



# LOCOG Packaging Guidelines

– Version 2

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# Introduction

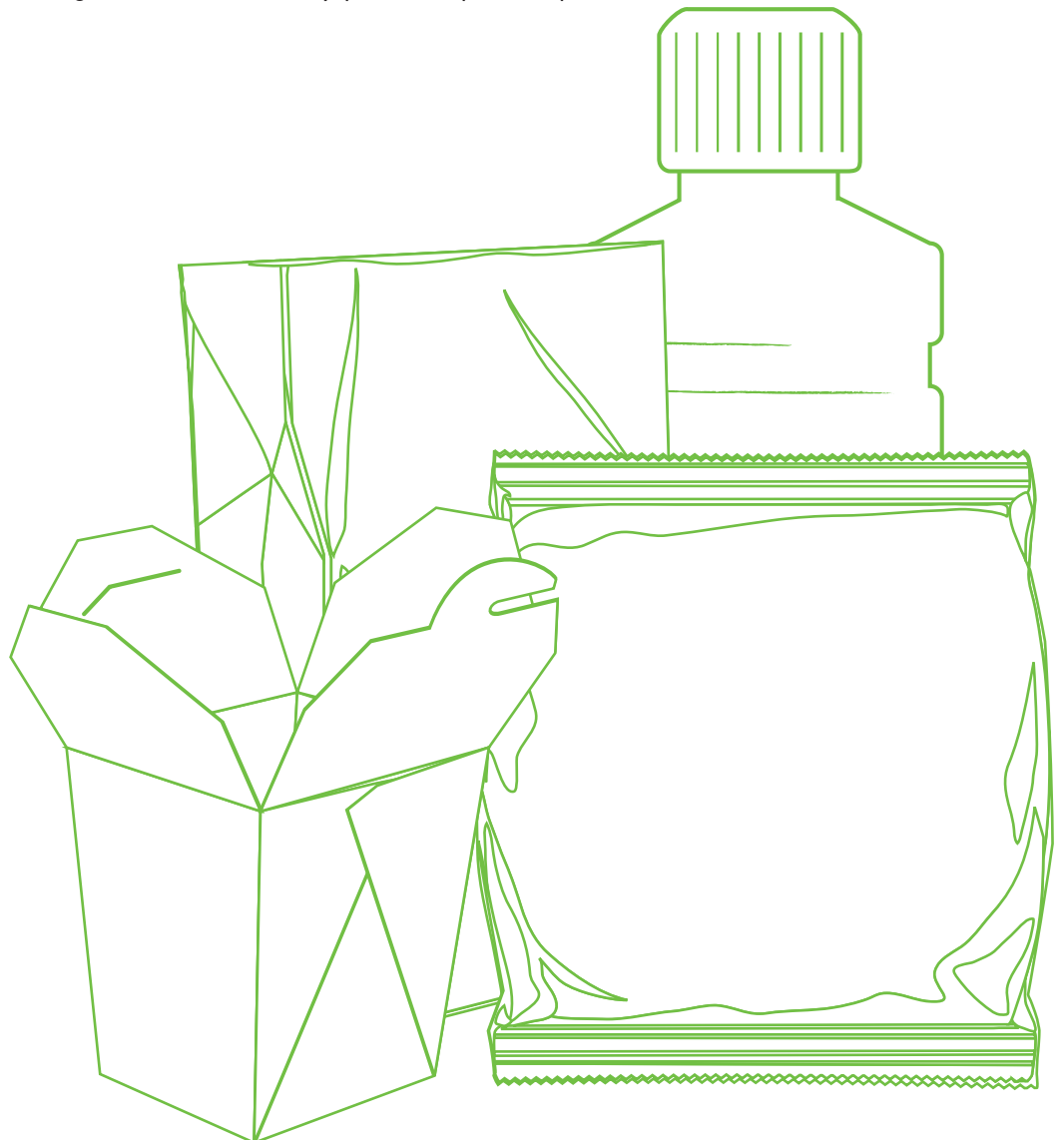
Packaging plays a crucial role in protecting manufactured products and perishable items. However, a significant proportion of packaging in use in the UK is over-specified and can only be used once.

We live in a very wasteful society. Much more can be done to avoid unnecessary waste, which would reduce demand for raw materials and ultimately reduce carbon emissions, leading to significant cost savings.

LOCOG is committed to staging a low-carbon Games and delivering a zero-waste Games. We have set a target to send zero-waste created within our venues throughout the 77-

day Games period directly to landfill. We have been extremely ambitious and aim to reuse, recycle or compost at least 70 per cent of this.

These guidelines are intended to provide additional advice to suppliers and licensees regarding the provisions of the **LOCOG Sustainable Sourcing** Code that relate to packaging design and materials selection. They are generic guidelines that apply to a number of product ranges and are intended to complement other guidelines/specifications developed for specific audiences, for example, caterers and licensees. They are not meant to provide detailed technical guidance, constitute legal opinion, or cover every possible option or product.



# What is packaging?

Packaging is anything that is used to contain, protect, deliver, handle or present goods. Goods may be raw materials or processed items.

There are three categories of packaging:

