>Materials include textiles (natural and synthetic fibres), plastic polymers, rubber, and, potentially, animal products such as leather.</p>
<p>The environmental impacts of producing, using and disposing of textiles are substantial, including energy, material, water, and waste impacts. Polyester and cotton textiles are the most commonly used fabrics in workwear. However, many workwear and PPE either contain protective coating and/or barrier layers designed to improve longevity and personal protection, including biocides and fire retardancy. These coatings and additives may hinder both reuse and recycling where the chemicals and formulations used are not fully documented. Construction, waste management, healthcare and pharmaceutical workers are among those using PPE on regular basis.</p>	<p>Related categories: Furniture, Maintenance & Repair, Waste Services and, Packaging.</p> 	

(b) RELEVANT POTENTIAL LIFE CYCLE CIRCULAR APPROACHES:

SOURCING: Circular Design



USE: Circular Use






END OF LIFE: Circular Recovery



<ul style="list-style-type: none"> • Avoid coatings and additives to workwear where possible. • The implications of microplastics from laundering synthetic fibres are becoming more widely recognised alongside production impacts. • Where possible, include recycled content, low carbon, sustainably sourced and reduced toxicity materials. • Consider options to rent or lease corporate clothing and PPE, e.g. as a managed service. • Consider Type 1 ecolabel criteria for design, production, use and recycling, e.g. EU ecolabel (Clothing and textiles / Textile products), Blue Angel (Textiles), Nordic Swan, Oeko-Tex Standard 100. • Cradle to cradle circular design; consider low-impact material choices in design. • Design for easy repair and reuse, e.g. avoid embroidered logos and labels. • Consideration of whole life costs associated with the supply as carbon impact of laundry services is a significant part of overall carbon footprint. 	<ul style="list-style-type: none"> • Ease of washing and repair e.g. through managed service (e.g. FM) contracts. • Clear and accessible care and laundry instructions for users and /or service providers • Maintain asset register and ensure items are returned for proper disposal. 	<ul style="list-style-type: none"> • Take back and reuse of workwear PPE and packaging arrangements. • Potential resale of otherwise redundant workwear or donation through reuse exchange platforms, approved reuse/recyclers, and/or donation to third sector organisations. • Take back/ disposal through accredited recyclers as a last resort.
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(c) THE MARKET FOR WORKWEAR AND PPE

The status of circular approaches within market

<p>UK workwear manufacturing market in 2023 is around £253M per year.</p> <p>Workwear only accounts for small percentage of Scotland’s overall textile and clothing manufacturing</p> 	<p>Examples of circular approaches adopted include, but are not restricted to:</p> <ul style="list-style-type: none"> • Specifying minimum quantities of reused items in large contracts – significant scope exists for reusing or specifying reused items. 	<p>Contracting authorities may therefore focus on circular objectives within workwear, textile and PPE contracts.</p> <ul style="list-style-type: none"> • Textiles have a high carbon footprint over their lifetime, so depending on the size and scope of a contract, these contracts may be a ‘priority’ from a carbon reduction perspective – as the Supplier Selection section clarifies. 
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<p>but the public sector has significant influence.</p> <p>Scottish suppliers are mainly small to medium size, complementing a number of large UK-wide and international manufacturers and suppliers.</p> <p>The reuse and recycling sector includes both commercial and third sector organisations.</p>	<ul style="list-style-type: none"> • Extend functional lifetimes through supporting maintenance, repair contracts – or combined product as a service contract. • Take-back arrangements to extend use beyond first-life, e.g. de-labelled workwear items – these may include separate collection arrangements through a third party and/or with a third sector organisation. • Third-party collection / take-back to assess the potential for reuse, refurbishment and/or remanufacturing. 	<ul style="list-style-type: none"> • Contract requirements should recognise the materials’ impacts from production and operational energy use (energy efficiency requirements) from laundry, so aim for optimal utilisation. • Specifications that support circular outcomes may include technical requirements such as use of recycled fibres, regulation of coatings, flame retardants and softening agents (phthalates etc), availability of repair services and repair manuals. Details are provided within the specifications section. • In service contracts, there is considerable scope for the involvement of third sector and supported businesses and relevant employment, skills and training.
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Life Cycle Costs

The range of life cycle costs for clothing, textiles and PPE may include costs of products, equipment, waste infrastructure, inventory and storage, labour, utilities, maintenance, end-of-life costs (as well as potential revenue) for handling the waste generated. The nature, cost of, and impacts from cleaning /laundry are particularly important in terms of overall lifecycle costs and impacts for longer life items.



SNAPSHOT EXAMPLE – KEY LESSONS: ENGAGEMENT WITH MARKET TO ENCOURAGE AND ENABLE CIRCULAR OUTCOMES

The Scottish Parliament Corporate Workwear

The Scottish Parliament Corporate Body (SPCB) approached the end of their corporate clothing contract and were very keen to improve sustainability in this area to ideally eliminate any of their end-of-life clothing going to landfill. Market engagement focussed on opportunities around how suppliers design clothing from the start so that it is durable, repairable and can be recycled at end of life.



The Scottish Parliament
Pàrlamaid na h-Alba

Solutions identified included moving away from tax tabbing (small, typically woven, labels sewn into corporate clothing and workwear) to using pin badges and magnetic logo names enabling all Parliament clothing to be either reused or recycled at end of life rather than shredded/incinerated. The service will also shift towards suits which contain between 15-50 recycled plastic bottles per suit and that Security, FM and Events teams will wear fleeces made using 100% PET recycled plastic bottles and polo shirts made from 100% pre-shrunk ringspun organic cotton for the Parliament Security and Visitor Services teams.

