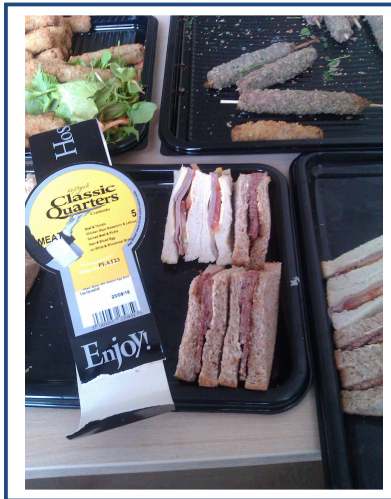# Green Impact Project Plus
SEED food waste project

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Acknowledgements

"Food encourages more people to go and creates a focal point"
Planning and Environmental Management student

"People come for a mind full of knowledge not a belly full of food"
Geography student

Green Impact Project Plus – SEED food waste project

1.0 Introduction

The project aimed to establish ways of reducing food waste from University events and distributing leftover food where necessary.

The objectives were to:

- pilot a method of accruing data about the types and amount of food wasted at events via a **Staff Food Waste Survey** over a period of ten months across the School of Environment, Education and Development (SEED).

- use this data to establish the extent of food waste and render this in visual form

- conduct a University wide **Student Food Waste Survey** to establish the views of students (as stakeholders) on the provision of food at events and possible solutions to reducing food waste.

- consult with staff, relevant stakeholders to explore ways of reducing food waste and better distribution of leftover food.

1.1 How did the project develop?

We previously worked with two Green Impact Project Assistants and they were keen to look at a topic covered in the Green Impact workbook in more depth. At the time there was (and still is) often leftover food where food is provided at staff and student events. The staff survey they designed (to be completed by staff after an event) was shorter than the one for this project – with 7 questions and they suggested the survey be accessed by a Quick Response code (QR) code, so enabling quick access via a smart phone. See **Appendix One** for details. The staff survey for this project developed from the students' original survey. They also produced a poster to advertise the survey. The original premise of their idea was that only by collecting data on actual food wastage from events could decisions be made regarding how to reduce this waste.

1.2 Further student involvement

The PhD student we have worked with had opportunities to:

- appraise the method of data collection and to suggest ways of improving this;
- analyse data collected from the Student Food Waste Survey;
- research potential avenues for distributing leftover food.

In addition, she designed the **Student Food Waste survey** and a poster to advertise this.

1.3 Contribution to the University's environmental sustainability and social responsibility agendas

The project highlighted the issue of food waste generated at University events and how to tackle it. It links to existing policies to reduce waste at the University and to a broader discussion of sustainability issues relating to food – for example production, transportation, energy, disposal and waste issues. There is an emerging trend towards more sustainable practices relating to food at the University – for example the use of Manchester Veg People as a supplier for Food on Campus, student volunteering projects with Incredible Edible Manchester and the ongoing drive to reduce food waste in student catered halls.

The project aimed to give insight into workplace practices and the opportunity to gain awareness of the need to balance the positive benefits of providing food and the factors that impact negatively from a sustainability viewpoint that are often unseen or not acknowledged.

1.4 Why is it important from a sustainability viewpoint to look at the topic of food waste?

Avoidable food waste has detrimental effects economically, environmentally and socially. Financial costs for an organisation are incurred through the ordering of food and organisation at the event (in terms of staff time), purchase of food and disposal of food waste and packaging through payment of landfill taxes. The negative environmental impacts include wastage of the food itself plus resources used in production which include energy, water, fertilisers, land set aside for food production and energy used to transport and refrigerate food. Meat and fish products have a particularly high resource use. When food waste is landfilled, decomposition releases methane, a gas more potent than carbon dioxide in its contribution to climate change. Resources are also used in the production of all food packaging.

The image below illustrates the most and least preferable options in terms of material usage associated with food production (WRAP, 2016). [1] As can be seen disposal of food waste via landfill and via

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[1] http://www.wrap.org.uk/

Food and drink material hierarchy

Most preferable option

Prevention
- Waste of raw materials, ingredients and product arising is reduced – measured in overall reduction in waste.

Optimisation
- Redistribution to people.
- Sent to animal feed

Recycling
- Waste sent to anaerobic digestion; or
- Waste composted

Recovery
- Incineration of waste with energy recovery.

Disposal
- Waste incinerated without energy recovery.
- Waste sent to landfill.
- Waste ingredient/product going to sewer.

Prevention / Reduction

Waste

Least preferable option

2

the sewer (in the case of drinks discarded) are the least efficient ways of using food and are currently the ways in which food waste from events is discarded at the University. Wastage arising from an organisation's working practices has an additional adverse social impact on reputation due to the negative connotation of a seemingly responsible organisation being wasteful. Food waste has a particularly strong visual impact and its occurrence can be seen as morally wrong when people locally and internationally do not always have access to food.

2. Methodology

Details of the methodology of the project are outlined below.

2.1 SEED staff food waste survey

This was designed to be completed by staff after an event in SEED where food had been provided. Access to the survey was via a web link or a QR code. The survey was open for 10 months (May 2015 to February 2016 inclusive). Over the survey period the Head of School (HoS) sent two emails informing staff about the project and invited staff to complete the survey, where appropriate. Managers were also asked to inform their staff, via team meetings, about the purpose of the survey and to complete where appropriate. The survey poster was also on display on digital installations in Ellen Wilkinson and Arthur Lewis Buildings. See **Appendix Two** for survey questions.

2.2 Student food waste survey

This was designed to be completed by all students in the university – again after they have attended an event where food has been provided and accessed via a web link or a QR code. The survey was open for 10 months (May 2015 to February 2016 inclusive). The survey was promoted via hardcopy posters, poster display on digital installations, SEED student newsletters and by the University Environmental Sustainability team. In order to encourage participation, each month, a £20 High Street voucher was given to a randomly chosen student who completed the survey. See **Appendix Three** for survey questions.

2.3 Qualitative interviews

Five interviews were conducted for the research project. The following were interviewed:

Seven PSS staff in SEED who purchase food for events (March to May 2015)
One FoodOnCampus café worker in Café Devas, Ellen Wilkinson Building (April 2015)

2.4 Talking with staff who purchase food for events with the aim of capturing information that cannot be sourced via the staff survey

We looked at three broad areas – the reason for provision of food at events, the factors that contribute to food being wasted and their recommendations to reduce food waste. We talked with seven PSS staff with a

rationale that they are familiar with the processes and decision making regarding food provision and are therefore a good source of experience on the practicalities and realities of this task. They are also the 'gatekeepers' acting as intermediaries between staff requesting food for an event and the catering suppliers. We thought it important to capture the thoughts and recommendations surrounding food provision at this 'grassroots' level. Interview questions were emailed to staff prior to their interview. It was explained that the questions would form the basis of the interview, rather than having to be precisely answered. One member of staff was interviewed on their own whilst the other six staff were interviewed in pairs. See **Appendix Four** for interview questions.

2.5 Talking with a FoodOnCampus café worker (Café Devas, Ellen Wilkinson Building)

We thought it important to gain the views and knowledge of a café worker as it was assumed that the provision of food at a café was subject to unpredictability surrounding how much food to source each day with a potential for possibly high wastage. See **Appendix Five** for interview questions. The interview was conducted in April 2015 and the questions formed the basis of the interview.

2.6 Other student involvement in the project

In November 2015 the PhD student we worked with introduced us to two student members of Manchester Universities Society for Catholic Chaplaincies (MUSCC) who operate from the University Catholic Chaplaincy. The charity organise the distribution of leftover catered food for the homeless. They submitted a proposal detailing the logistics and practicalities of arranging the collection of leftover food from events in SEED. This proposal was submitted to the Environmental Sustainability team for consideration. See **Appendix Six** for the (MUSCC) proposal.

In October 2016 we were approached by a M.Sc. student who was researching for her dissertation on the topic of the circular economy. A definition of this concept is "... an alternative to a traditional linear economy (make, use, dispose) in which we keep resources in use for as long as possible, extract the maximum value from them whilst in use, then recover and regenerate products and materials at the end of each service life" (WRAP, 2016).[2] She was interested in whether this concept could be applied in relation to food purchased and disposed of at the university and information we gained from her is referred to later. It was hoped that these contributions plus data from the staff and student surveys would provide a fuller picture of how food waste from University events may be reduced.

3.0 Results

The results of the various strands of the project are detailed below.