## Primary packaging

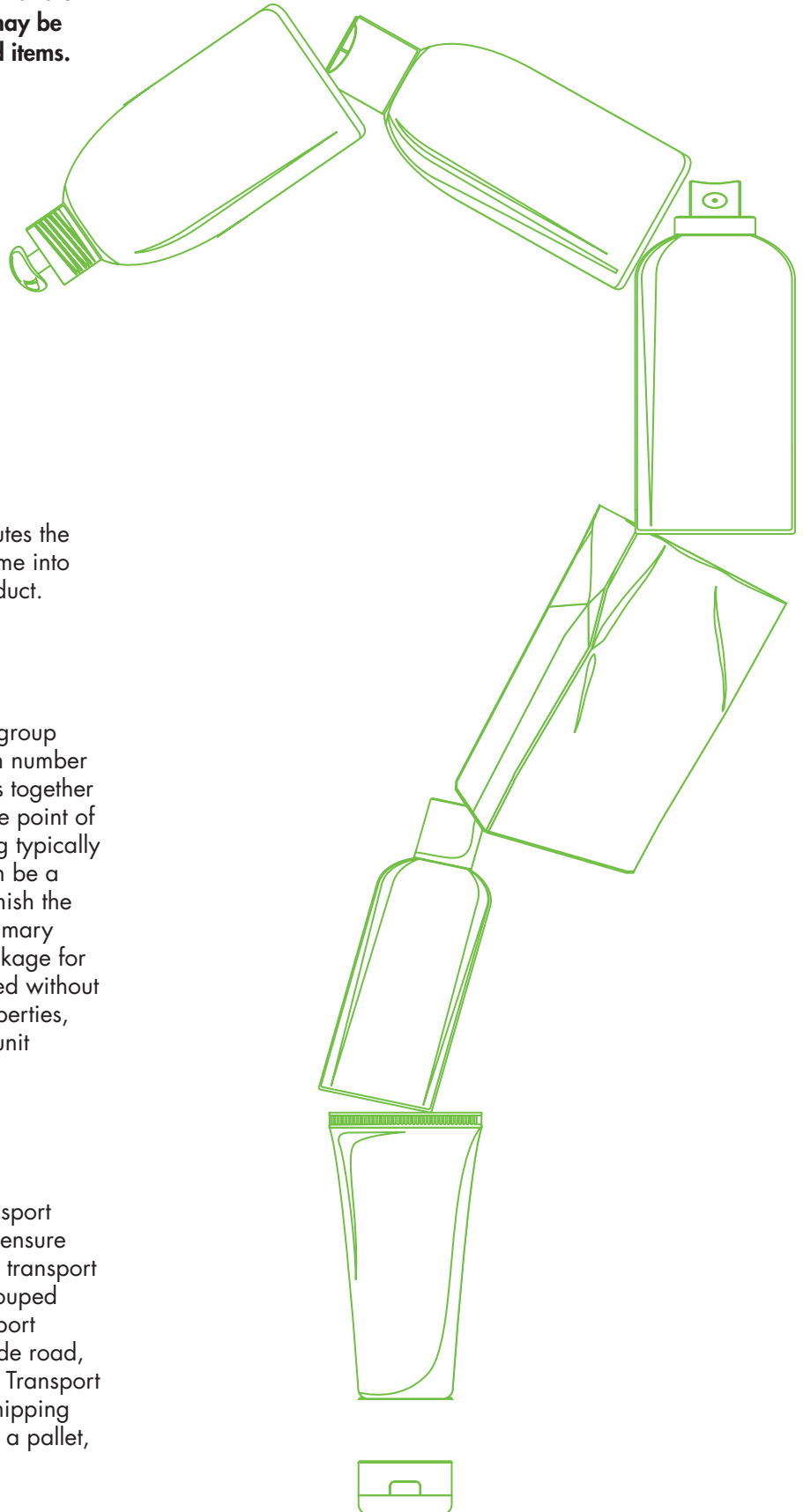
Primary packaging constitutes the packaging designed to come into direct contact with the product.

## Secondary packaging

Secondary packaging (or group packaging) groups a given number of primary packaging units together into a convenient unit at the point of sale. Secondary packaging typically has one of two roles: it can be a convenient means to replenish the shelves; or it can group primary packaging units into a package for purchase. It can be removed without affecting the product's properties, and generally defines the unit handled by the retailer.

## Tertiary packaging

Tertiary packaging (or transport packaging) is designed to ensure damage-free handling and transport of a number of sales or grouped packages. The term "transport packaging" does not include road, rail, ship or air containers. Transport packaging is normally a shipping unit such as an outer case, a pallet, or a crate.



# Packaging design

With much of a product's footprint being determined at design stage, there is a real opportunity to design out waste. The waste hierarchy provides a broad framework to help determine the approach to packaging, in order of preference as follows:

## Prevention

- Try to get rid of some or all of the packaging, for example, by removing unnecessary layers or changing handling practices.
- Use less material in the first instance through size, thickness and weight of material.
- Use less hazardous materials, for example, avoid substances and materials in the [LOCOG Sustainable Sourcing Code](#) restricted substances and materials list (Appendix C).

## Preparing for re-use

- Design packaging that serves its purpose over virtually any number of 'trips', for example, use of refills.
- Sort, clean, check and repair packaging so it can be reused, for example, pallets.

## Recycle

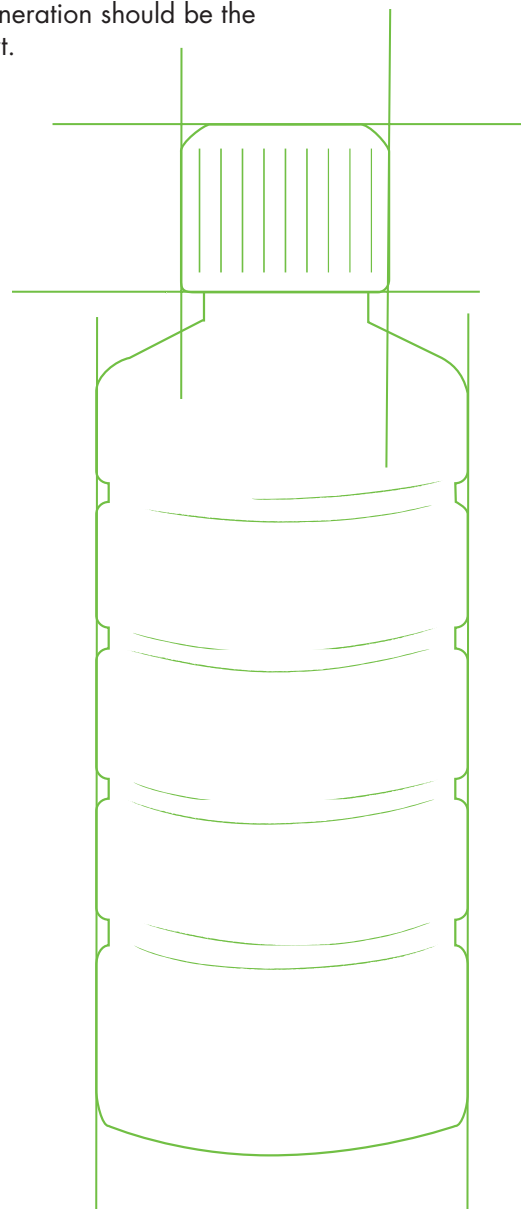
- Design packaging to make it less costly and/or environmentally damaging to recycle even if it has been reused.
- Includes composting if it meets quality protocols.

## Recovery

- Incineration with energy recovery, gasification and pyrolysis which produce energy.
- Includes composting if it does not meet quality protocols.