The Suppliers' supply chain is audited through SEDEX on an annual basis and the supplier has created a Net Zero Carbon plan off the back of the contract.

Further details are available from [here](#).



(d) PRE-PROCUREMENT – the essential stage

As the circular procurement hierarchy describes in the Introduction to Category & Commodity Guidance, and the [‘BEFORE USING THIS GUIDANCE’](#) section this is the most important stage, before going to the market. Making the right decisions at this stage will optimise most positive outcomes.

	✓
• Are performance, quality, technical and sustainability (including circular) objectives clearly defined for the planned procurement?	
• Have you identified, and engaged with, key stakeholders such as end user, facilities & estates managers and budget holder, including discussing potential alternatives for meeting the functional need?	
• Can existing workwear/PPE/Textile items be redeployed/refurbished/upgraded to meet functional need before going to market?	
• Is market circular capability understood and do you understand how others have applied this into cleaning contracts?	
• Have relevant life cycle impacts and costs been considered, e.g. supply, cleaning / laundry, deployment, end of life disposal etc when evaluating options?	
• Have you considered the potential for alternatives to the norm, such as circular business models and innovative solutions, and the costs and benefits involved, for example, leasing, renting, workwear, PPE and textile products-as-a-service?	

Having considered the above and a decision regarding the planned procurement has been made, the Contract Notice may be used to highlight the importance of circular approaches to the Contracting Authority:

(e) PRE-TENDER NOTIFICATION

Approach	Example
Set out aims of the planned procurement within Contract Notice, including relevant circular outcomes.	<p>“The Contracting Authority has included obligations within the specification and contract conditions relating to support for the circular economy, transition to net zero and related socio-economic outcomes. This includes, among others, relevant durability, repairability, re-use and remanufacturing of textile products. The Contracting Authority also intends to use Life Cycle Costing in the Commercial evaluation.”</p> <p>Where the procurement has been identified as a ‘relevant’ or ‘priority’ climate change contract (see Supplier Selection) you must state this in your Contract Notice. It is also good practice to notify suppliers of particular conditions of the contract in the Contract Notice. For example: ‘A requirement of this contract is that all products supplied must meet the criteria set out in {Type 1 ecolabel} or equivalent.’</p>



(f) SUPPLIER SELECTION

<p>Approach</p> <p>Include relevant climate selection criteria into your Single Procurement Document (SPD) in question 4C7 (and 4D2 where relevant):</p>	<p>Example (You should ensure that any minimum standards are proportionate and not overly onerous)</p> <p>Where the procurement has been identified as a 'relevant' or 'priority' climate change contract (e.g. as part of a large scale FM contract, it may be a 'priority' contract depending on value), you should see the Procurement Journey for the latest detail on potential suppliers providing necessary evidence of carbon reduction, for example a Climate Change Plan.</p>
<p>To assess the capability of potential suppliers in enabling circular economy outcomes the following could be asked:</p>	<p>"The contractor should demonstrate that they have delivered the minimum environmental standards required of the [workwear and/or PPE] products or services', including the application of circular economy outcomes, in previous contracts similar in nature to that required by the contracting authority, through relevant specialist capability."</p> <p>OR</p> <p>"Detail your experience in delivering {relevant workwear / PPE / textile items} as [products] OR [as alternative to ownership that enable lower overall life cycle impacts and costs, for example (but not limited to) 'workwear / PPE / textile products as a service'] that included the application of circular approaches which extended the useful life of the items, and/or enabled repair and/or reuse, beyond current use, and avoided unnecessary material use and waste."</p>
<p>Where textile fibres and chemical contact are a particular issue of concern:</p>	<p>"Tenderers must be able to demonstrate the resources, expertise, documented procedures and management systems they have in place to address the following aspects of the product and its supply chain:</p> <ul style="list-style-type: none"> • Textile fibre origin: systems that allow for the traceability of the source, content and production systems of natural and man-made fibres for the environmental criteria applied. • Chemical management: the implementation of a restricted chemical substance list, including communication of the list to dyeing, printing and finishing sites, monitoring of the compliance of production sites (as relevant) and monitoring of the compliance of final products (as relevant), including laboratory testing."
<p>An ideal response would demonstrate (according to subject matter of contract):</p> <ul style="list-style-type: none"> • Evidence of having assessed the lifetime of textile materials, workwear and PPE products and/or services, including cleaning and repair, reuse and refurbishment where relevant in the delivery of a contract similar in nature to the requirement; • Evidence of having managed re-use/repair/recycling within supply chain including sub-contractor SMEs/ third sector/ supported businesses; • Evidence of having supplied workwear / PPE as a service which delivered life cycle environmental and monetary value; and, • Evidence of the systems and capabilities that suppliers have in place to monitor and verify textile fibre origin and chemical management, and the systems of documentation, auditing and analysis used to monitor compliance of suppliers and the final product. 	



(g) SPECIFICATION, TENDER & EVALUATION

The following are examples of potential clauses. These may need to be adjusted to suit the scope of a specific contract.

Specify technical requirements:

Recovery and re-use of workwear clothing and associated items can be challenging. There are several barriers associated with the re-use and recycling of corporate clothing, ranging from corporate risk, material composition and 'uniformity' reducing aesthetic appeal and limiting re-use options. Although small in volume, there is an established infrastructure for corporate clothing collection, with niche re-use markets. Current data is limited but in 2015 only 9% of total workwear clothing across the UK was recovered for re-use. This highlights a role for improved design and procurement specifications, to improve options at end-of-life and allow for higher value end applications.