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[2] http://www.wrap.org.uk/

3.1 SEED staff food waste survey – May 2015 to February 2016

9 staff completed the survey with completion between 7th May and 11th June 2015. 41 staff looked at survey but did not complete it. Results for **Questions 1 to 3** are shown in the table below:

Q1 - Which event was the food provided for?	Q2 - Why was food provided?	Q3 – Which supplier did you use?
SEED Teaching & Learning (T & L) Committee	Working lunch - encourages attendance	Supplier A
Final Year Undergraduate Dissertation Event	Event took place over lunch time	Supplier B
Undergraduate 1st Year end of year meeting	Lunch time meeting, end of year celebration	Supplier B
International Association of Teachers of English as a Foreign Language (IATEFL) pre-Conference event organised with Manchester Institute of Education (MIE)	This was an all-day event and people have travelled from all over the world and don't necessarily know where to get food locally	Can't remember
Secondary Assessment Centre	All day event with mentors from partner schools attending to interview PGCE candidates. Lunch provided	Supplier B
Postgraduate Research Conference	Food is provided as this is an all-day event	Supplier B
For Programme Directors of Doc. Ed & Child Psychology courses in England	Unknown	Supplier C
Economic & Social Research Council (ESRC) CASE Workshop (12.00 to 14.45)	Unknown	Supplier C
Meeting with external travel agent	External travel agents used for our fieldwork events attended the university for a business meeting and due to them having to travel food was provided and meeting took place as a working lunch	Supplier B

Table 1 – Type of event, reason for food provision and supplier

Food was provided for a variety of events with two events being solely for undergraduate students, one for postgraduate research students, one solely for staff and four events being hosted for external attendees. The majority of events were catered for using an external supplier, with only one event being catered for by the University's own catering supplier. At four events, where the reason for food being provided was given, the event was over a lunch time. Of these, at one event, food was provided to encourage staff to attend and at another food was offered as 'payment' for attending the university on business. Likewise, on two other occasions food was offered as hospitality and 'payment' for external attendees. At three events (two for external attendees and one for research students) food was provided because the event lasted the whole day.

Question 4 asked how many delegates attended the event and **Question 5** asked how many delegates were expected to attend the event. These questions were asked to ascertain whether a failure for expected delegates to attend an event may lead to food wastage. The results are shown below in **Tables 2 and 3**.

Q 4. How many delegates attended the event?		
Number of attendees	**Response frequency**	**Response %**
Less than 5 people	1	11%
5 to 10 people	0	0%
11 to 20 people	4	44%
21 to 30 people	0	0%
More than 30 people	4	44%

Table 2– Number of delegates attending the event

Q5. How many delegates were expected to attend the event?		
Number of expected attendees	**Response frequency**	**Response %**
Less than 5 people	1	11%
5 to 10 people	0	0%
11 to 20 people	4	44%
21 to 30 people	0	0%
More than 30 people	4	44%

Table 3 – Number of delegates expected to attend the event

The responses show that equal numbers of events (8 in total) were for events of between 11 to 20 people and more than 30 people. It can be seen that the responses to Questions 4 and 5 are identical. It could be assumed that exactly the same number of delegates attended that were expected. However because

respondents could only choose a range of attendees (attending and expected) it is not possible to ascertain whether absolute numbers attended were actually less than expected. The figures could be particularly misleading the larger the group size (i.e. in response 'More than 30 people'). A more accurate result would have resulted from asking how many did you order for and how many arrived with respondents asked to give single figures. This would also have captured information about whether respondents under or over order food dependent on expected attendees.

Question 6 asked respondents to give an approximation of the percentage of food and drink leftover after an event. **Figure 1** shows this result.
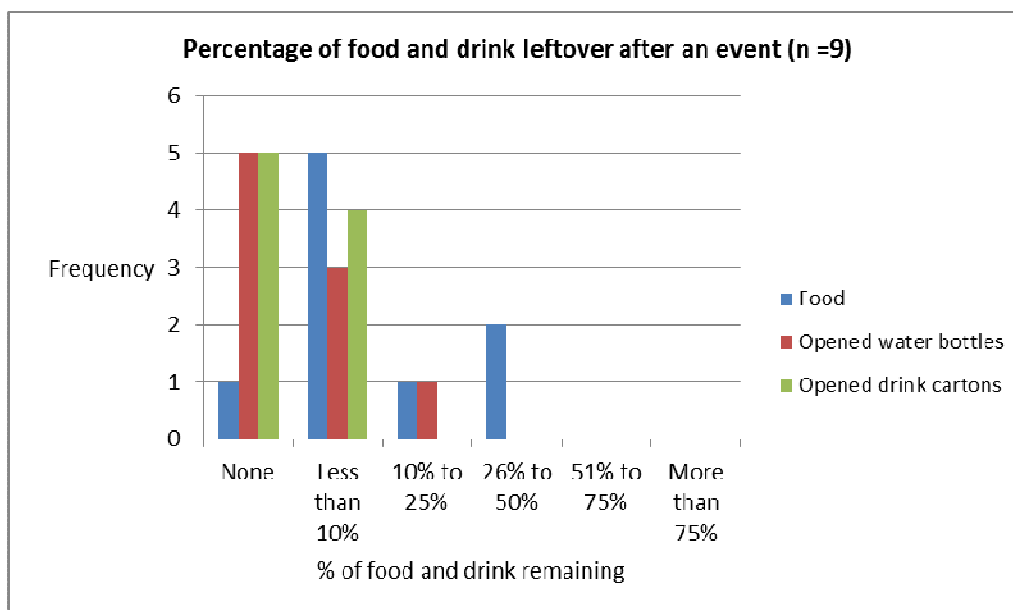
Figure 1 – Percentage of food and drink leftover after an event

With regard to leftover food, five events had less than 10% of food remaining and one event had no food remaining. This totals 6 events. When looking at higher percentages of food wastage, one event had between 10 and 25% remaining and two events had between 26 and 50% wastage. This totals 3 events. No events had above 50% food wastage. The two events with between 26 to 50% wastage had an event size of between 11 to 20 delegates and used the same external caterer. The other two events of the same size had less than 10% food wastage and at one event food was provided by the University's own catering supplier and at the other by an alternative external supplier.

Opened water bottles and drink cartons were not left at 5 events. At 3 events less than 10% of opened water bottles were left and at 4 events opened drink cartons were left. At one event between 10 and 25% of opened water bottles were left. This was an event that catered for more than 30 delegates.

When looking at whether particular suppliers generated more food waste than others the results are seen

below:

	Percentage of food remaining					
	None	< 10%	10% to 25%	26% to 50%	51% to 75%	> 75%
Event 1		Supplier A				
Event 2		Supplier B				
Event 3		Supplier B				
Event 4			Not given			
Event 5		Supplier B				
Event 6	Supplier B					
Event 7				Supplier C		
Event 8				Supplier C		
Event 9		Supplier B				

Table 4 – Percentage of food remaining by supplier

It can be seen that events catered for by Supplier A and B had low percentages of food remaining (or none at one event). The two events that used Supplier C had higher amounts of food left.

Question 7 asked what type of food was left. This was asked to ascertain whether there are particular types of food that are frequently not eaten. The results are shown in **Figure 2**.
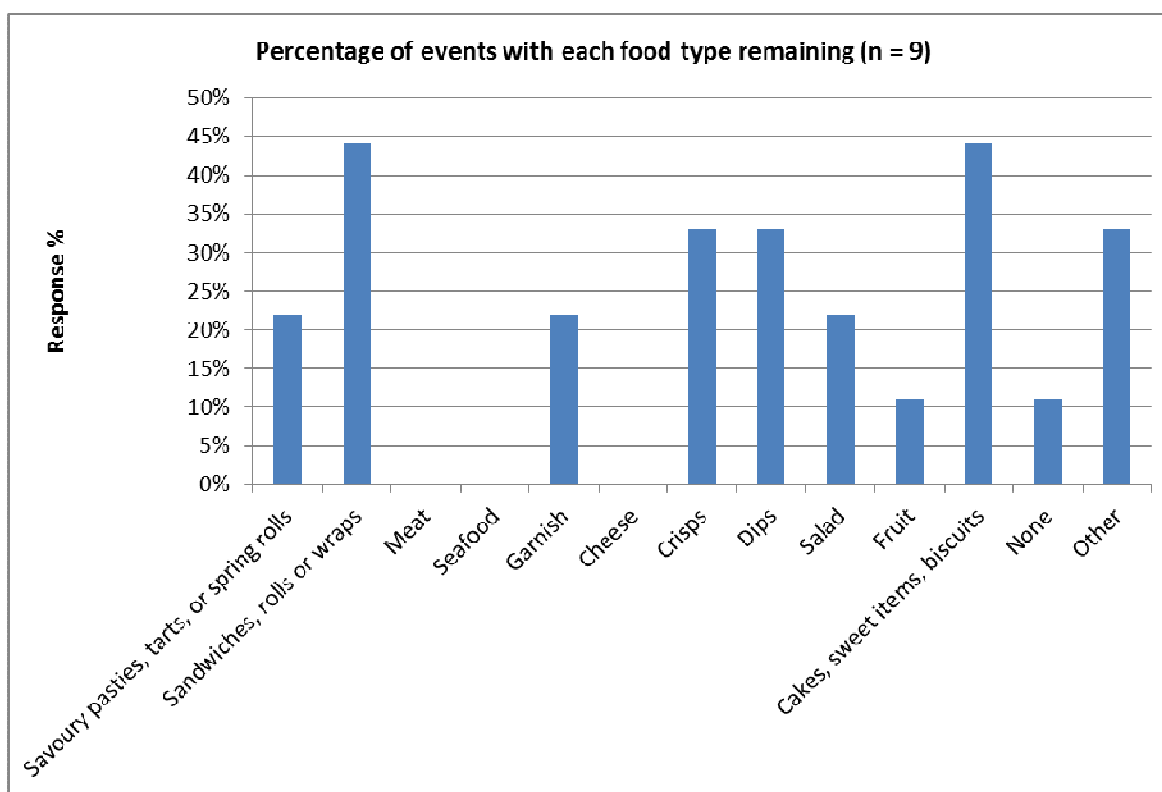

Figure 2: Percentage of events with each food type remaining

8

'Other' = nuts, small milk cartons, a plated lunch (mixed items)

Figure 2 shows that the most frequently left types of food (in 4 of 9 events) were sandwiches/rolls/ wraps and cakes/sweet items/biscuits. The type of food remaining least often was fruit (1of 9 events) but it is not certain if fruit was always provided. At one event no food was left. Meat, seafood and cheese were not left at any event but this was probably because these food types would not be provided on their own. They may have been included within the sandwiches. When looking at event type and the type of food left, at the three student events, nuts were left at one event, dips at another and no food at the remaining student event.