## Dispose

- Design can still play a part in disposal, for example, by maximising energy recovery while minimising residual waste.
- Disposal to landfill or by mass-burn incineration should be the last resort.



# Materials selection

**Choosing the materials is a vital part of making packaging more efficient. Careful consideration must be given to the function of the packaging and the potential to avoid its use.**

Many suppliers and licensees are effectively supplying products to LOCOG within a closed supply chain. This may present unique and innovative opportunities to strip out unnecessary packaging. For example, LOCOG will generally not want to receive any packaging which is only there to enhance and help sell a product.

Suppliers and licensees should note that they may be required to take back, at their expense, any excess or non-compliant packaging related to their products for subsequent reuse or recycling.

Where packaging is required, it should ideally be manufactured using materials that can be reused and are classed as widely recycled<sup>1</sup>.

Suppliers and licensees should seek to avoid supplying packaging which includes any restricted substances and materials identified in Appendix C of the [LOCOG Sustainable Sourcing Code](#).

## Reusable packaging

Suppliers and licensees should maximise the use of packaging that can be used again and again. This will deliver cost savings and environmental benefits.

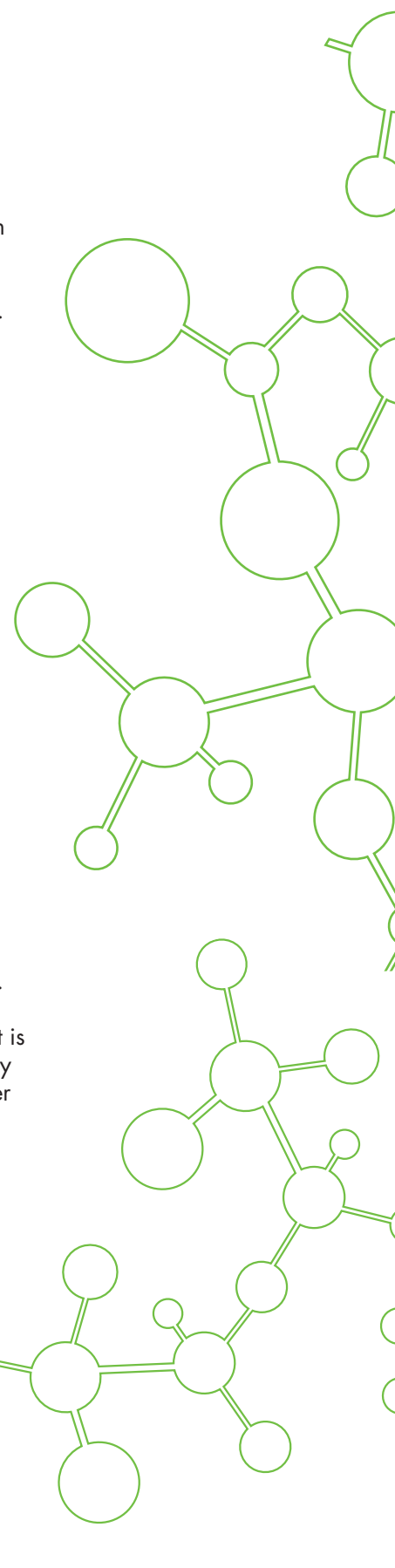
Consideration should also be given to the recyclability of the materials, so that the packaging can be recycled at the end of its useful life.

## Recyclable packaging

There are many materials that are technically recyclable. However, in practice there are a limited number of materials that are widely recycled. For example, paper, cardboard, and bottles made of glass, polyethylene terephthalate (PET), high density polyethylene (HDPE) or polypropylene (PP) are commonly collected by councils for recycling. Materials such as low density polyethylene (LDPE) can be recycled where facilities exist but are generally not collected by local authorities.

Consideration should therefore be given to the end user and how they can dispose of the packaging. The materials matrix (see page 8) provides more information on what is commonly collected for recycling by local authorities and is a good steer to what materials should be used.

<sup>1</sup> Widely recycled refers to where the majority of local authorities have facilities for that packaging type in their area



## Compostable packaging

Compostable packaging should only be used where it is not possible to reuse or recycle such items easily and permission has been obtained from LOCOG – note the following scenarios below:

- Packaging likely to enter the household waste stream: Items intended to be home compostable should have received formal certification of home compostability from a registered body such as the Association for Organics Recycling (AFOR).
- Packaging likely to be discarded at LOCOG venues during the Games or enter another pre-agreed commercial waste stream: Items intended for industrial composting need to meet the criteria set out in the [LOCOG Sustainable Sourcing Code](#) (refer to ‘Compostable products and packaging’ in the glossary) and be formally submitted to LOCOG for approval to confirm that items are fit for purpose (this may involve an independent review by a specialist third party).

Suppliers and licensees must retain appropriate documentation in respect to any compostable packaging supplied.

## Oxo-degradable packaging

Unless otherwise agreed with LOCOG, oxo-degradable packaging<sup>2</sup> (including film wrapping) is not permitted to be supplied.

<sup>2</sup> Oxo-degradable products and packaging are defined in the [LOCOG Sustainable Sourcing Code](#) (3rd edition)

## Recycled content

Suppliers and licensees should maximise opportunities to use packaging with recycled content.