Appropriate consideration or product specification requirements at the procurement stage can ensure that textile product purchases are more durable and have a longer first and second life. Considerations may include use of organic natural fibres, design for re-use, including easy-care, and specifying for durability/longevity and easily repairable textile products. Examples include purchase of uniforms with detachable logos which can be repaired or replaced with new ones at the end of first life.

The key areas covered by technical sustainability criteria include, but are not limited to, fibre sourcing; chemical restrictions; durability and lifespan extension; energy conservation during use; and design for reuse and recycling.

A comprehensive list of requirements (including verification) are included within, for example, the [EU Green Public Procurement Criteria for Textiles \(2017\)](#) which includes meeting criteria within [EU Ecolabel for Institutional Laundry Detergents](#), the [EU Ecolabel for Clothing & Textiles](#), and the [UK Government Buying Standard for Textiles \(2012\)](#).

This guidance does not repeat all of the specifications within these standards but signposts where relevant and highlights key technical and outcome requirements (users should be aware that these standards may be updated over time).

Specific technical requirements may include:

Specify: Warranties

"The tenderer shall provide a minimum [XX] year (this will be product specific) warranty for new textile products effective from delivery of the product. Refurbished and remanufactured products should be supplied with the same warranty and meet [Scottish Revolve] standards for re-use as a minimum. This warranty shall cover repair or replacement and include a service agreement with a pick-up and return option. The warranty shall guarantee that the goods are in conformity with the contract specifications at no additional cost."

Specify: Recycled content

"Polyester fibre product(s) to be used in fulfilment of the contract must be manufactured using a minimum recycled content of 20%."



Note: Technical issues may be encountered in meeting other quality specifications required in a contract. This should be taken into account when evaluating tenders and could also be addressed through market enquiries or during competitive dialogue (if used). See the [EU GPP for Textiles](#) for details and verification requirements.

Specify: durability /longevity

“Bidders should provide details of testing and performance standards for textile products, including details of testing and performance criteria relate to longevity and extension of the product lifecycle. Shrinkage; Resistance to fading from washing; Colourfastness to perspiration; Colourfastness to wet rubbing; Colourfastness to dry rubbing; Resistance to fading from light; Commercial laundering and dry cleaning; rubbing (wet and dry); Chlorinated and sea water; Hydrophobicity (drop test); and Phenolic yellowing; and testing for print durability.”

“The textile products must meet the relevant durability requirements identified in [define testing requirements].”

In the case of functional workwear that can demonstrate inherent performance characteristics that negate the need for water, dirt or stain repellents and/or flame-retardant treatments to be applied to the textile fabric, the product will be exempted from testing requirements [as defined]. See the [EU GPP for Textiles](#) for details of requirements and verification requirements.

“The successful tenderer must make spares available of all parts and accessories (e.g. zips, buttons, fasteners) that form part of the products to be supplied for a minimum of [two] years after product delivery or the duration of the supply contract (whichever is the longest). An indicative price list for these parts and accessories must also be provided.”

“The textile care labelling must promote washing at lower temperatures, if possible at 30°C or less and using the washing machine’s low energy programme, unless there is a technical reason otherwise (e.g. hygiene, safety, soiling).”

Specify: End of life management

“Uniforms should not include logos or names that are difficult to remove, but should use removable badges (unless permanent identification for security or otherwise is required, when these should be as discreet as possible).”

“Bidders are encouraged to demonstrate how the textiles product or service will be delivered in accordance with the waste hierarchy. This can include:

- Product labelling or take back schemes to encourage sustainable actions at the end-of-life stage;
- Avoidance of uniforms which include logos or names that are difficult to remove, or use of removable badges (unless permanent identification for security or tax reasons is required, when these should be as discreet as possible);
- Textiles management scheme to facilitate re-use or repair; and,
- Product take-back schemes or partnerships with third parties who can re-use or recycle high proportions of the used textiles.”

Specify: sustainable and circular packaging systems (see the [Packaging](#) category for detail on packaging requirements)

“Packaging volume and weight must be the minimum amount to maintain the necessary levels of safety, hygiene and acceptance for the packed product and for the consumer. Packaging used must permit reuse or recovery, in accordance with specific requirements.

Noxious or hazardous substances in packaging (e.g. including but not necessarily restricted to Phthalates) must be avoided, where practical, so as to minimise harm to the environment and health.



Packaging must consist of readily recyclable material, and materials taken from renewable resources, or be a multi-use system, i.e. reusable.

All packaging materials shall be easily separable by hand into recyclable parts consisting of one material (e.g. cardboard, paper, plastic, textile).

Packaging materials: the percentage by weight of recycled content in the packaging materials (plastic and cardboard) should be indicated.

Suppliers are required to consider and where practical implement continual improvement measures that reduce the environmental impact of packaging; this may include take back arrangements, innovative packaging materials, recycled content within packaging and the avoidance of single use plastics. This will be monitored post award to continue the journey towards greater circularity and sustainability in this area.”

Specify relevant intended circular outcomes:

Specify textiles or textiles FM service

“The Contractor shall support the Client’s aims to transition to a Circular Economy and net zero and will keep up to date with best practice circular opportunities within the textiles sector, which seek to reduce carbon emissions, material and resource use and waste.