Finally **Question 8** asked respondents to leave comments related to their particular event or in relation to food waste from events generally. The following comments were made:

> "We recycled as much as we could, but it would be useful to know local places we could ring to deliver unfinished food"

> **"**Although food and drink was left from the meeting this was then eaten by colleagues so nothing was wasted"

> "Left over full cartons juice, water wrapped biscuits, use at other meetings."

3.2 Consultation with staff

The following section includes interviews conducted with seven PSS staff in SEED about their experiences of purchasing food for University events. This is followed by an interview with a FoodOnCampus café worker at Café Devas, Ellen Wilkinson Building.
The findings are as follows:

3.2.1 Reasons for provision of food at events

Several reasons were given for why staff thought food is provided at University events. The reason most frequently given was in regard to the University's reputation as perceived by external stakeholders. There is concern over the university's image – the hosts of an event do not want to appear inhospitable and food provision is seen as welcoming. A specific example includes providing hospitality for external academics attending exam boards/events – particularly if these are day long events. Alongside this, food provision is also seen as 'payment'. For example, food is provided at all day meetings/student interviews conducted by external interviewers. Interviewers are not paid for their time and therefore food is seen as 'payment' and a gesture of goodwill. Another example relates to students. Tea, coffee, biscuits and bottled water are provided at assessment days for incoming students to welcome candidates and give a good impression of the university.

The second reason relates to the timing of events. If an internal staff meeting is over lunch-time,

there is an 'obligation' to provide food and a perceived expectation from attendees that food will be provided. The timing of meetings over lunch time is often because the meeting 'has to fit in with teaching obligations' for academic staff. Another example given at the end of the day is where meetings are held from 17:00 to 20:00 to allow teachers to attend and because of this particular timing food is provided. Another reason, mentioned as frequently as timing is the belief that provision of food encourages attendance by staff and additionally encourages students to attend events in Welcome week and Student Experience events. The final reason given that it is common practice to provide food at events - "Because I am asked to" and "It is historical – I have always done it"

3.2.2 Observations from staff as to why food may be left over

There were a range of reasons given. One relates to the predominant reason why food is provided – to provide hospitality (and consequently enhance reputation). There can be an anxiety over not having enough food – and associated embarrassment – which can tend towards over-ordering. This is particularly the case with an event where external stakeholders are providing a service – for example, helping with interviews, but this may be balanced by the fact that they are more likely to attend. Over anxiety regarding having too little food happens more frequently with staff who do not hold events regularly or are inexperienced in ordering food.

The findings suggest that there appear to be two broadly different types of meetings/events. Firstly, one where there is an obligation to attend or where external stakeholders are providing the university a service and secondly where there is little obligation such as networking, information giving and receiving type events. There is an indication that with the latter more food is wasted due to the unpredictability of whether staff or students will attend, particularly if the event is free. In essence, there is more incentive to turn up if people have paid or there is a definite requirement for them to attend. There can sometimes be a tendency to guess the numbers of attendees at events/meetings. Often mentioned was the difficulty in knowing exactly how many people will attend events. People do not always confirm their attendance at meetings or may not attend on the day despite confirming. For example -

"I can order catering for 20 people and only 10-15 would arrive, even though they have confirmed their attendance with me".

Another reason concerns cultural/social factors. It was suggested that it is very 'socially acceptable' to waste food – with the provision of Buy One Get One Free (BOGOF) promotions etc. in supermarkets leading to over-consumption and resultant waste. Also, with the provision of food waste caddies by Councils there is a presumption that waste food will be recycled so that wastage of food is 'legitimised'. There has been a culture of Managers freely asking for food to be provided – but this may be changing now. Two staff commented that social factors impact on the actual event. For example, there can be a certain

social etiquette happening at a buffet type provision – people choose smaller portions as they do not like to appear greedy. There is an expectation that if food is provided at the venue delegates are more likely to mix – but this is not always borne out. Another observation relates to food provided at 'working lunches'. Whilst food is traditionally associated in a positive way with socializing, in a work context where staff are expected to work, network/socialize and eat at the same time, it was suggested that it is not always possible or desirable to multi task in that way. Something has to give and that often takes the form of uneaten food.

If there is a lack of flexibility with what food can be ordered and a requirement to order a minimum number this leads to over-ordering. One supplier mentioned in all interviews was said to have an 'overly complicated' menu that leads to over- ordering. This supplier is now generally not used. In addition, the inflexibility of a conference 'day delegate rate' where cakes and pastries are automatically provided with coffee and tea, despite lunch also being provided, can lead to the over-supply of food. An added disincentive is that the University is often tied contractually to this arrangement, so that even if a request is made to remove the cakes and pastries, the University is still charged for them. Lastly, less food is left if portions are individually plated and more food is wasted at larger events – generally due to lack of reliability of numbers attending.

Another reason given is that there will be a range of priorities at events, with food provision and any resultant waste being only one priority and there is sometimes a dis-connect between staff requesting food to enhance the event and staff tasked with clearing away uneaten food. Staff interviewed suggested that academic staff have priorities surrounding teaching and care of delegates and are less concerned if food may be wasted and that they are distanced from the realities of food waste as they do not usually clear up after meetings.

Food wastage occurring due to the actual food provided was suggested as another reason. Examples given include - if similar types of food are provided there is likely to be food left over and if the food is of poor quality it will be left. Sandwiches are frequently not covered up at the event and go stale. The final reasons given are totally unpredictable – that bad weather often means that less people attend events and that people may not always want to eat.

3.2.3 Why is it important to reduce food waste at events?

All staff interviewed believed there is a moral obligation to reduce food waste – i.e. as a general principle it is important not to waste food and three staff mentioned that it is immoral to waste food whilst there are people without food. Also mentioned by all staff was the importance to reduce unnecessary financial costs for the University. Two staff suggested that they make food purchasing decisions at work similar to how

they would at home – that is they thought it important to be accountable and not waste money. They thought that other staff – particularly those who do not see the actual left-over food may be more blasé. They suggest some staff may have a lack of accountability – 'it's the universities money' with a lack of concern about financial costs.

3.2.4 The problem with water

Bottled water is commonly supplied for students attending assessment days at the University. The reason for this provision is that some candidates may not drink tea or coffee. It was suggested that it would give a negative impression to say 'we don't provide water' or 'bring your own'. Other staff commented on the difficulty of how to provide water at both staff and student events as they felt that the present plumbed in water coolers were very sparsely located and looked unhygienic as they were rarely cleaned. There was also the problem of locating and cleaning glasses.   Consequently, although very aware of the financial and environmental costs of continually purchasing bottled water, this was common practice at the time when staff were interviewed. They were requesting a commitment to the expansion of useable plumbed in water coolers to provide the opportunity to have palatable and accessible drinking water for events.

3.2.5 How do staff limit the amount of food wasted?

It was suggested that it requires experience on behalf of the person ordering food to take decisions to decrease the likelihood of food being wasted. They therefore provide an important 'informal monitoring' role. For example, allowances are made on order sizes depending on the supplier used and two staff suggested they will 'train' a new member of staff regarding this. The following demonstrates the steps the interviewed staff currently take to reduce food waste:

Pay attention to the numbers

* Consider the numbers at the event - reductions to the order are made unless there are small numbers (say 5 to 9) where exact numbers are ordered. The larger the event, the larger the proportion not ordered for. Two staff suggested reductions are made as follows - buffet for 20, order for 17, buffet for 100, order for 80.

* Consider the type of event - reductions to the order are made where there is uncertainty over numbers (e.g. exam board meetings)

* Try to be as specific as possible with numbers – be pro-active in advising that visitors confirm their attendance at meetings for 'catering purposes'.

* Have a supply of food vouchers to be used in FoodOnCampus cafes as a 'back up' in case more numbers than expected attend an event.

Consider the type of food offered

*Do not order types of food that by experience are not eaten – for example, salad, large cakes that have to be cut up, cream, bowls of fruit, 'messy food' (e.g. chicken drum sticks) and food that is difficult to eat.