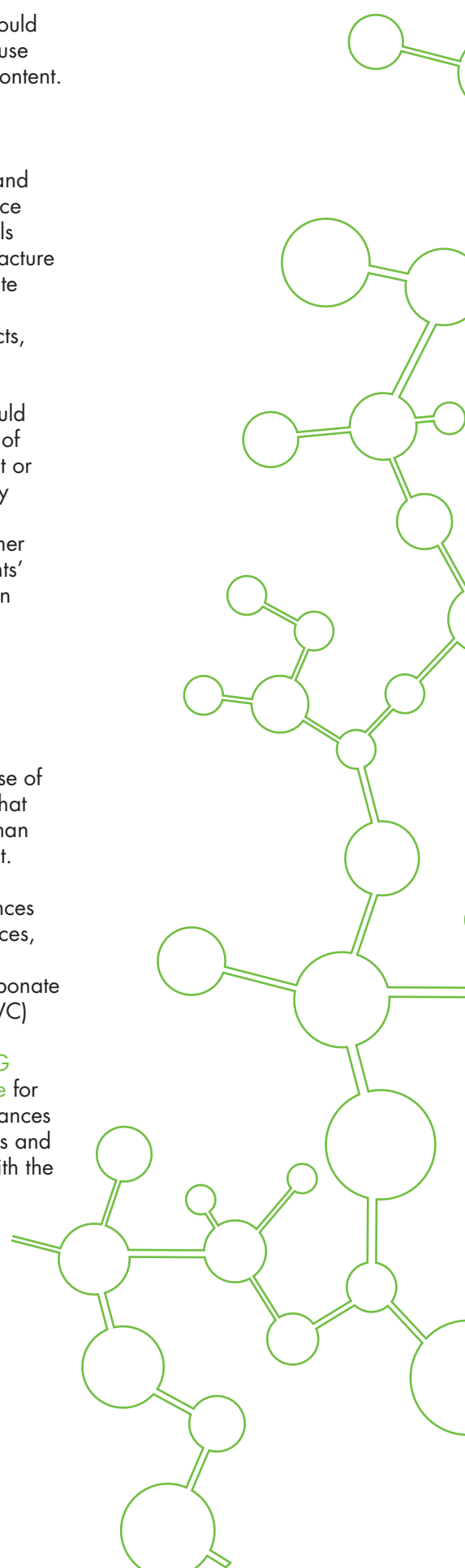
Packaging materials that include recycled content (especially glass, plastics and certain carton board) reduce the amount of raw materials and energy used to manufacture packaging. They also create markets for what would otherwise be waste products, and reduce disposal costs.

Recyclable packaging should aim to contain a minimum of 5 per cent recycled content or achieve the current industry average for the material in question, whichever is higher (refer to ‘Other requirements’ section below for advice on certain materials).

## Restricted substances and materials

LOCOG encourages the use of substances and materials that represent a low risk to human health and the environment.

Similarly, restricted substances and materials and substances, for example, expanded polystyrene (EPS), polycarbonate (PC), polyvinyl chloride (PVC) should be avoided. See Appendix C of the [LOCOG Sustainable Sourcing Code](#) for a full list of restricted substances and materials. All materials and substances must comply with the relevant legislation.



# Materials matrix

**The materials matrix (overleaf) provides a list of standardised reference names for packaging components and materials types. It also indicates the appropriate recycling status of each combination.**

## Using the packaging materials matrix

The packaging materials matrix is not aimed at providing a definitive list of every element of packaging that technically can be recycled.

Suppliers and licensees should note the following:

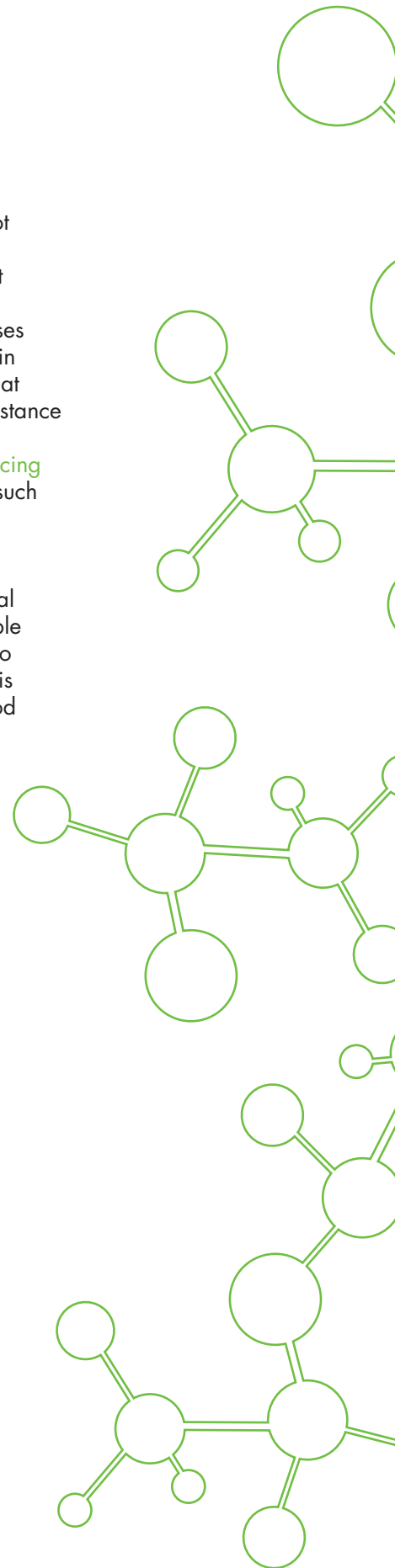
- Suppliers and licensees shall seek to maximise the use of packaging materials identified as widely recycled.
- Where materials of limited recyclability cannot be avoided, suppliers and licensees shall identify how such items can be recycled.
- Where dark plastic packaging is required or desired, a colour other

than black should be specified.

- Suppliers and licensees shall avoid using materials that cannot currently be recycled unless an overall net environmental benefit can be demonstrated.
- If the supplier or licensee proposes to use a material type not listed in the matrix, they should ensure that it is not a LOCOG restricted substance or material (refer to Appendix C of the [LOCOG Sustainable Sourcing Code](#)) and should identify how such items can be reused, recycled, or composted.

LOCOG acknowledges that several materials may ultimately not be able to be recycled, for example, due to contamination from the product it is protecting. For instance, direct food contact packs that are in direct contact with greasy foods that leave a significant food residue.

The matrix is under continual review and may therefore be subject to change.