The Contractor will develop, maintain and implement a relevant [Circular Management Plan], with specific actions capable of being monitored and reported, including but not necessarily restricted to (delete/ adjust as necessary according to subject matter of the contract):

- The use of durable and repairable workwear textile and PPE products for which there is availability of spare parts and which are designed to prevent early obsolescence.
- The use of low embodied carbon materials within textile products including those with highest feasible level of recycled content, with means of verifying this.
- Supply of workwear and PPE which may be: re-used, refurbished, remanufactured, that comes from sources other than the customer, in lieu of new products. These products must meet all technical and quality requirements and be supplied with an appropriate warranty.
- Suppliers should be able to offer a repair, renovation and remanufacturing service and describe in detail how this service is delivered and charged.
- Suppliers should describe how they will manage textile and PPE products and materials which the customer or supplier has indicated has reached the end of its life, in accordance with the waste hierarchy, including through take back arrangements including the engagement with and potential involvement of third sector and supported businesses.
- Facilitate where practical reuse within the customer or reuse externally, including in conjunction with third parties.
- Repair/ refurbish and/or remanufacture end of life products - that may be supplied to other customers.
- Recycling – where reuse/refurbish or remanufacture of products or materials is not possible the supplier shall offer a waste management service to uplift surplus products and breakdown the product into separate material contents for recycling or disposal (only where recycling is not possible) in an environmental manner regardless of manufacturer or where the textile items were purchased from - the supplier shall describe whether they charge for this service.
- In describing how such services can be provided, suppliers are required to provide details of its proposed partners/ sub-contractors. This may include SMEs, third sector and supported businesses who could directly support delivery of the service.
- Essential workforce skills and training within service delivery that support a circular economy and transition to net zero.”

Specify circular business models

“The Contractor shall demonstrate how relevant circular business models for workwear/PPE may provide life cycle value, including (delete as relevant):

- Hire, rental or leasing of products - that meet the circular requirements and objectives, in lieu of purchased products.



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- Product service systems – where ownership of products is retained by the supplier and the functionality of workwear / PPE is supplied in accordance with the circular requirements and objectives.
 - Asset management services – this may include asset tracking so that the assets in use may be better identified as well as their status.
 - End to end project planning – including, but not necessarily restricted to, space review, asset management, supply, installation, movement, end of life management.”
-

EVALUATION & AWARD CRITERIA:

Weightings will reflect relevant risks and opportunities as well as the reliance on technical or functional specifications. The EU GPP provides detail of points that may be awarded for, for example, extended warranties, marking of plastic parts, where the upholstery covering material is shown to comply, as appropriate, with the limits for restricted arylamine dyes, extractable heavy metals and free formaldehyde set out below – see the [EU Green Public Procurement Criteria for Textiles, 2017](#) for details and verification requirements, covering low emission padding materials.

Evaluators must have the capability to evaluate tenders that include a focus on circular outcomes, including subject matter experts. For example:

“XYZ public body is committed to sustainable textiles services [products] including the application of circular economy outcomes where relevant and proportionate while enabling SMEs, third sector and supported businesses to compete for contracts [include other environmental and socio-economic outcomes as appropriate]. Bidders are therefore required to demonstrate in a method statement how they will extend the useful life of textiles [supplied] used in the delivery of this service, through relevant durability, repair, re-use, refurbishment or remanufacturing including through sub-contracting arrangements and innovative solutions. This should include the key internal and external stakeholders involved and how you would seek to ensure cost effective and practical circular economy outcomes are delivered together with suggested performance measures which are capable of monitoring and reporting through contract management.”

An ideal response would demonstrate:

- Maintenance: the maintenance and repair of textile products in order to extend their useful life span. This includes the replacement of accessories and parts, fabric panel replacement and the retreating/reproofing of functional coatings;
 - Take-back: the collection and sorting of textile products in order to maximise their reuse and/or recycling. The procuring authority waives ownership of any textile products at the moment of their collection;
 - Purchase textiles and PPE that contain recycled materials and fibres;
 - Purchase textiles and PPE with a reduced use of environmentally harmful and hazardous substances in their production;
 - Purchase textiles that require less energy for drying and ironing;
 - Purchase colour-fast fabrics that do not shrink during use, are constructed to be durable in use and have longer-lasting functional coatings;
 - That textile products are selected based on durability and repairability;
 - That textile and PPE products are regularly maintained and repaired (this may be a separate contract the contractor has);
 - That products used may include re-used, refurbished or remanufactured products that meets quality and safety standards;
 - That, where possible, textiles products used may be re-used, repaired or remanufactured - either for internal re-use or externally (for example through exchanges or auctions);
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- That textile products, at the end of its useful life, that is capable of cost-effective repair or remanufacturing goes to a relevant contractor for this purpose and thereafter is redeployed/sold; and
 - That packaging contains more than 70% recycled content, that at least 90% of this is recyclable at end of life and is re-usable and re-used where possible.
-

Alternative example: “Contractors are required to demonstrate in a Circular Management Plan:

- how they will identify, prioritise and select options to prevent life cycle waste, minimise carbon emissions and material use through optimising the useful life of textile items used, installed or removed, including through innovative solutions, in conjunction with key stakeholders;
- [where relevant] supply or use products that has been refurbished or remanufactured and which are fit for intended use and meet all safety, quality and performance requirements, including the provision of relevant warranties.
- How the approach proposed supports the Authority’s [Net Zero / Carbon Reduction] aims.

Responses should be SMART and capable of being monitored through contract management.”