*Only put additional crisps out when the crisp bowls are empty (rather than emptying all packets into all the bowls).

*Order more 'savories' (finger food) than sandwiches

*Order food that is easier to eat – for example, small individual cakes, fruit/cheese on sticks

Consider no food provision or provide alternatives

*If meetings are < 5 – food is generally not provided.

*Use food vouchers to be used in FoodOnCampus cafes where only one or two external interviewers attend assessment days.

3.2.6 What do staff do with leftover food?

Staff and students working nearby are advised that there is food available (in person or via email). Two people interviewed said they have a reluctance to distribute to/or make an active effort to contact students regarding leftover food due to health and safety concerns and a sense of responsibility and duty of care towards students. Food will also be thrown away with general waste.

3.3 Interview with a FoodOnCampus café worker in Café Devas, Ellen Wilkinson Building

We talked with a FoodOnCampus café worker to gain his experience of providing and ordering food. We found that there are two factors operating that influence supply and food waste, which run concurrently. Firstly, the cafe worker observes what sells well and is popular. This is a judgement call and is dependent on factors such as the weather, trends relating to what types of food are 'fashionable' (which can depend on advertising/TV programmes) and the likelihood that the cafe will be busy. For example the cafe is usually busier in Semester One and over exam periods. He suggests that Semester Two may be quieter due to students becoming aware of alternative venues and supermarkets, wanting a break from the building or a possible shortage of money. It is the lone worker's (or the Manager's if there is a team in a cafe) responsibility, based on experience, to suggest improvements to the Central Purchasing Unit (CPU) as to what food to sell. He also advises that it would be useful for staff in the building to advise him (or CPU) of

when there are events on in the building that increase the likelihood of the cafe being busy.

The second factor relates to an established audit system that has been in place for eight years.   For example, selling trends are monitored via computerised tills and food wastage sheets are completed daily by staff to monitor food that is discarded in the bin. This is food that is not packaged and includes cooked baked potatoes and soup. Details include the food item, description (e.g. flavour of soup), quantity and reason for disposal. Data from all FoodOnCampus cafes is collated centrally. It was advised that consequently adjustments are then made to the food that is sent from the CPU to individual cafes. There is a responsibility on the cafe worker in that the amount of food waste (and type) may be questioned. However, there are no targets set to reduce waste.

When the cafe closes, unsold sandwiches and packaged items (within sell by date) are taken to other cafes with longer opening hours or to the Learning Commons building where a staff member at the CPU has set up a collection point for a local charity who distribute the food. When asked whether he thought it was important to reduce food waste he advised that he thought it was extremely important. He was concerned with the contrast between the numbers of homeless people near to the campus and the surplus of food at the University.

3.4 Student food waste survey – May 2015 to February 2016

38 students completed the survey with completion between 7th May 2015 and 2nd February 2016.

The study route for student respondents at the university is shown in **Figure 3.**
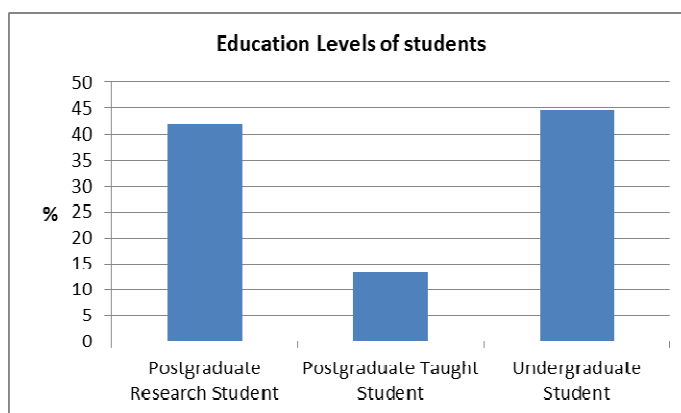

Figure 3 – Education level of participating students (n = 38)

The largest number of respondents were undergraduate students (17), followed closely by postgraduate research students (16). The lowest number of respondents were postgraduate taught students (5). It is

encouraging that research students have participated because frequently University sustainability initiatives are geared towards undergraduate students.

Question 2 asked what discipline the students were studying. The results show that the largest number of respondents study in the Faculty of Humanities – Geography (6), Manchester Institute of Education (6) International Development and Personnel Management (7), Architecture (3) English (1), Finance (1) and Planning and Environmental Management (2) respondents. The following disciplines all had one student who responded – Pharmacy, Biomedical Sciences, Nursing, Biotechnology and Enterprise, Engineering, Environmental Science, Biology, Physical Science, Physics, Pharmacology, Chemical Engineering and Mechanical Engineering. The range of students per faculty is shown in **Figure 4.**

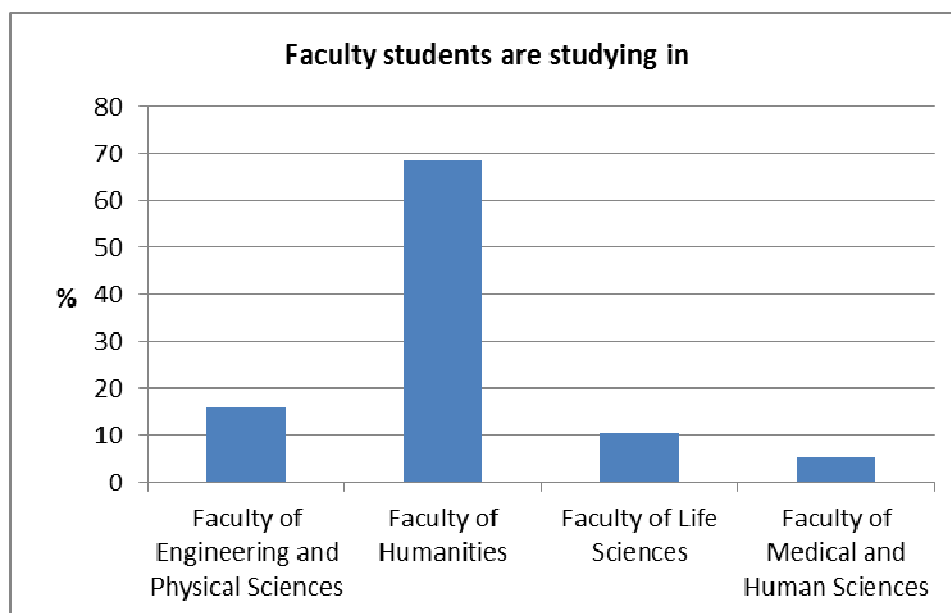*Figure 4 – The Faculty participating students are studying in* (n = 38)

NB – with the organisational re-structure FLS has been merged within two faculties. The new structure comprises Faculty of Biology, Medicine & Health, Faculty of Humanities and Faculty of Science & Engineering.

Question 4 asked how often students attended University events where food was provided. These results are shown below in **Figure 5.**
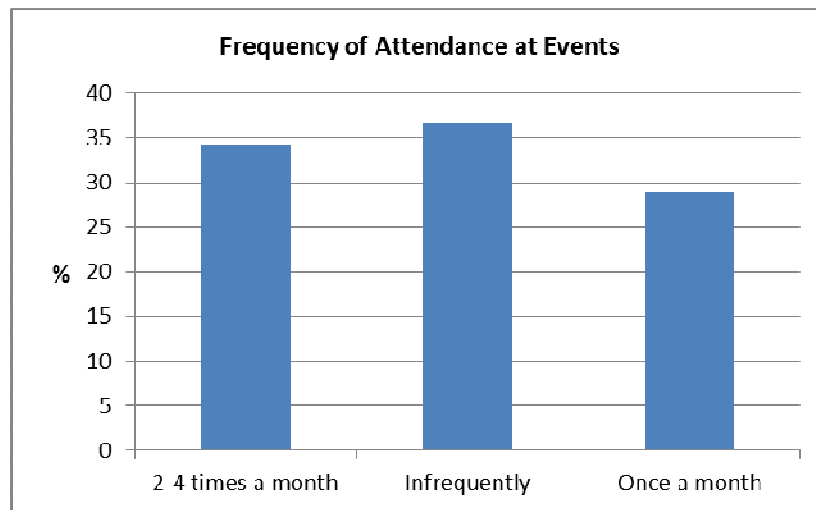
Figure 5 – Frequency that participating students attend events with food provided (n = 38)

It can be seen that a majority of students attended events with a frequency of once a month or 2-4 times a month (63%). Just over a third of students attended events infrequently.