# Materials matrix

| Material                   | Component | Aerosol | Bag | Band | Base | Blister | Booklet | Bottle | Box | Can | Cap | Card | Carton | Clip | Closure | Collar | Cover | Cup | Film | Foil | Handle | Insert | Jar | Label – loose | Label – glued | Leafllet | Lid | Net | Pad | Packing | Paint can | Pot | Pouch | Pump | Sachet | Sleeve | Tag | Tape | Tin | Tissue | Tray | Trigger | Tub | Tube | Window | Wrap |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------|---------|-----|------|------|---------|---------|--------|-----|-----|-----|------|--------|------|---------|--------|-------|-----|------|------|--------|--------|-----|---------------|---------------|----------|-----|-----|-----|---------|-----------|-----|-------|------|--------|--------|-----|------|-----|--------|------|---------|-----|------|--------|------|--|--|--|--|--|--|--|--|--|--|--|
| Glass                      |           |         |     |      |      |         |         |        |     |     |     |      |        |      |         |        |       |     |      |      |        |        |     |               |               |          |     |     |     |         |           |     |       |      |        |        |     |      |     |        |      |         |     |      |        |      |  |  |  |  |  |  |  |  |  |  |  |
| Metal                      |           | ☺       |     |      |      |         |         |        |     |     |     |      |        |      |         |        |       |     |      |      | ☺      |        |     |               |               |          |     |     |     |         |           |     |       |      |        |        |     |      |     |        |      |         |     |      |        |      |  |  |  |  |  |  |  |  |  |  |  |
| Paper and Card             |           |         |     |      |      |         |         |        |     |     |     |      |        |      |         |        |       |     |      |      |        |        |     |               |               |          |     |     |     |         |           |     |       |      |        |        |     |      |     |        |      |         |     |      |        |      |  |  |  |  |  |  |  |  |  |  |  |
| Plastic – PET              |           |         |     |      |      |         |         |        |     |     |     |      |        |      |         |        |       |     |      |      |        |        |     |               |               |          |     |     |     |         |           |     |       |      |        |        |     |      |     |        |      |         |     |      |        |      |  |  |  |  |  |  |  |  |  |  |  |
| Plastic – all exp. plastic |           |         |     |      |      |         |         |        |     |     |     |      |        |      |         |        |       |     |      |      |        |        |     |               |               |          |     |     |     |         |           |     |       |      |        |        |     |      |     |        |      |         |     |      |        |      |  |  |  |  |  |  |  |  |  |  |  |
| Plastic – HDPE             |           |         |     |      |      |         |         |        |     |     |     |      |        |      |         |        |       |     |      |      |        |        |     |               |               |          |     |     |     |         |           |     |       |      |        |        |     |      |     |        |      |         |     |      |        |      |  |  |  |  |  |  |  |  |  |  |  |
| Plastic – LDPE             |           |         |     |      |      |         |         |        |     |     |     |      |        |      |         |        |       |     |      |      |        |        |     |               |               |          |     |     |     |         |           |     |       |      |        |        |     |      |     |        |      |         |     |      |        |      |  |  |  |  |  |  |  |  |  |  |  |
| Plastic – PP               |           |         |     |      |      |         |         |        |     |     |     |      |        |      |         |        |       |     |      |      |        |        |     |               |               |          |     |     |     |         |           |     |       |      |        |        |     |      |     |        |      |         |     |      |        |      |  |  |  |  |  |  |  |  |  |  |  |
| Plastic – PS               |           |         |     |      |      |         |         |        |     |     |     |      |        |      |         |        |       |     |      |      |        |        |     |               |               |          |     |     |     |         |           |     |       |      |        |        |     |      |     |        |      |         |     |      |        |      |  |  |  |  |  |  |  |  |  |  |  |
| Plastic – PVC*             |           |         |     |      |      |         |         |        |     |     |     |      |        |      |         |        |       |     |      |      |        |        |     |               |               |          |     |     |     |         |           |     |       |      |        |        |     |      |     |        |      |         |     |      |        |      |  |  |  |  |  |  |  |  |  |  |  |
| Plastic – Other            |           |         |     |      |      |         |         |        |     |     |     |      |        |      |         |        |       |     |      |      |        |        |     |               |               |          |     |     |     |         |           |     |       |      |        |        |     |      |     |        |      |         |     |      |        |      |  |  |  |  |  |  |  |  |  |  |  |
| Bio / Compostable          |           |         |     |      |      |         |         |        |     |     |     |      |        |      |         |        |       |     |      |      |        |        |     |               |               |          |     |     |     |         |           |     |       |      |        |        |     |      |     |        |      |         |     |      |        |      |  |  |  |  |  |  |  |  |  |  |  |
| Degradable                 |           |         |     |      |      |         |         |        |     |     |     |      |        |      |         |        |       |     |      |      |        |        |     |               |               |          |     |     |     |         |           |     |       |      |        |        |     |      |     |        |      |         |     |      |        |      |  |  |  |  |  |  |  |  |  |  |  |
| Mixed Material             |           |         |     |      |      |         |         |        |     |     |     |      |        |      |         |        |       |     |      |      |        |        |     |               |               |          |     |     |     |         |           |     |       |      |        |        |     |      |     |        |      |         |     |      |        |      |  |  |  |  |  |  |  |  |  |  |  |

\*Refer to the LOCOG list of restricted substances and materials (Appendix C, Sustainable Sourcing Code)

Modified from the Materials Matrix contained in the 'On-pack guidelines' prepared by the Waste and Resources Action Programme (WRAP) and the British Retail Consortium in April 2011. (Version 3 April 2011 –April 2012).

## Key

Can be widely recycled ☺

where around 65 per cent, or more, of local authorities have good access to recycling facilities for that material

May be able to be recycled in limited areas ☺

where packaging types are supported by 15–65 per cent of local authorities

Not currently able to be recycled ☹

where packaging types are supported by less than 15 per cent of local authority collection coverage

Not applicable

# Other requirements

**This section provides some further advice on specific aspects not covered elsewhere in these guidelines.**

## Paper and card

Paper and card used for non-contact food contact applications should be produced using non-chlorinating bleaching methods and aim to achieve 75 per cent post-consumer recycled content for coated paper, and 100 per cent post-consumer waste for uncoated paper. Unless otherwise agreed with LOCOG, any virgin fibre used must generally be from Forest Stewardship Council (FSC) certified sources. All carton board and corrugated packaging should contain a minimum of 50 per cent recycled content.

Laminate and ultraviolet varnish and waxed finishes should be avoided because this may impede recyclability.

## Windowed packs

The use of windowed packs should be avoided unless the window is easily separable.