An ideal response may provide detail that supports some or all of the following [according to the scope of the contract]:

- How they will prioritise reused, refurbished or remanufactured products that meet the technical requirements and functional need. Where refurbished or remanufactured equipment is available evidence of their suitability to meet all requirements, including details of warranties available and life cycle costs;
 - How they will extend the useful life of textile products through relevant care, laundering, repair and refurbishment;
 - How textile products supplied are designed for durability, ease of disassembly, reuse, repair, recyclability;
 - How textile products minimise embodied carbon through inclusion of evidenced recycled content/ low carbon materials/ reduced material use;
 - Ability to provide (certified) embodied carbon figures for the products;
 - Detail of relevant technical requirements or standards that the products or materials meet, that relate to relevant circular outcomes;
 - How they will apply the waste hierarchy;
 - How they will apply and manage the above throughout their relevant supply chain;
 - How they will ensure that staff working on the contract have the necessary skills and training to practically implement circular approaches and support the transition to net zero; and,
 - Explanation of proposed methods and metrics to monitor and report implementation of agreed circular outcomes – see Contract Management for details.
-

(h) CONTRACT & SUPPLIER MANAGEMENT

Contract management



Contract management requirements and KPIs will be considered when developing the specification/ ITT or may be agreed with the preferred bidder during the mobilisation period.

This is a very important stage of the procurement process and ensures that evidence whether the intended, including circular, outcomes are being delivered or not is made available. This ensures there is evidence of how the procurement has contributed to aligned objectives.

KPIs – whilst monitoring contractual delivery and compliance – can be used to drive continual improvement in all aspects, particularly with respect to circular and environmental outcomes (e.g. ongoing increase in recycled content).

Monitoring technical requirements:

The implementation of asset management systems for inventories of textiles and PPE items will allow for data and feedback from end users on the condition and lifespan of the textiles to be collected on an ongoing basis.

Technical requirements may need to be continually monitored such as compliance with required standards.

For example, contract conditions that focus on relevant warranties, recycled content, sustainable materials may need to be monitored by the provision of appropriate evidence. For example: “Products used must contain a minimum of [x%] recycled content – the actual % of recycled content in products/ materials delivered against that specified shall be reported.”

Monitoring intended outcomes:

The use of quantitative KPIs is dependent on the availability of a baseline against which to measure improvement. This may not always be readily available, in which case focus on qualitative improvement in circular supply.

Potential contract management requirements and KPIs – it is not expected all of these will be relevant for all contracts so would need to be agreed.

Circular life cycle focus

Potential KPI, where data can be provided



Services: supply of managed service	How has the Contractor: <ul style="list-style-type: none"> • Reduced the supply/ use of products, while ensuring delivery of textiles needs? • Reduced the supply of single use items (where relevant)? 	<ul style="list-style-type: none"> • Product packaging that is re-used/reusable % • Products re-used/repaired/remanufactured, with appropriate evidence from service records %.
Sourcing: supply of products/ materials/ equipment.	How has the Contractor: <ul style="list-style-type: none"> • Reduced the supply or use of products, while ensuring delivery of textile requirements? • Improved the embodied carbon of textile and PPE products supplied, including evidence of highest level feasible recycled content/ appropriate use of refurbished or remanufactured products or equipment? 	<ul style="list-style-type: none"> • No. of products/ items/ materials types used • Quantity that incorporates circular design • Recycled content % • Material use avoided £, % or kg • Recyclable % • Reduction in CO₂ footprint of products • No. of refurbished /remanufactured products
Use: use of products/ materials/ equipment	How has the Contractor: <ul style="list-style-type: none"> • Commitment to repair as first remedy - enabled repair or refurbishment of products, materials or equipment supplied or used? • Enabled relevant reuse of products or materials? • Delivered the service in a manner to reduce emission impact? 	<ul style="list-style-type: none"> • Reuse number, % or kg • Repair/ Refurbish number, % or kg • Waste avoided % or kg
End of Life management	How has the Contractor applied waste hierarchy in removal of products/ packaging: <ul style="list-style-type: none"> • The design of workwear, textile and PPE products supplied or used so that they are easy to reuse or recycle? • Reuse or relevant resale of otherwise redundant products/ packaging? • Recycling of textile and/or PPE products or packaging? 	<ul style="list-style-type: none"> • Waste avoided £, % or kg • Reuse number, % or kg (products and packaging) • Recycled % or kg (products and packaging) • A list of items sold (if relevant) by the Contractor together with a statement of proceeds of sale.

Continual improvement

“The Contractor is required to work with the Client to continually improve the availability and accuracy of data and information provided that demonstrates how they are meeting the Client’s objectives, and/or identifies opportunities for further improvement in environmental, circular and related social outcomes. In particular, the Contractor is required to inform of all relevant Circular Economy opportunities arising from the service and work with the Client to assess and implement those that align with value for money and cost certainty.”



PACKAGING

(a) SCOPE OF GUIDANCE



Figure 1: Image Source: <https://www.crbgroup.com/insights/food-beverage/food-packaging-process>

- Packaging associated with delivery of goods, services and works procured by public bodies.
- Primary, Secondary and Tertiary packaging.
- Materials used include plastics, paper, wood, plastic films, laminated products



Packaging waste

- According to Scottish Environment Protection Agency ([SEPA](#)), over 10 million tonnes of packaging waste is produced every year in the UK.
- Packaging will generally be an ancillary by-product of the goods, services or works being procured in other spend areas, such as cleaning services, ICT, Furniture, Building products. It can also be a primary component, for example, NHS supplies and catering consumables.