Figure 6 shows the results when students were asked to rate how important they thought the provision of food at University events was on a scale from not important to very important.
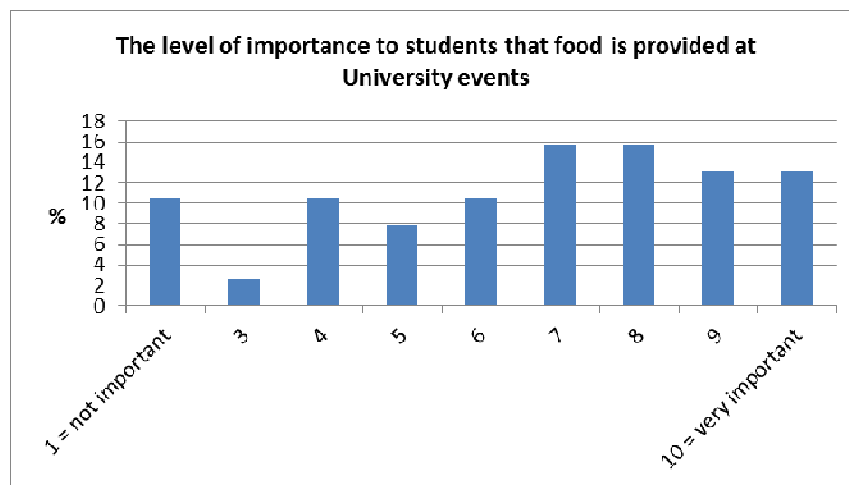
Figure 6 – The level of importance to students that food is provided at University events
(n = 38)

The results show that students' responses are weighted towards food provision at University events being more important to them than less important.

In Question 6 students were asked, based on their response to the above, why they thought food provision is important/not important. The results show that when considering the importance of food provision there were several reasons that emerged which can be categorised.

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Firstly, the predominant reason was relating to attendance – food provision was seen to increase attendance at events. For example,

> "There is always better attendance - means that the message and aims of the meeting are better met".

In some instances a caveat was given that whilst important, students should attend events irrespective of food provision. Catering was seen to raise the profile of an event, making it stand out amongst other events competing for students' attention and attendance. One student commented that food provision "could be an advertisement for healthy food".

One other reason was mentioned frequently and relates to attendance. This is social – food provision was seen to facilitate networking and make students feel more at ease. One student wrote:

> "Depends on the event, but it's a good opportunity to talk with others in a more relaxed way. Sometimes events are too formal, and being around the food allows a different interaction."

It was also seen as an opportunity to exchange experiences and knowledge after an event as it was suggested that students are more likely to stay if there is food. Five students commented on the physiological benefits of food, such as helping to improve concentration, satisfying hunger or thirst after a long meeting and that coffee and tea help people to focus for longer.

Another reason less frequently cited relates to the time of the event in the day. Food provision was seen as important if the event coincided with the time food would generally be eaten - over a lunch time or in the evening. It was suggested that if staff or students were hungry it would detract from the quality of the event. Two students mentioned the convenience of having food provided on days where time was limited. One wrote -

> "Events take time to get to (in time) and attend. If I then still have to organise my own food that would be an even bigger stretch."

Two students mentioned the role of food as reward or payment. One wrote that international students see where (in part) their fees are used. One research student was more direct -

> "For instance, when helping out the department on an issue, it is better to have some food as an incentive to attend a relevant meeting. Otherwise, as a PGR student, it is like giving time for free, which I would be less likely to do."

The duration of the event was seen as a deciding factor with regard to the importance given to food provision. All students (who mentioned the length of events) suggested that with shorter events (generally

< three hours) food provision was less or not important. One interesting quote relates to the length of events and the status given to food as a means to impress -

> *"Depends on the length of event. It's nice but not essential (especially for undergrads that the uni doesn't have to impress)"*

Other reasons given for why food provision at University events is not important include comments from students that it is more important for them to learn at University events rather than eat, it is not necessary and often there is too much food provided. One student wrote –

> *"Additionally, there is tremendous food wastage I have witnessed at these events with plates with half eaten food being discarded without a second thought."*

Students were asked, in **Question 7,** which types of food they most prefer to eat at events. This was asked to try and ascertain whether the food provided actually was food that most students, given differences in tastes, would be happy to eat. Students selected three food types. The results are shown in **Figure 7.**
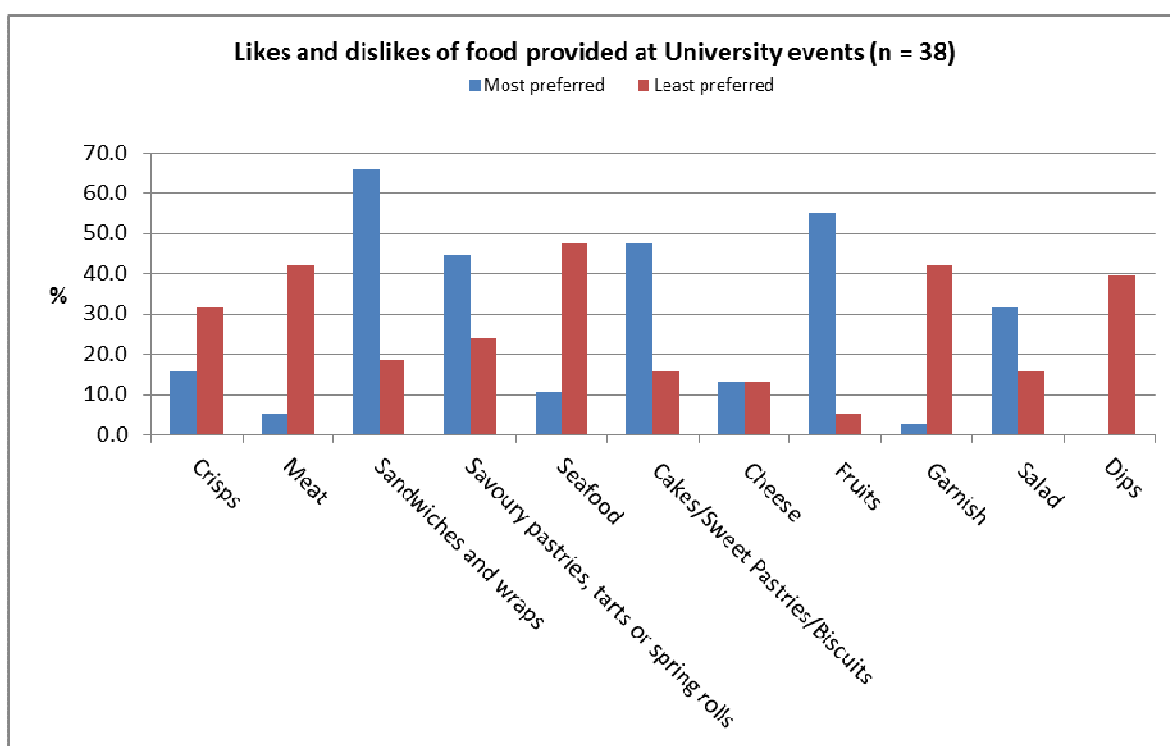
Figure 7 – Participating students' likes and dislikes of food provided at University events

It can be seen that the most preferred type of food is sandwiches/wraps with approximately two thirds of students giving this response. Fruit is preferred by over half of students. There are similar levels (chosen by just below half of students) for cakes/sweet pastries/biscuits and savoury pastries/tarts/spring rolls, with a slightly higher preference for the former. Salad is a relatively popular option – chosen by nearly a third of students. For all these types of foods, students also name these as 'least preferred' types of food but the

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respective proportions in relation to 'most preferred' are lower – particularly in relation to sandwiches/wraps, cakes/sweet pastries/biscuits and fruit.

When looking at least preferred types of food seafood elicits the highest response (nearly half of students) followed by meat and garnish with the same response rate and then dips. These food types are also named as 'most preferred' but in very small numbers, particularly in relation to garnish. No students gave 'dips' as a preferred food. Crisps and salad are interesting in that the responses are directly inversed – equal numbers prefer salad as dislike crisps and vice versa.

Based on their likes and dislikes students were asked the reasons for their preference for certain types of food. A predominant reason given was that students preferred food that was easy and convenient to eat in social situations. Where students had given this reason, their preferred food ranged, in decreasing numbers, from sandwiches/wraps, savoury pastries, cakes/biscuits and fruit.   One student who had chosen all of the above (apart from fruit) wrote -

"They're easy to eat in networking circumstances and there tends to be a large variety available at events".

Students also mentioned that these options were filling and one wrote –

"These are also things which don't really require a plate reducing further waste generation".

The second most cited reason given was a preference for foods that are healthy and nutritious with fruit most frequently given as a preferred food choice, followed by salad, then sandwiches/wraps. One student wrote -
"We spend a lot of time sitting down so should attempt to be more healthy wherever possible"
and another -
"I don't like to overload on sugar - it would only make me fall asleep (which is easy enough in some meetings!)"

A less frequently cited reason for food preferences was simply a personal preference or choice. These included students who were vegetarian, a pescatarian and a few students who didn't like sandwiches/wraps. One wrote -

"It's so boring eating sandwiches every time"

Finally two students commented that they liked cakes/biscuits because of their novelty. One wrote –
"Because I can't make deserts at home, and it's free!"

