



Waste Category Group Mapping and Materials

London, 10th June 2019

Summary

1. The 2nd meeting of the Waste Category Group was held on 10th June at Canary Wharf Group offices in London.
2. We discussed the detail of the first horizontal sub-group: Mapping Initiatives and Priority Materials and what actions we can take against the following themes:
 - a) Identifying and mapping other waste initiatives – where is the additional benefit the School can bring on waste and resource efficiency? Group work and discussion
 - b) Priority materials and waste streams – which should be our focus and what activities can we undertake? Group work and discussion
 - c) Material exchange portals – how do we as the School increase awareness and uptake of them? Group work and discussion
3. The outcomes and actions from these discussions have been listed below under each of the three headings.
4. The Annex contains the additional slides presented at the meeting.

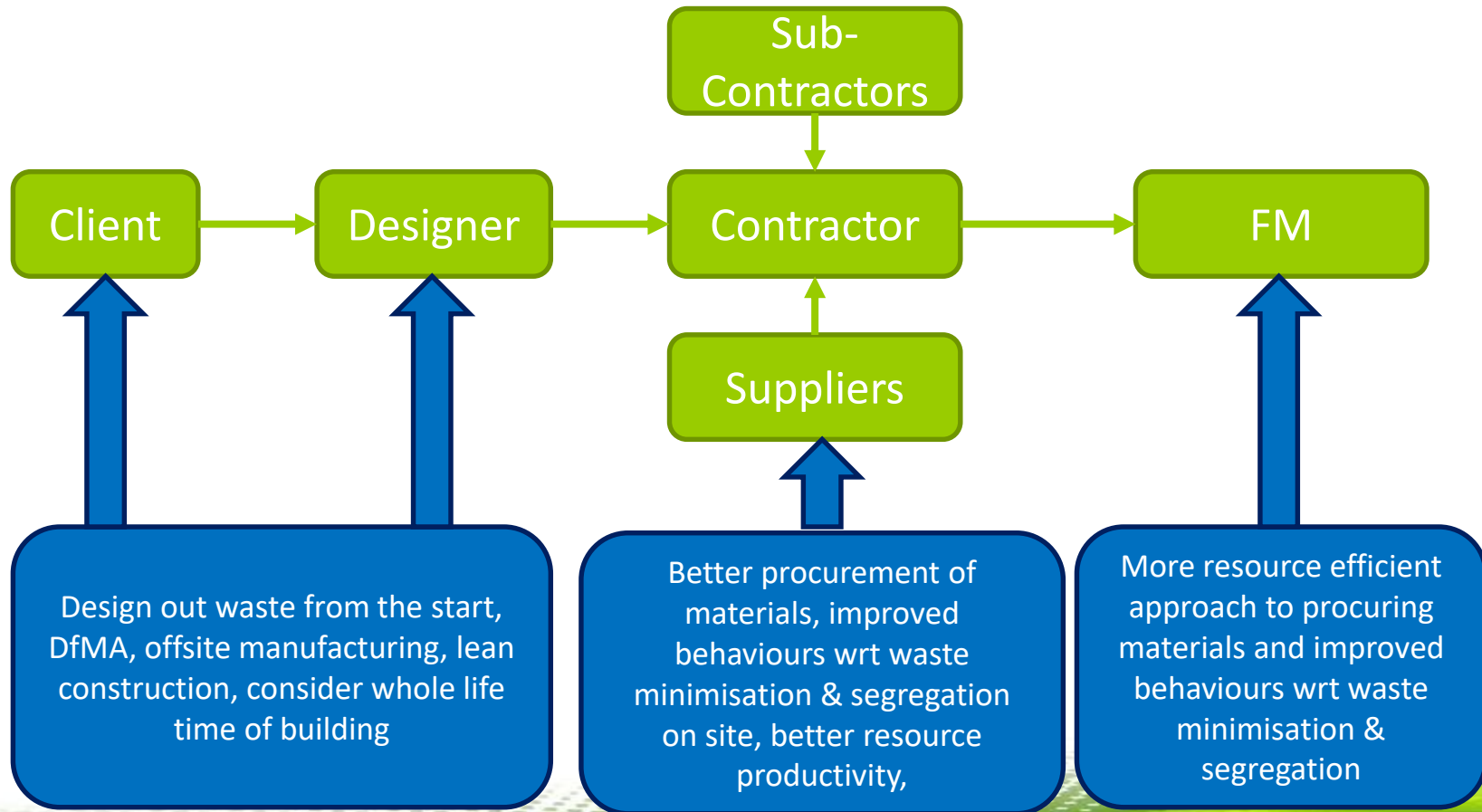
A. Identifying & mapping waste & resource efficiency initiatives