Circular opportunities

- All this packaging provides good opportunities to ensure stronger circular supply considerations are embedded e.g. specification of reusable packaging and/or takeback options to ensure full recycling; substitution of non-recyclable or hard to recycle formats and materials; packaging formats to specify high levels of recycled content in order to stimulate markets for secondary materials.
- Procurers should consider not only the use (purpose) of the product and packaging, but also its likely ultimate waste management route, in order to select and specify the most suitable (environmentally friendly) packaging.
- Single material packaging is the simplest format for packaging but some applications e.g. drinks cups and food packaging may require composite formats.
- Many forms of plastic packaging can now be made from bio-based materials e.g. 'biodegradable' packaging made of polylactic acid (PLA), a bioactive thermoplastic polyester which is biodegradable, produced from renewable resources, typically corn starch or sugarcane. It is important to state that bioplastics should only be used where they can be effectively recycled or composted through the local waste management infrastructure. Procurers should also be aware that, if packaging is ultimately going to landfill, bio-based materials continue to generate emissions as they degrade, as opposed to fossil-based plastics which remain inert.
- Compostable packaging materials to [BS EN 13432](#) can also be considered, e.g. for food contact packaging (packaging certified to BS EN 13432 is an acceptable input material to commercial composting systems, including those that comply with BSI PAS 100 for composted products as well as the Compost Quality Protocol). Specifying the right material and format requires an understanding of the end-of-life management of the packaging and is therefore a priority action in the pre-tender stage.






Packaging producer responsibility

- At the time of writing this guide there is UK-wide collaboration on extending producer responsibility. This aims to:



- Avoid unnecessary packaging;
- Replace single-use packaging with reusable or refillable packaging;
- Incentivise design of packaging for recyclability;
- Increase the quantity of packaging recycled;
- Increase the quality of packaging recycled;
- Reduce litter.
- Contracting Authorities should also note the UK-wide tax on plastic packaging, that took effect from 1st April 2022. The tax applies to plastic packaging manufactured in (or imported into) the UK containing less than 30% recycled content. Businesses will be exempt from paying the tax if they manufacture or import less than 10 tonnes of plastic packaging in a 12-month period.

(b) RELEVANT POTENTIAL LIFE CYCLE APPROACHES

SOURCING: Circular Design  <p>Reduce total amount of materials.</p>  <p>Reduce amount of virgin inputs.</p>	USE: Circular Use	END OF LIFE: Circular Recovery  <p>Extend the useful life.</p>  <p>Maximise the reusability of a product or component.</p>  <p>Maximise the reusability or recyclability of materials.</p>
<ul style="list-style-type: none"> • Sustainable sourcing credentials, e.g. verified through Type 1 ecolabels such as FSC or PEFC certified. • Minimum levels of recycled content mandated. • Minimum levels of different material types used, e.g. avoiding composite formats where possible and, using single polymer plastics where possible. • Avoiding excessive use of materials and resources (e.g. Right-sizing and Right-weighting packaging). • Avoiding single use plastic. 	<ul style="list-style-type: none"> • Specifying reusable packaging materials. • Specifying wholly (mainstream) recyclable materials. • Avoid over packaging in primary and secondary packaging. • Reusing existing packaging where possible to extend packaging life. 	<ul style="list-style-type: none"> • Identifying opportunities for reuse, e.g., supplier take back of reusable packaging. • Ease of disassembly of packaging items, including ability to separate polymers used in packaging. • Ease of recyclability within mainstream waste management systems. • Use of recyclable closure consumables (e.g. paper tape), bio-based glue.



- Switching from single use to reusable packaging e.g. in drinks containers.

(c) THE MARKET FOR PACKAGING

The market – defined

Packaging typically falls into three levels of use:

- Primary (sales) packaging – the first layer of packaging containing the finished product at the point of purchase by the user/consumer (e.g., a bottle, plastic bag or a band around a magazine);
- Secondary (grouped) packaging - which groups a number of items together until the point-of-sale (e.g., plastic wrap, a box or strapping around a number of items); and,
- Tertiary (transport) packaging - which allows handling and transport of a number of grouped items as a unit (e.g., a pallet or banding/shrinkwrap).



Further consideration needs to be given to:

- Intended longevity of the packaging.
- Potential waste routes (residential / commercial).
- Potential waste treatment solutions.

Status of circular approaches within market

The market for tertiary and secondary packaging is mature in use of sustainably sourced materials, or those containing recycled content. Reuse models exist for transit packaging such as pallets.



- Innovative packaging, but with potential for further development/innovation.
- Increase reuse of packaging / use of take back schemes.
- Request wholly recyclable materials (mainstream recycling), use of single polymer plastics, limit laminate layers, adhesives and labels which all inhibit item recyclability. Mandate use / visibility of the On-Pack Recycling Label (OPRL) where relevant.
- Request use / increase of post-consumer recycled content in products.
- Request bio-based polymer (plastics), where feasible, as opposed to fossil-based.

SNAPSHOT EXAMPLE

The procurement: Procurement of computer hardware – laptops, desktops, mobile devices.

Circular approaches applied: Use of mushroom / bio-based packaging materials for primary level packaging of ICT equipment (instead of polystyrene).

KEY LESSONS: Ensure you identify the likely waste treatment solution, as a bio-based solution will continue to emit greenhouse gases in landfill, as opposed to incineration. Most public bodies are, at the time of writing this guide, unlikely to have a compostable solution available for disposal of a mushroom based packaging.



(d) PRE-PROCUREMENT – the essential stage

By giving consideration to the likely or intended use and function of the packaging at this early stage, the procurer can design in appropriate selection and specification requirements.

Consider the principal purpose or function of the packaging – is it purely functional (e.g. short life, to protect items in transit), or will the packaging be retained with the item. Does the packaging need to have a protective layer / barrier (e.g. to retain liquid)?