When looking at foods that students least prefer, responses can be split into roughly three categories. Firstly, about a third of students commented that, in their opinion, certain foods were unhealthy or unappetising. Cake/biscuits were most frequently mentioned in this category, with this food type being cited as unhealthy (rather than unappetizing). Students also commented on the unappetizing nature and smell (to them) of certain foods and the potential to waste quickly – for example, dips, seafood and garnish. One student wrote -

> *"Cakes and crisps are the least healthy options and have a low pay-off value. Garnish, while healthy, is often left uneaten, I have noticed"*

The response 'seafood' was given the most in the second category, which was personal preference. Meat was cited as frequently as seafood in this category. Dips and crisps were cited to a lesser extent but in equal proportion and were the next most frequently cited food type in this category.

The third category comprises food that is 'difficult to eat'. Garnish, seafood and dips were mentioned most frequently in this category and to a lesser extent were salad and crisps. One student wrote -

> *"It (meat, seafood, garnish) is messy to eat and it would be inconvenient to eat these foods if students have to jot down important notes during the events"*

Taking all the three categories together, seafood was the least preferred food type, followed by dips, then meat and garnish in equal proportions. The response 'fruit' was given by only two students, one citing that fruit was messy to eat. Students were asked in **Question 11** the extent to which they were concerned by food left after an event. The results are shown in **Figure 8.**
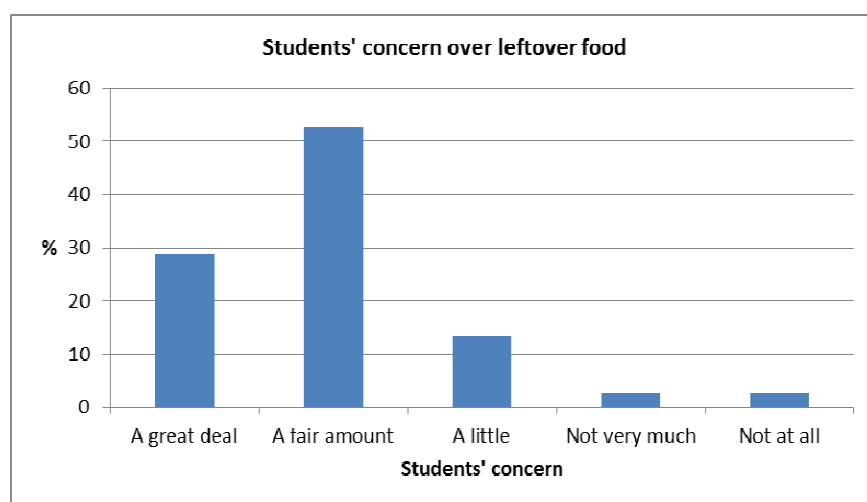

Figure 8 – Students' concern towards leftover food at University events (n = 38)

The results show that students are predominately concerned with food waste from events, with a total of 82% of students responding that they were concerned 'a great deal' or 'a fair amount'. The highest proportion (52%) responded that they were concerned 'a fair amount'. Five students in total (2.6%) were 'a little' concerned. One student was 'not very much' concerned and another not concerned at all.

The final question asked students whether they had suggestions to reduce the amount of food waste at University events. These results have been categorised. The majority of students (21) had suggestions as to how to distribute leftover food. These suggestions included taking food to open spaces or a kitchen area to be eaten by staff and students. Students also suggested pooling food in a central area, such as near the library or at the Student Union and emailing students to advise there was free food available. Another suggested having 'a "leftover buffet" in the canteens/ restaurants (with free food)'. An alternative solution was to encourage attendees to take food home.
One student wrote:

> *"At one event I attended, at the end I saw there was a large amount of food left*
> *(sandwiches) and so I asked the person in charge of catering if I could take them home,*
> *they were very happy for me to take them home as they said they would go to waste."*

Four students suggested donating leftover food to the homeless or food banks, with two students requesting that the university have a system or partnership agreement in place to ensure that this happens. One wrote:

"The university should have systems in place to make sure it can be redistributed, e.g. through the student union's homeless outreach projects"

The second category that students' responses can be put into relates to ordering of food for events. Twelve students made suggestions such as obtaining the number of attendees beforehand, asking attendees to confirm attendance (as food will be provided) and ordering for less than expected at the event. One student wrote:

"One event I have attended overestimated the number of people and as such a large portion was thrown out. "

Students also suggested learning from experience – for example, by not re-ordering food types that are repeatedly left over and adjusting the order depending on the supplier used and their tendency to over or under supply food. Another student made a suggestion that "pre-packed reusable boxes of healthy things that are a per-person amount" would reduce wastage.

Closely related to ordering of food, students gave responses relating to how more information and communication could reduce waste. For example, by asking attendees to pre-book attendance at University events, asking attendees to pre-order food, asking for food preferences on event sign up forms or simply to make very clear that food will be provided.

Five students made practical suggestions. These examples include providing food vouchers for use in University food outlets, filtered water in jugs rather than individual plastic bottles of water and adjust the timing of events to avoid times when attendees would traditionally eat (lunchtimes). However, one student challenged the assumption that food is needed at this time. They commented:

"Don't assume food is wanted or needed - even if meetings/events happen during a lunch time. Some people may eat what's put out because they are greedy/don't like to pass up a free meal, but we are capable of feeding ourselves and some (including me) actually prefer to sort our own lunch out, rather than feel obliged to eat from a selection of food we wouldn't normally want or choose - especially when organisers are telling us to 'eat up, there's loads left!'"

One student made a suggestion very similar to the premise of the staff waste food survey for the project! They wrote:

"Make statistics (rough estimates) on how much is eaten/left each time and find the optimum (reduce the waste). This is easy, will save food, and money."

Finally, two students recommended looking also at the amount of packaging and plastic associated with the provision of food at events with recommendations that this be reduced or re-used where possible and to only use suppliers who re-used items such as plastic platters.

4.0 Discussion

The objectives of this project were, with input from staff and students, to identify possible reasons for food waste at University events, gain insight into their views of the importance (or not) of food provision at events, obtain suggestions for reducing food waste and distribution of leftover food where necessary.

4.1 Survey limitations

The results provided here need to be treated with caution as the number of staff and student survey participants are low. It is also not possible to assume that the results here would be seen across the whole of the university. To put that in context, 9 staff in SEED (who order food) completed the survey and considerably more requisitions were raised in the survey period. 38 students completed the student survey

whilst there are currently over 38,000 students at the university.

However, the lack of participation is a result in itself. There were inevitably different motivations between staff and students for participating. It was suggested that it was compulsory for the appropriate staff to complete the survey when ordering food in order 'to embed' sustainable practices within the workplace. Hence 'official' channels (Head of School emails and team meetings) were used to notify staff about the survey. Clearly this was not enough to motivate staff to participate. Participants all responded within a month of the survey being open suggesting that after the first month the message was lost amongst other competing job requirements. Lack of time, inclination, or a tangible benefit may have been factors and also lack of knowledge of the survey if they missed emails or a team meeting. There was also no 'reward' for carrying out a task that was in addition to their existing work requirements, particularly apparent if they ordered food on a regular basis. Aside from posters on digital installations there was no visual indication that the survey period was open.

More students completed their survey and because they had no obligation to do so, this suggests they were motivated to have their say on a topic that is important to them. Just over a third of students who participated attended events (with food provided) infrequently and yet they still completed the survey. The methods of communication were different for students – via online SEED student newsletters, through the Environmental Sustainability team, hardcopy posters and posters on digital installations. Completion of the survey was also incentivized with the possibility of receiving a £20 High Street voucher. These methods of communication may have increased participation, compared to staff participation. Overall however, in this instance, the project demonstrates the difficulties with engaging staff and students on this particular sustainability issue.

4.2 Positive benefits of providing food

On a positive note, the results from both surveys and interviews with staff yield interesting findings. Both staff and students commented on the many positive and social benefits associated with providing food at events. It is seen as welcoming and enhances the University's reputation particularly with external attendees, encourages attendance and students emphasised the benefits of providing food to make events more sociable. It is also seen as a 'payment' for services provided to the University where these are given on a goodwill basis. It is seen to be important to provide food at all day events or where a meeting coincided with a time food would generally be eaten, particularly at lunchtime.

Staff interviewed advised that it is common practice to provide food at events. However, it was also suggested that there had recently been a slight change in culture and consequently slightly 'less expectation' that it is automatically provided. But one interviewee thought that the practice of providing

food would not change unless there are clear instructions not to do so. There is indication that some students believe it is less important (or not important) to provide food at shorter (less than 3 hour) events.

4.3 Options for reducing food waste

The staff interviewed all displayed a strong desire to reduce food waste and take steps to prevent it. Actions taken include reducing order size according to numbers expected, being proactive regarding confirming attendance, ordering food that is easier to eat, requires less handling and ordering more savoury pastries rather than sandwiches (which staff thought spoilt quickly). They have a preference for individually plated portions rather than a buffet style provision. Staff also consider not providing food for small meeting where they have a choice and in some instances provide vouchers for use in University cafes instead of food.

The latter option was also suggested by students. When students were asked how food waste could be reduced they gave similar answers to staff regarding ordering but also added that attendees could be asked for food preferences, to pre-book events and pre-order food. One also suggested providing jugs of water, (as opposed to plastic bottles) and another suggested avoiding meetings at lunchtime. Staff and student availability would influence the latter, but there alternatives to providing food at the event itself. The café worker interviewed made a judgement on what to order based on past experience and also his choices were supported by an established audit system that monitored the amount and type of waste.