- 1. What existing initiatives are significant / key that should be engaged with? What specific issues do they tackle? Do they provide useful outputs for the sector?*
- 2. Who is participating in them already?*
- 3. What is the additional benefit the School can bring on waste and resource efficiency? i.e. what are the gaps?*
- 4. How should we communicate the work we are doing? What is the outcome we want for this Group in the context of what's happening elsewhere?*

A. Actions

1. **Engage and map existing initiatives on waste and resource efficiency** in the UK, and provide it as both a reference resource to members and a guide to the work this group does. **Led by the School with input from the Working Group.**
 - a) School already in discussions with UKGBC, CECA, CCS, GCB, CIWM and IEMA
2. **A School-led review of the current learning materials on waste and resource efficiency** in the School to assess the need to refresh, develop and/or signpost to consistent content on:
 - a) Waste transfer notes, duty of care, better segregation of materials on site, materials (see B below) and case studies to raise understanding and help in effecting behaviour change;
 - b) **Call to Partners to provide approved and publishable case studies** on waste, resource efficiency and circular economy that can be added to the School.
3. **Engage the Client and Design Community** to contribute and participate more to design out waste (as depicted on the next slide). School to lead with support from Partners.
4. **A survey of School members** to get their input on what resources would be useful to them from the School.

Mapping Intervention Points



B. Priority materials & waste streams

- 1. Which materials / waste streams should be our focus and why?*
- 2. What actions and activities can we undertake as a Group to address the chosen materials / waste streams, e.g. learning materials for Partners, supplies and contractors, industry engagement?...*
- 3. What change do we want, do we expect? E.g. increased recycling rates? A significant move to reuse of materials? A move towards zero single-use plastics?...*
- 4. Where does innovation comes in?*

B. Actions

1. It was agreed that volume / mass should not be the only determinant of priority, rather it should be about material value, reuse and recyclability, etc. **School to engage with academia to understand if and what valuation methods exist** and see how applicable they are to achieving recourse productivity.
2. The materials / wastes that were deemed to be priorities are packaging, plastics, soils and general mixed waste. They require different approaches.
 - a) Soils and general mixed wastes were deemed to be more about education on waste issues in order to change (on site) behaviours: linked to A2 above, **School to review, refresh and/or add content.**
 - b) Packaging requires innovation and change from manufacturers. **With support from Partners, the School to engage manufacturers on their packaging initiatives** to move up the waste hierarchy, but also engage the CCS Spotlight on Plastics and Packaging
 - c) Plastics is clearly an area of focus currently and the view was to signpost to other initiatives such as the CCS at this stage.
3. **School to develop and/or signpost to guidance on 'top tips' for waste minimisation and net zero waste**, covering all aspects and busting entrenched myths.