Consider at which point the packaging will be disposed of (commercial or residential setting) and likely available waste management routes.

	✓
<ul style="list-style-type: none"> • Are your technical requirements clear and understood by the market (e.g., product sizing/ weighting, purpose, durability, need for moisture (barrier) layers)? 	
<ul style="list-style-type: none"> • Have product waste management routes been identified and considered? 	
<ul style="list-style-type: none"> • Is market circular capability understood with respect to more sustainable solutions - can a durable recycled content card product be specified? 	
<ul style="list-style-type: none"> • Have you aligned packaging materials with most likely waste treatment route to identify the most sustainable solution (e.g., not sending bio-based products to landfill)? 	

(e) PRE-TENDER NOTIFICATION

Approach	Example
Set out the aims and objectives of the planned procurement within Contract Notice, including circular outcomes.	<p>“The Contracting Authority has included obligations within the specification and contract conditions relating to the circular economy, support for the transition to net zero and related socio-economic outcomes which are relevant to the service to be delivered.”</p> <p>“The Contracting Authority has mandated the use of wholly bio-based packaging materials in the supply of this contract [where relevant to the local waste infrastructure].”</p> <p>“The Contracting Authority has mandated a minimum level of post-consumer recycled content to be used in packaging materials used in supply of this contract.”</p>



(f) SUPPLIER SELECTION

Approach	Example
Include relevant climate selection criteria into your Single Procurement Document (SPD) in question 4C7 and 4D2 (where relevant):	Where the procurement has been identified as a 'relevant' or 'priority' climate change contract, see the Procurement Journey for the latest detail on how potential suppliers should provide necessary evidence of carbon reduction.
To assess the capability of potential suppliers in enabling circular economy outcomes the following could be asked:	<p>"The Contractor should demonstrate its prior experience in providing supply chain / material sourcing verification (use of standards such as FSC/PEFC) and how due diligence has been ensured on previous projects."</p> <p>"The Contractor must demonstrate experience of sourcing, verification and management of bio-based plastic products."</p> <p>"Detail your experience of provision of products containing certified recycled content (e.g. rPET)."</p> <p>"The Contractor should detail its experience of operating a packaging take back / reuse scheme, demonstrating ability to collect and reuse materials, limiting waste generation."</p>

An ideal response would demonstrate:

- Where bio-based plastics are to be used, evidence that the bidder has sourced and supplied such products and can evidence their source / composition.
- Evidence that the bidder understands and can comply with material certification requirements.
- Evidence that the bidder can operate a material take back scheme.
- Evidence of the bidder's ability to source and supply products containing certified recycled content.



(g) SPECIFICATION, TENDER & EVALUATION

The following are examples of potential clauses. These may need to be adjusted to suit the scope of a specific contract.

Before specifying...

Be clear on the purpose of the packaging, including the period it is required to maintain its durability and be deemed serviceable.

Where durability is a priority, recycled content paper can potentially perform less favourably (weaker strength compared like-for-like against other options) and may require a heavier grade of packaging to provide the desired level of durability.

Understand the potential waste management route that will apply in order to align the most suitable (least environmental impact) material to the waste treatment route.

Packaging requirements and criteria are not only applicable to the direct procurement of packaging, e.g. in catering, but also to packaging of many other products in different spend areas, e.g. building products, ICT, textiles, furniture etc. Criteria typically cover the following areas within packaging specifications:

- Waste minimisation, e.g. right-weighting of packaging;
- Compliance with all relevant packaging and waste regulations;
- Specification of sustainably sourced materials, e.g. verified through a Type 1, 2 or 3 ecolabel;
- Minimum levels of recycled content in plastic and cardboard packaging materials, with a preference for the maximum degree that is feasible;
- Use of returnable and reusable transit packaging within the supply chain wherever feasible, including re-usable packaging systems, such as unboxed palletised packaging or others;
- Recyclable materials, including the avoidance as much as possible of single-use plastics;
- Barriers and/ or coatings, e.g. in liquid containers; and
- Creative packaging design and innovative materials, where possible.

Specify material sourcing

For Wood / Paper based packaging (includes wood pallets):

“The materials used must meet FSC, PEFC or equivalent certification (FSC certification may be one of the following):

- FSC Recycled (this means that 100% of the paper/card came from recycled sources)
- FSC 100% (this means the paper/card has come from virgin forests but that have been responsibly managed and meet the highest environmental and social standards)



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- FSC Mix (this means the paper/card used is either from an FSC-certified forest, recycled material or controlled wood, or equivalent)."

"All timber to be used / supplier must be sourced in line with the [UK Timber Regulations](#)."

For other materials:

"Where plastic packaging is to be used / supplied, the Contractor must ensure:

- Where possible, single polymers are utilised (to aid recycling / material recoverability).
- Where possible, bio-based polymers are utilised.
- The On-Pack Recycling Label (OPRL) is included. The OPRL provides a simple, UK-wide, consistent recycling message for each packaging component (e.g., tray, carton, sleeve, film) and material (card, paper, foil, plastic etc). The main labels are:
 - Recycle – indicating 75% or more of UK local authorities collect the type of packaging, for onward sorting, processing and sale as recycle for use in new packaging or products; and
 - Don't Recycle – indicating fewer than 50% of UK local authorities collect the packaging type - and/or it is not effectively sorted, processed or sold as recycle for use in new packaging or products.
- All products contain a minimum of [x]% recycled content.
- Products are right-weighted where possible (whilst retaining 'fit for purpose') to minimise the extent of material in use.
- Materials used can be managed through mainstream waste collection and treatment / recycling services."