When looking at the audit system used in FoodOnCampus cafés it would be an option to audit the amount of food wasted at University events in a similar way. There would be an opportunity to map out where waste occurs, even in a simplistic fashion for example, by correlating waste with types of event or where the most financial savings could be made. Or there could be a detailed audit similar to what happens in food outlets. Factors to consider would be who would carry out the audit – the staff asking for food to be provided or the staff tasked with clearing away after the event. Moreover, given the lack of motivation to complete the staff survey in this project, a suggestion of a waste food audit for events is likely meet with much resistance from staff. An audit would establish facts and figures but needs to be balanced against de-motivating staff, particularly if it were completed by staff clearing up. This project has indicated that these staff already play a significant role in trying to reduce food waste, despite not always being responsible for making the decision to provide food. An audit could be undertaken by an external auditor – but at a cost.

It is inevitable that some food will be wasted as provision of food is not an exact science. There is indication that more is wasted at events where staff or students have a choice to attend. Taking the overall range of events and the inability to identify exactly where the waste occurs, there are several choices that could be made. For example, it would be possible to tighten up booking procedures at larger events or to not provide food at smaller and shorter events. If attendance is unpredictable, there is an option to limit

the occasions that food is actually offered. This would need to be balanced against the fact that, as indicated here, food provision does provide a positive social benefit. But also indicated is a slight shift away from the expectation that food is automatically provided. If food is provided to 'entice' people to meetings, it is being used as 'compensation' rather than to welcome. It may be more beneficial overall to question the value of the meeting.

When considering the suppliers used to provide food for events, the University, as a major purchaser of food in the local region has a lot of influence over its suppliers. Therefore it is in a strong negotiating position to have a positive dialogue with suppliers regarding the desire to operate more sustainable practices in relation to food provision and to reduce food waste. In some instances, this already happens. Students commented on the amount of waste packaging and it would be beneficial to only use suppliers who are active in reducing food packaging and re-using platters as standard practice. Whilst the University can seek to influence the supply chain this does not need to place onerous demands on small suppliers. Many suppliers publish how they are working towards their sustainability commitments on their websites. It may be an option to circulate a list of these suppliers to staff ordering food for events.

Despite the best efforts of the staff interviewed there is often still waste food left after events though it is not possible to establish the full extent of this and what actions other staff in SEED take when ordering food. The staff survey indicated food was wasted, anecdotal comments indicate that food is still being left and students surveyed here made several comments about the amount of food waste they see.

4.4 What types of food are liked by students?

The staff survey asked what types of food were left and the student survey asked students' food preferences. In the former the most frequently left types of food were sandwiches/rolls/wraps and cakes/sweet items/biscuits. This is in contrast with student preferences where these two types of food were preferred alongside fruit. The events for the staff survey where sandwiches/rolls/wraps and cakes/sweet items/biscuits were left were not events for students. It could be simply that too much food was ordered rather than that the food type was not liked by attendees. Had the survey numbers been greater it might have been possible to establish this as presumably more student events would have been noted.

Students also preferred foods that were easy to eat but also, to a slightly less extent, foods that were healthy and nutritious. Fruit scored highly in both categories. Amongst students' least preferred foods were foods that were difficult to eat such as dips and garnish. Staff interviewed said they tried to provide food that was easy to eat. Meat and seafood were also least preferred by students. There were quite a few vegetarians who responded and it may be that less food would be wasted by providing more vegetarian options. Seafood was not preferred due to the smell and health and safety concerns and is a food type

generally not provided.

4.5 Is it important to reduce food waste?

When looking at this question, all staff interviewed were concerned about the food wasted at events. They thought it immoral to waste food and that it was wasteful financially for the University. None of the staff mentioned environmental concerns associated with food waste. 82% of students surveyed responded that they were concerned 'a great deal' or 'a fair amount' about food waste. Their reasons were not given. No students commented on the environmental implications of food waste apart from two who commented on the wastage generated by packaging.

Students were included in this project partly because staff suggested that food is often provided due to expectation from stakeholders. Students are among the many stakeholders that the University has and as such are an 'easy' group to survey to look at this assertion. It would not be appropriate to survey other stakeholders who attend University events where food is provided, but it is worth considering the image the University presents at events. If a positive reputation can be upheld by providing hospitality through food, so too can a negative reputation be gained by having a casual approach to food waste that it generates. Food waste in kitchens and cafés at the University is generally hidden, but at events it is on show. It is important to be mindful that Goal 3 of the Manchester 2020 vision includes a commitment to environmental sustainability. Some examples of food left in SEED buildings during and after the survey periods are included in **Appendix Seven**.

4.6 What do we do with leftover food?

As illustrated by the food and drink material hierarchy diagram presented by WRAP in the introduction, the most efficient use of food as a resource is to prevent (or reduce) its waste. This is the ideal scenario and one that we have focused on in this project. This is followed by optimisation (re-distribution to people) and examples have been given by student and staff where this happens. It is common practice for students and other staff to provide an informal 'hoovering up' role. Whilst this may suggest that consequently food is not wasted, there are instances where for several reasons a lot of food is still left. It may also be legitimate to ask why the University is spending money feeding staff and students who can easily feed themselves elsewhere. However, students surveyed were vocal in suggesting that, as a solution, leftover food be taken to staff/student kitchen areas and this is often currently done.

They also suggested taking food to more central hubs such as the Student Union or library. However, there could be logistical difficulties around transporting food to areas outside the building where the event was held, the question as to who would do this and probable health and safety concerns. Staff and students expressed a desire to know whether it is possible to donate leftover food to charities. This is currently done by the Café Devas and it would be desirable to have a system in place whereby suitable

leftover food from events could be included in this practice. At present FoodOnCampus have a list of charities accepting food on their website. One of the charities - Manchester Universities Society for Catholic Chaplaincies (MUSCC) spoke with us and submitted a proposal for consideration. If a comprehensive system for collection was set up and communicated University wide this would be better than a piecemeal approach. This would presumably need to involve the University legal team due to health and safety concerns associated with distribution of leftover food from University events to third parties. The logistics of the arrangements could be problematic. However, the expertise from the University Process Improvement team would be valuable in breaking down the process into the steps required to make it happen.

The third (and less efficient option) is recycling - where food waste is composted, then recovery (to produce renewable energy) and finally disposal which is the least efficient way of using food. At present leftover food from events is discarded via this final route as is as is perishable food from the café. As such it is a wasted resource and adds to the weight of general rubbish tipped by the University, so adding to landfill charges, and environmental costs by contributing to greenhouse gas emissions through its decomposition. One potential alternative solution is to turn this wasted resource into something more useful and we can look at the recycling and recovery options. As outlined previously, we were contacted by a M.Sc. student who is carrying out her dissertation research on the topic of food and the University. She advised us of a food waste recycling specialist called 'ReFood' with plants in Widnes and Yorkshire (ReFood, 2016). For their website see http://refood.co.uk/

Food waste is collected from organisations and by using anaerobic digestion technology is converted into renewable energy and a biofertiliser called ReGrow.   At present food waste is taken by 'ReFood' from University catered halls. The possible expansion of this service to include food waste from four FoodOnCampus outlets - EATS, Greenhouse, Enigma and Vasaio is being discussed so that the food waste can be separated at source.

An alternative provider is an organisation based in Cheshire called 'Tidy Planet The Food Waste Experts'. See http://www.tidyplanet.co.uk/ They provide a recycling service but unlike 'ReFood' waste food is composted and re-used on site. See details of a case study with Liverpool University Guild of Students - http://www.tidyplanet.co.uk/who-we-work-with/case-studies/liverpool-university-guild-students/

Therefore one possibility after options for reduction and optimisation of food waste are exhausted, could be to investigate the feasibility of further expanding the use of 'ReFood' to include food waste from University events or to look at alternative providers such as the above. This would inevitably be as part of a far larger University solution to manage its food waste from all areas of its activities.

5.0 Conclusion and Recommendations

The project aimed to establish ways of reducing food waste from University events and distributing leftover food where necessary. This was done by piloting a staff food waste survey in SEED, a University student food waste survey and through interviews with staff who order food for events in SEED and a café worker for FoodOnCampus. The two students we worked with originally suggested that only by collecting data on actual food wastage from events could decisions be made regarding how to reduce this waste. Due to the small amount of participation in the staff survey, it was not possible to test this premise. The majority of findings have resulted from the student survey and the interviews. The need to engage both staff and students in the topic of sustainability and food is indicated if changes are to be made in this area at the University.

Food provision at University events was seen to be important by both staff and students. Both were also concerned with food wastage from these activities with staff citing financial and moral reasons for their concern. Staff interviewed suggested reasons why food may be wasted and currently take active steps to reduce food wastage where they can. More food is generally wasted at events where there is a choice for staff or students to attend. Both students and staff recommended ways to further reduce wastage and there is an indication of a desire to re-distribute leftover food to charities through a formal collection system. There is an overlap between foods that are 'easy to eat' that staff recommend purchasing with this preference given by students. There is also some indication that students favour healthier food, particularly fruit, alongside sandwiches, savouries and cakes. The following recommendations are made based on the findings of the project.