C. Material exchange portals

- 1. What are your experiences of using them to date? Are they: accessible (internet); reliable in terms 'up-to-dateness'; useful in terms of choice, availability and useful quantity?; cost effective compared to BaU?..*
- 2. Should the School increase awareness and uptake of them and if so what is the best route?*
- 3. How best to engage suppliers and contractors in i) raising their awareness of them and ii) encouraging them to use them?*

C. Actions

1. General view was that there have been lots of attempts at material exchange portals (MEPs) but many have failed for a variety of reasons including duty of care (especially for soils) transparency of provenance of materials, regular and consistent availability of materials at right spec and quality, price vs buying new, distance to collect (incl. cost, time and carbon emissions – 30 miles distance was quoted as a rule of thumb), space and cost of storage...
2. As such MEPs are probably of more use, in terms of buying materials, to smaller, more regional / local contractors, and more relevant to some materials than others. Whereas for Tier 1 contractors they are probably of more use to dispose of excess materials in a more sustainable manner. Two actions led by the School:
 - a) **Map existing MEP initiatives**, such as REF ZWS in Scotland, with input from Partners.
 - b) Include in the learning review / refresh at A2 the need to strengthen the message of looking at this in terms of them being useful **materials**, even if for someone else, rather than **waste** to be disposed of

Annex – Additional Information from the Meeting Slides

School Waste & Resource Efficiency Group Attendee List, 10th June 2019, Canary Wharf Group, London



Name (ordered by surname)	Organisation
James Cadman	Action Sustainability
Ray Collingwood	Kilnbridge
Michael Cross	Willmott Dixon
Sarah-Jane Davies	Sisk
Andy Fulterer	Lendlease
Nathan Gray	Helistrat
Michelle Grisdale	EMCOR
Karen Hampton	Kenny Waste Management
Elliott Harrison	Recycling Lives
Ian Heasman	Taylor Wimpey
Jade Hunt	Kier
Steve Livingstone	Jackson Civils
Shaun McCarthy	Action Sustainability
Eugene Meehan	O'Neill & Brennan
Julia Messenger	BAM Construct
David Morrell	Marshalls
Matt Nichols	Reconomy
George Pearce	Biffa
Alex Pinnington	Barratt Developments
Leila du Toit	Canary Wharf
Cathal Ward	Bouygues UK

Next Meeting:
Wednesday 25th
September, 10am – 1pm,
Canary Wharf Group,
London

Approach from 1st Meeting

- To divide the work into three ‘horizontal’ sub-groups with representatives from each of the School’s ‘Markets’ working in each subgroup, as below, facilitated by the School.
- This will enable consensus and consistency of approach across the sector for each subgroup topic whilst allowing each Market to make its particular contribution.
- Each subgroup to have its own sub-Chair who ‘reports’ to an overall Group Chair.
- Regular subgroup meetings to progress discrete activities and work, with less frequent All-Group meetings to update and inform the wider Group
- The following slides describe the proposed subgroups, their suggested activities and outputs. These to be refined and agreed by each subgroup.

Mapping & materials				
Procurement & supply chain engagement				
Measurement & Reporting				
	Infrastructure	Homes	Commercial	FM

Proposal for Subgroups

■ Strategic and cross-cutting subgroups:

1. Mapping and materials:

- Map the landscape of activities and initiatives across other (non-School) groups, agree what can be shared, who to engage (see slides 14 & 15), and analyse gaps on where School can add benefit and learning to the Supply Chain;
 - Output: mapping out activities and assessment / proposal of where School can add value
- Consolidate data on priority materials and analyse for what can be done to reduce waste / increase circular economy outcomes;
 - Output: identification of key wastes / materials (see slides 11 & 12), relevant across the School's Markets. Guidance on how to be more efficient and reduce waste
- Review material exchange portals (availability, cost, quality and access) and develop proposal for increased awareness and uptake of them;
 - Output: Guidance to supply chain on which material exchange portals exist, where and how to get value from them
- Engage stakeholders as appropriate

Some of the Initiatives...