Specify recycled content

Where market engagement has shown inclusion of post-consumer recycled content in items is feasible (and remains competitive), select an appropriate minimum mandatory level for the specification. Levels of recycled content could be stated across a range of products, or by item (the minimum % could potentially apply to every product, or across the tender). For example:

"All wood / paper-based packaging must contain at least [X]% recycled content."

"All plastic packaging must contain minimum [Y]% recycled content."

Specify recyclability

"Any plastic packaging should be made of mono-polymers which are readily recyclable within the recycling facilities local to the authority – e.g., PET, HDPE, or LDPE."

"If required, inks and adhesives should be water-soluble."



“Contractors should seek to use closure materials compatible with paper/card waste streams (e.g. paper tape for packaging closure, rather than plastic)’ (to avoid contamination of plastic tape in paper / card waste streams).”

Specify reuse / take back

[Where feasible] “The bidder shall remove all packaging and ensure maximum levels of reuse, or recycling of materials.”

“The bidder is required to provide a product take back scheme for [e.g. wooden transit] packaging, that will ensure items remain in operation for as long as possible.”

EVALUATION & AWARD CRITERIA:

Weightings will reflect relevant risks and opportunities as well as the reliance on technical or functional specifications. Evaluators must have the capability to evaluate tenders that include a focus on circular outcomes, including subject matter experts.

“Detail what actions you will take to mitigate the environmental impact of packaging supplied under this contract. Such measures could include material reduction (e.g. grade or thickness of material), right-weighting, or substituting materials within packaging (for example, substituting materials for those with lower environmental and embodied carbon impact - e.g., increasing recycled content or moving from plastic to card).”

A materials hierarchy can be used to assess proposed packaging, awarding points for the most circular to less preferable options. Based on the purpose and waste management route, the Contracting Authority may define materials into categories and assess these, so rewarding the most preferable.

OR

“Detail your approach to reduction of the impact of single use plastics (SUPs) in the supply of this contract. This could include eliminating use of any such materials, or a commitment to ensure SUPs are fully recycled, contain recycled content, are made from bio-based polymers etc.”

AND/OR

“What proportion of packaging includes the On-Pack Recycling Label (OPRL) format?”

AND/OR

“What proportion of packaging includes the post-consumer recycled content?”

AND/OR

“Detail the packaging take-back program that would be available under this contract, including the materials / packaging that this would apply to (e.g. pallets, containers, boxes) and the management that would be applied (e.g. reuse, or recycling).”

AND/OR

“Detail how your organization ensures compliance with the UK Plastic Packaging Tax.”



An ideal response may provide detail that supports some or all of the following [according to the scope of the contract]:

- The bidder’s understanding of the material composition of packaging proposed and its associated environmental impact and the use of plastic and its commitment to reduction of single use plastic.
- Availability of any packaging take back scheme.
- Potential for packaging to include recycled content.
- Potential for packaging to have the OPRL.
- The ability of the bidder to support the Contracting Authority’s material reduction targets.

(h) CONTRACT & SUPPLIER MANAGEMENT

Contract management

Contract management requirements and KPIs will be considered when developing the specification/ ITT or may be agreed with the preferred bidder during the mobilisation period.

This is a very important stage of the procurement process and ensures that evidence whether the intended, including circular, outcomes are being delivered or not is made available. This ensures there is evidence of how the procurement has contributed to aligned objectives.

KPIs – whilst monitoring contractual delivery and compliance – can be used to drive continual improvement in all aspects, particularly with respect to circular and environmental outcomes (e.g. ongoing increase in recycled content).

Monitoring intended outcomes:

The use of quantitative KPIs is dependent on the availability of a baseline against which to measure improvement. This may not always be readily available, in which case focus on qualitative improvement in circular supply.

Potential contract management requirements and KPIs – it is not expected all of these will be relevant for all contracts so would need to be agreed.

Circular life cycle focus		Potential KPI, <u>where data can be provided</u>
Sourcing: supply of packaging	How has the Contractor: <ul style="list-style-type: none"> • Reduced the impact of supply of the packaging, whilst ensuring compliance with specification (fitness for purpose)? • Reduced carbon emissions associated with packaging? 	<ul style="list-style-type: none"> • Quantity of certified packaging provided (e.g. FSC) • Quantity / No. of products containing recycled content % • Quantity / No. of products containing OPRL labels % • Reduction in CO₂ footprint of products, e.g. through material change, right-weighting etc.



<p>Waste: recovery, reuse or recycling of materials</p>	<p>How has the Contractor:</p> <ul style="list-style-type: none"> • Reduced the volume of materials ending in waste streams. • Improved the recyclability of packaging. • Increased the take back and reuse of packaging. 	<ul style="list-style-type: none"> • Number / weight of packaging items included in 'take back' by contractor – broken down by items taken back for reuse, and those for recycling. • Number of packaging items recyclable (in mainstream waste management systems) and those not recyclable.
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Continual improvement

Continual improvement in packaging circularity may include:

“The Contractor is required to notify the Contracting Authority of opportunities for process or product improvement to support enhanced Circular Economy outcomes (e.g. changes to packaging material used) and to proactively seek to improve the sustainability of materials used and supplied.”

“The Contractor is required to work with the Client to continually improve the availability and accuracy of data and information provided that demonstrates how they are meeting the Client’s objectives, and/or identifies opportunities for further improvement in environmental, circular and related social outcomes. In particular, the Contractor is required to inform of all relevant Circular Economy opportunities arising from the service and work with the Client to assess and implement those that align with value for money and cost certainty.”