## Glass

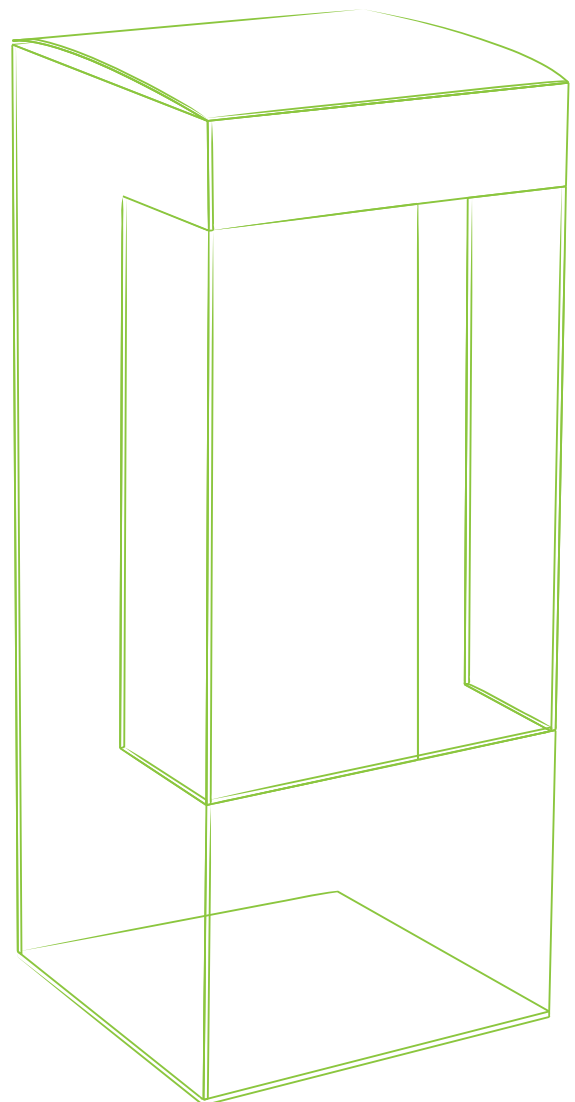
If approved for supply, glass packaging should be as lightweight as is feasible and should meet or exceed industry averages on recycled content.

## Metal and foil

If approved for supply, metal packaging should be as lightweight as is feasible. Metal packaging can be recycled into new packaging or be used in other applications indefinitely with no loss of quality.

## Films and wraps

Use of film-based plastics should to the extent practicable be minimised. Where unavoidable preference should be given to selecting LDPE materials. Approval should be sought from LOCOG if significant quantities of such materials are proposed to be used.



## Carrier bags

Light weight carrier bags can end up as litter, causing damage to wildlife as well as being an eyesore. They are also rarely collected as part of local authority kerbside collections and most local recycling centres will not accept them either. However, many retailers have in-store facilities for collecting carrier bags.

LOCOG does not permit the use of single-use plastic bags and requires its official shops and caterers only to offer bags to customers if absolutely necessary. We do not permit the use of oxo-degradable plastics or compostable biopolymers, which can find their way into the household waste stream.

Bags which are available in London 2012 shops are made from low density polyethylene (LDPE) which contains a minimum of 80 per cent recycled material. They are capable of being reused many times and can be recycled at the end of their useful life. Paper bags will only be available at certain Games catering locations for large orders of food which need to be taken away. Suppliers and licensees should avoid the use of carrier bags. If they feel they are necessary they should ensure they are demonstrably reusable and seek prior approval from LOCOG.

## Claims and declarations

Any claims and declarations that specifically relate to the packaging (for example, recycled content or recyclability) should be in accordance with the relevant provisions of the [LOCOG Sustainable Sourcing Code](#).

LOCOG has signed up to the [On Pack Recycling Label \(OPRL\)](#) scheme. The OPRL icons help consumers understand what they cannot /should not recycle, as well as what they can.

As such its licensees are able to access this scheme for London 2012 branded packaging. The OPRL icons should be used wherever appropriate and practicable on London 2012 merchandise packaging.

LOCOG has also worked with the [Waste and Resources Action Programme \(WRAP\)](#) to develop a variant of the scheme to aid the recycling of items at venues during the Games.

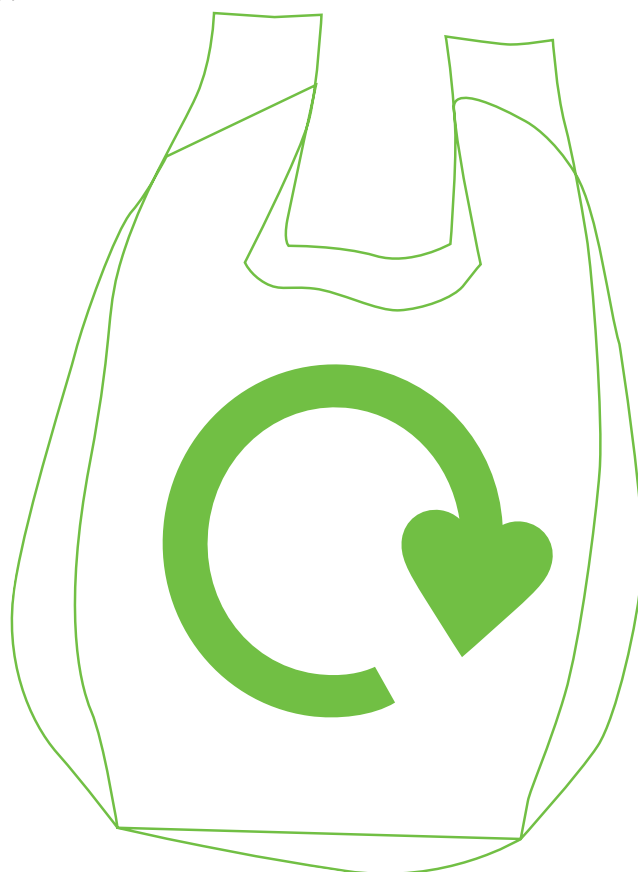
Other suppliers are also encouraged to use the OPRL icons on their packaging, if relevant, but need to sign up to the scheme in their own right.

## Printing and labelling

Printing and labelling of packaging should not in any way compromise recycling or, if relevant, composting.

WRAP can provide further specific labelling advice in respect to certain packaging materials, such as PET, HDPE and so on, if required.

Suppliers and licensees wishing to print or label compostable items should first seek advice from LOCOG.



# Annex A: Legislation

**Packaging legislation is driven by the Packaging and Packaging Waste Directive (94/62/EC) – the ‘Packaging Directive’ – which is concerned with minimising the creation of packaging waste material and promotes energy recovery, re-use and recycling of packaging. In the UK this is implemented through the Producer Responsibility Obligations (Packaging Waste) Regulations 2007 (as amended) and the Packaging (Essential Requirements) Regulations 2003 (as amended).**

## Packaging waste regulations

Originally introduced in the UK in 1997, the Producer Responsibility Obligations (Packaging Waste) Regulations 2007 (as amended) place obligations on certain businesses to register with the relevant UK environment agency (for example, the Environment Agency in England and Wales) or via a ‘compliance scheme’, to recover and recycle specified tonnages of packaging waste each year and to certify that this recovery and recycling has been achieved.