- CCS Spotlight on Plastic Packaging
- UKGBC Circular economy guidance for construction clients & ZWS Designing Out Construction Waste A guide for project design teams
- CECA Env. Cttee & Env. Agency working group on plastics
- ICE's Circular Economy Panel
- UK Plastics Pact



Priority Materials/ Waste streams

- **Soils:** Topsoil & Subsoil (develop understanding of why and when soil is classified as a waste and then develop guidance for it)
- **Aggregates and concrete**
- **Metals**
- **Glass**
- **Plastics**, incl. protection & and single use plastics such as packaging
- **Timber** and wood waste incl. pallets, cable drums
- **Plasterboard**
- **Haz waste** such as paint
- **Mixed Waste** – does this have a definition, or is it a catch all?
- **Others:** carpets, furniture, electronic
- **Unused / out of spec / obsolete materials and products**

Construction Waste streams

Year	EWC-STAT co	EWC-STAT description	Hazardous/Non-hazardous split	Construction	% of total
2016	Total	*Total waste generation	Total	136,196,492	
2016	12.1	Mineral waste from construction & demolition	Total	63,525,298	46.64%
2016	12.6	Soils	Total	58,234,031	42.76%
2016	12.7	Dredging spoils	Total	11,245,716	8.26%
2016	06.1	Metallic wastes, ferrous	Total	1,129,527	0.83%
2016	06.3	Metallic wastes, mixed	Total	688,085	0.51%
2016	07.5	Wood wastes	Total	664,644	0.49%
2016	06.2	Metallic wastes, non-ferrous	Total	298,915	0.22%
2016	07.1	Glass wastes	Total	129,165	0.09%
2016	10.1	Household & similar wastes	Total	71,296	0.05%
2016	07.4	Plastic wastes	Total	67,445	0.05%

- Published in March 2019 and based on 2016 input data, this shows the top 10 construction waste streams by mass. They account for 99.9% of all construction waste, of which 99.4% is non-hazardous. It clearly shows that:
 - Mineral wastes (typically bricks, stone and road planings that are converted into usable aggregates), soils and dredging are the primary categories by tonnage
 - Metallic wastes are next most significant category
 - Plastics comes in at 10th with 67,445 tonnes, whilst 'Mixed and undifferentiated material' come in 17th with 3,562 tonnes

[UK_Statistics_on_Waste_dataset_Mar_2019_rev_FINAL](#)

<https://www.gov.uk/government/statistical-data-sets/env23-uk-waste-data-and-management> and

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/784263/UK_Statistics_on_Waste_statistical_notice_March_2019_rev_FINAL.pdf page 14

Construction Waste: Plastics

From the CCS Spotlight on Plastic

- The construction industry consumes **23%** of all plastic produced in the UK.
- Piping and conduit are the largest uses of polymers in construction, and consume around **35%** of production
- Around **25%** of construction packaging waste by weight is plastic.
- The construction industry generates an estimated **50,000 tonnes** of plastic packaging waste every year.
- In the construction industry, **60%** of all skipped material by weight is packaging waste.
- The construction industry produces **three times** more packaging waste than all UK households combined.

Material Exchanges

Example: Resource Efficient Scotland

The screenshot displays the homepage of the Resource Efficient Scotland website. At the top left is the logo for Resource Efficient Scotland. The navigation menu includes links for Home, Register, Materials, Hints and Tips, and Contact. On the right, there are buttons for 'Create a Post' and 'Sign In'. The main banner features a colorful illustration of a construction site with workers, a truck, and buildings. Below the banner is a search bar with two radio buttons: 'I am looking for...' (selected) and 'I have extra of...'. The search criteria include 'Material: All Materials' and 'in: City or Postcode', with a 'Search' button. The main heading is 'Construction Material Exchange' with the subtitle 'Search for surplus materials in your area'. Three main action buttons are provided: 'Materials for re-use' (with a wheelbarrow icon), 'Find a re-use match' (with a handshake icon), and 'Hints & tips' (with an information icon).

Material Exchanges

Example: Excess Materials Exchange (NL)