‘Producers’ are businesses which are involved in the import or production and supply of packaging or packaged items and which individually or as part of a group of companies exceed two thresholds:

- If they handle more than 50 tonnes of packaging per year; and
- Have a turnover of more than £2 million per year.

Each packaging related activity (for example, filling packaging, selling packaged products, etc) has a percentage obligation associated with it based on the amount of packaging and packaging material handled, the activity performed on each material, and associated business targets for those materials. Businesses that have obligations need to ensure they have systems in place to record the amount of packaging placed on the UK market. Obligations are based on what they did in the previous year (that is, how much packaging they handled) rather than what they are doing this year. Imports should not be overlooked (they carry a rolled-up obligation in respect of the activities that took place overseas) and must be aware that the regulations do not just apply to consumer packaging – cans, packets, bottles, etc – but also to secondary and transit packaging, such as shrink-wrap, drums, pallets and boxes.

Producers must register annually with one of the UK environment agencies or a producer compliance scheme. Around 5,000 businesses are currently registered, of which around 90 per cent are registered with the 20 or so compliance schemes. Each producer must finance the recovery of a proportion of the UK’s packaging waste.



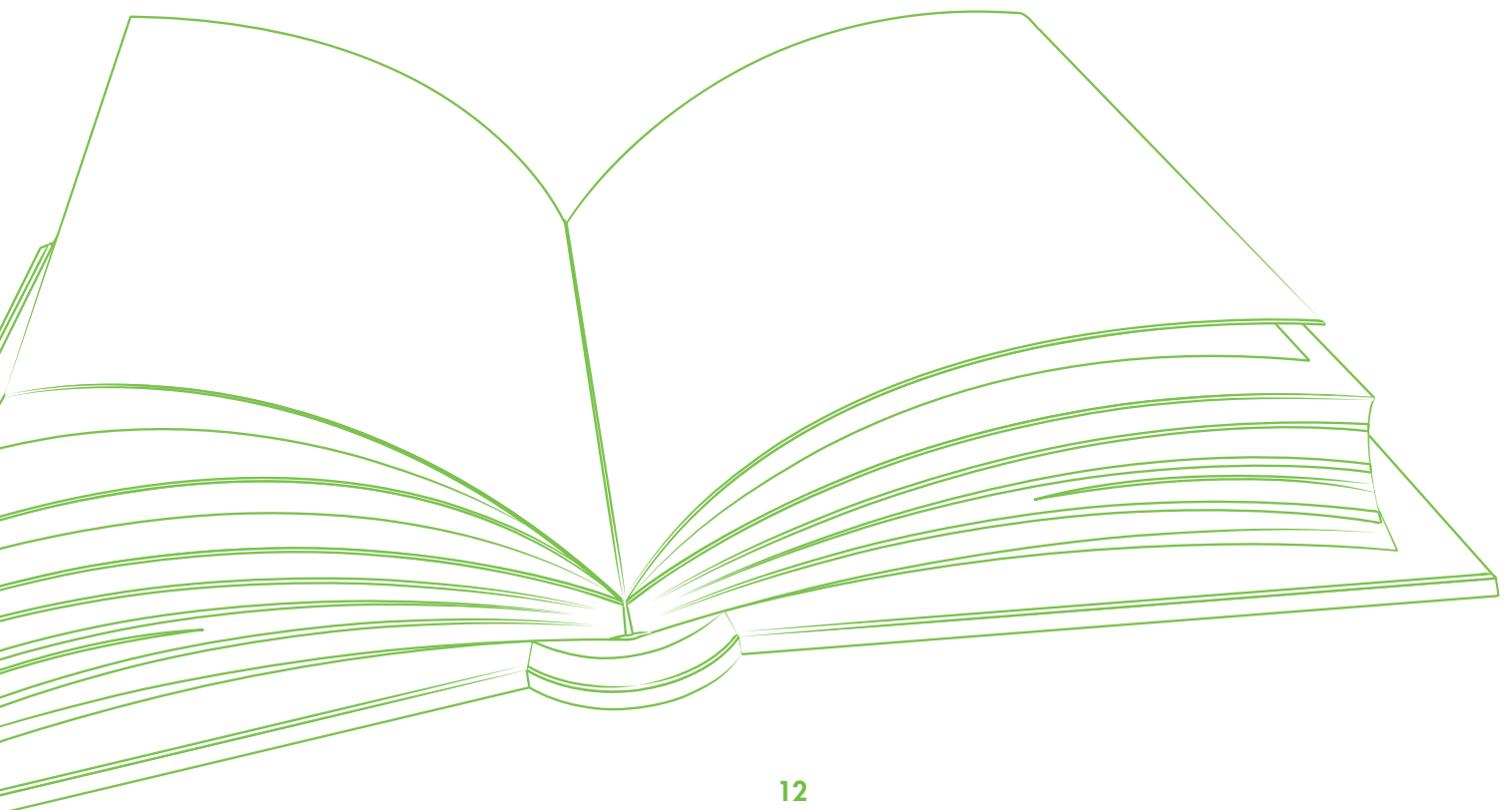
Failure to comply with the regulations can result in civil sanctions, a criminal prosecution and, in a Crown Court, an unlimited fine. The Environment Agency has taken several hundred prosecutions under the regulations since 1997. In July 2009, the courts imposed the largest penalty to date on an organisation for not complying with the legislation (fine and costs totalling £271,800).

The legislation was amended in 2005 to introduce requirements in respect to licensors and licensees. LOCOG has been in discussion with the Environment Agency regarding the impact of these provisions in the context of its own commercial licensing programme. The following flowchart has been produced to provide some additional advice on this issue.

Suppliers and licensees should note the core requirements in the [LOCOG Sustainable Sourcing Code](#) and put appropriate mechanisms and systems in place to record any packaging or packaging materials (paper, glass, metals, plastic, wood, other) that are associated with the supply of licensed products (refer to the Use of Secondary Materials section of the [LOCOG Sustainable Sourcing Code](#)).

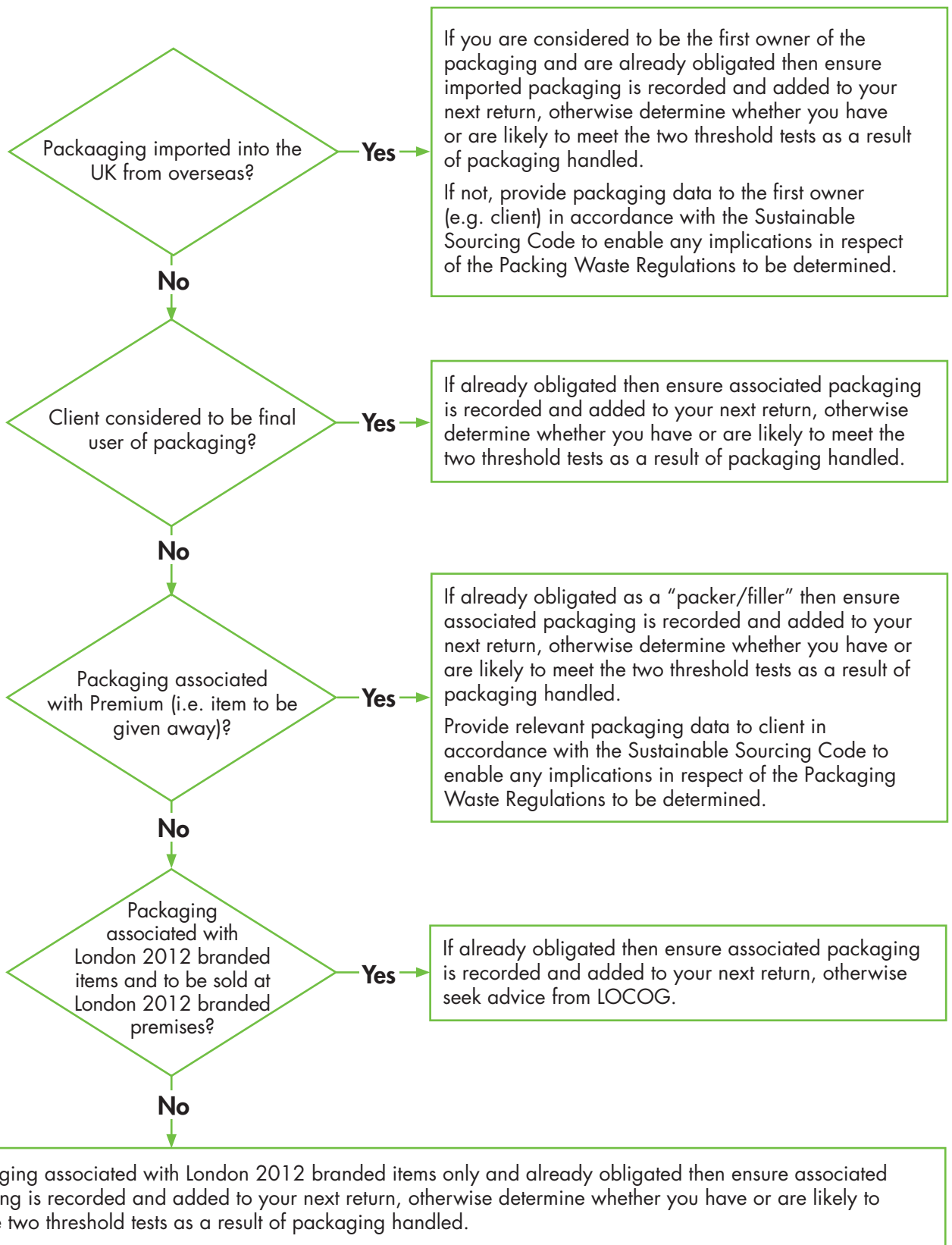
### Essential requirements

The Department for Business, Innovation and Skills (BIS) manages the Packaging (Essential Requirements) Regulations: these regulations place a duty on producers of packaging to ensure that the packaging used around products is kept to the minimum amount necessary without breaching required levels for safety and hygiene and consumer acceptance.



# Packaging Waste Regulations Decision Support

## Assessment for Suppliers and Licensees



**Note:** Client relates to the *organisation* placing the order for the item and could include LOCOG, its Key Stakeholders, its Commercial Partners and its other suppliers and licencees.

# Annex B: Further guidance and information

Further advice and information on packaging is available from the following resources:

## Waste and Resources Action Programme (WRAP)

WRAP works with businesses, individuals and communities to help them reap the benefits of reducing waste, developing sustainable products and using resources in an efficient way. There is an extensive range of online tools and resources available which relate to packaging, waste management and recycled content.

As previously stated, these guidelines are intended to provide a steer on LOCOG's expectations regarding packaging design and materials selection. It is not meant to be technical guidance, nor is it meant to be comprehensive, covering every possible option or product. For guidance on this, suppliers and licensees are directed to 'An introduction to packaging and recyclability'.

## Envirowise

Envirowise delivers environmental advice to businesses and has a range of online tools and publications available.

Its publication 'GG360 Packaging design for the environment: reducing costs and quantities' is intended to help both management and designers/specifiers to take a fresh and systematic look at packaging design with a view to reducing its cost and its impact on the environment. It focuses mainly on primary product packaging, although it also covers secondary (grouped) and tertiary (transit) packaging.

## Recoup

Guidance for plastic packaging Recoup's guide, 'Plastics packaging, recyclability by design – what every designer and specifier should know', is a useful tool for ensuring that the most optimum combinations of plastics are being specified in packaging combinations that are complementary to the reprocessing system.

## Guidance for compostable packaging

In addition to WRAP, there are several other organisations that can provide specific advice and guidance on compostable packaging, including:

- The **National Non-Food Crops Centre (NNFCC)** specialises in providing information and knowledge on the supply of biomass, its use in industrial applications and the fate of biomaterials at their end-of-life. The NNFCC also convenes the UK Renewable Packaging Group.
- The **Association for Organics Recycling (AFOR)** is the leading trade organisation for the compostable waste management industry in the UK.

## Legislation

A list of registered businesses which are already obligated under the Packaging Waste Regulations is available from the Environment Agency [here](#).

Further information is available from the [Department of Environment, Food and Rural Affairs \(Defra\)](#) and the [Environment Agency](#).

Further information in respect to the [Packaging \(Essential Requirements\) Regulations 2003](#) is available from BIS.