5.1 Reduction options

Awareness raising

* Raise awareness in all staff (particularly PSS and academic staff requesting food) of the desire to reduce food waste at University events - this may help towards removing an apparent dis-connect between requesting food and not seeing the end result of leftover food.

* Question the need for food provision. It may be 'legitimate and beneficial' to provide food, but that question needs to be asked, rather than assuming food is necessary for an event

* Question the content and value of certain events if food is being used as 'an incentive' to attend.

* Provide 'good news' stories and examples of positive initiatives on campus relating to food – to avoid the sustainability message to reduce food waste being seen in a negative light. Link to any University College or Manchester Leadership Programme units/projects relating to sustainability and food

* Communicate to staff recommendations of 'good practice' for food provision at events

Change in practice – for staff requesting and ordering food

* Consider the timing of meetings – avoid if possible, times where food would normally be expected, such as lunch/tea time

* Question the necessity for provision of cakes/croissants for short meetings

* Consider not providing food at certain meetings – for example, short internal meetings. This is now standard practice at training events run by STDU – it is advised by email that food will not be provided

* Order food that is 'easy to eat'

* Consider the provision of individually plated food – for example one supplier can provide an 'executive' lunch pack

* Avoid using suppliers with a minimum spend or numbers required

* Consider more fruit and vegetarian options at student events (alongside sandwich/savoury pastry and sweet items)

* Ask staff/students to pre-book at large events

Alternatives to food

* Consider providing vouchers instead of food – to be used at FoodOnCampus cafés – these are particularly effective in induction weeks (un-used vouchers can be used at future events) but would need to consider the accessibility and size of cafés near to the event.

* Use vouchers to 'top up' supplies if running low (contingency plan)

Information/communication

* Include an 'Impact statement' or logo attached to email signatures to raise awareness of reducing food waste (similar to 'don't print unless necessary' statements designed to reduce unnecessary printing of emails)

* Put a suitable paragraph in the invitation to an event regarding the University's desire to reduce food waste and that unless confirmation is confirmed, food will not be provided

* Advise in letters to students that bottled water will not be provided at assessment days

* Be pro-active when confirming numbers invited to an event

Dialogue with suppliers – at University level or individual level, where appropriate

* Speak with suppliers regarding wanting to reduce food waste and provide specific examples where certain practices may help – e.g. need for flexibility/substitution when ordering, exclusion of foods that are generally wasted – for example garnish, dips, salad (presented as garnish) and crisps (unless bagged).

* By negotiation with food suppliers it would be possible for them to provide water glasses/jug for use at events which they would collect (similar to collecting cups) when they collect food trays for re-use (in conjunction with assessing the feasibility of the expansion of useable plumbed in water coolers)

* If a particular supplier over supplies food – ask them to provide less (or order less)

* Negotiate a reduction in the daily delegate rate if certain items (such as cake in the morning and afternoon) are excluded

5.2 Optimisation options

* Look at the legalities in terms of health and safety to distribute leftover food from events to charities

* Look at the feasibility of establishing a University wide system whereby leftover food from events is diverted to charities

5.3 Recyling options

* Consider investigating the feasibility of expanding the use of 'ReFood' (or alternative recycling providers) to include food waste from University events

Appendix One - QR code for SEED staff food waste survey

The Quick Response (QR) code is a machine-readable optical label that contains information about the item to which it is attached. The QR code which linked to the online survey is below:

1) Which event was the food provided for?

2) Why was food provided at the event?

3) Which supplier did you use?

4) How many delegates attended the event?
less than 5 people
5 to 10 people
11 to 20 people
21 to 30 people
more than 30 people

5) How many delegates were expected to attend the event?
less than 5 people
5 to 10 people
11 to 20 people
21 to 30 people
more than 30 people

6) Approximately what percentage of food and drink was left over after the event?
Food
Opened water bottles
Opened drink cartons

None
Less than 10%
10 to 25%
26 to 50%
51 to 75%
More than 75%

7) What type of food was left?

Savoury pastries, tarts or spring rolls
Sandwiches, rolls or wraps
Meat
Seafood
Garnish
Cheese
Crisps
Dips
Salad
Fruit
Cakes/sweet items/biscuits
None
Other, please specify

8) Feel free to leave any comments related to this particular event and/or relating to food waste from events generally - including suggestions on how to reduce waste.

1) I am
Undergraduate student
Postgraduate Taught student
Postgraduate Research student

2) What discipline are you studying?

3) What Faculty are you studying in?

4) How often do you attend events (conferences/workshops/meetings) at the university campus where food is provided?
Infrequently
Once a month
2 to 4 times a month

5) How important do you think it is that the university provides food at events?

Scale 1 to 10 (not important = 1, important = 10)

6) Based on your response, please tell us why you think food provision is important/not important at events?

7) Which types of food do you most prefer to eat at events? (Select three most preferable)

Savoury pastries, tarts or spring rolls
Sandwiches and wraps
Meat
Seafood
Garnish
Cheese
Crisps
Dips
Salad
Fruit
Cakes/sweet pastries/biscuits
Other, please specify

8) Why do you prefer these foods the most?

9) Which types of food do you least prefer to eat at events? (Select three most preferable)

Savoury pastries, tarts or spring rolls
Sandwiches and wraps
Meat
Seafood
Garnish
Cheese
Crisps
Dips
Salad
Fruit
Cakes/sweet pastries/biscuits
Other, please specify

10) Why do you prefer these foods the least?

11) Thinking about the food left after an event, to what extent does this concern you?

A great deal
A fair amount

A little
Not very much
Not at all

12) Do you have any suggestions to reduce the amount of food waste at university events?

13) If you wish to be entered for the random monthly draw please leave your student email address

The prize is £20 High Street vouchers

Appendix Four – Interview questions for PSS staff in SEED who purchase food for events

How often do you provide food at meetings?

What type of meetings is food provided at?

Why do you provide food for meetings?

What times are the meetings?

How long are the different types of meetings?

What is the process for ordering food?

How much food is left over at meetings (if any)?

Why do you think food is left over?

Are there any factors that increase the likelihood that food may be wasted?

Do you think it is important to reduce food waste? Why?

What do you do to try and limit the amount of food wasted?

Have you any suggestions of how food waste could be reduced?

Do you think there would be any resistance to implementing 'better' practices?

Do you have meetings where food is not provided?

What type of food is left over?

How many drinks are drinks left over (if any)?

What types of drinks are left over?

What do you do with any food/drink left over?

Appendix Five – Interview questions for a FoodOnCampus café worker – Café Devas, Ellen Wilkinson Building

How do you decide what food to stock?

Or is it delivered anyway?

What type of food is left over (and cannot be used the following day)?

What do you do with waste food at the end of the day?

Health and Safety issues…

Are there any factors that increase the likelihood that food may be wasted?

Do you think it is important to reduce food waste? Why?

What do you do to try and limit the amount of food wasted?

Is there a drive from the university/Food on Campus to reduce food waste?

Is data collected about the amount of food waste each day/week at this cafe?

Do you know if data is collected centrally/from all venues?

If so, do you know what happens as a result?

Have you any suggestions of how food waste could be reduced?

Appendix Six - Manchester Universities Society for Catholic Chaplaincies (MUSCC) proposal

Proposal for Food Waste Collection

Objective:

Reduce University food waste by arranging for collection of all leftover catered food as soon as possible after consumption. The food will be stored by the Saint Vincent de Paul Society, an extreme poverty charity that operates out of the University Catholic Chaplaincy. The food will then be used on our soup runs for the homeless, where volunteers take the food up Oxford Road towards Piccadilly Gardens, distributing it to those who are hungry and living on the streets.

Logistics:

-Notification of event occurrence by the Sunday before the event occurs.

-A set time for when food will be removed from catered location and set aside.

-All food that can be refrigerated such as: Sandwiches, Salads, Tuna dishes, but not any Egg or Fresh Fish dishes should be put together for collection. Plus foods like cakes and biscuits will also not expire after being in the open so we can use them.

-Volunteers from the SVP will arrive to collect the food and bring it to the chaplaincy (across from the Students Union) to be stored in our fridges.

-Food will be inspected to see if it is safe to consume.

-They will be taken out on soup runs within two days of storage and disposed of if not used, students may choose to take them home as well if there is more food than demand.

Health and Safety:

-The SVP is a registered charity with full liability for our actions.

-We inspect all our food before going out on soup runs, all food deemed unsuitable will be disposed of.

-We have never had a complaint regarding our donations, and it is unlikely that those on the streets would complain about the quality of donations.

-Students who would take the food if we have excess are told to take at own risk, and we have never had a student complaint regarding leftover food.

-All food is distributed in clear wrapping and is not labeled by donor, no identification is given to the source of our donations when on a soup run.

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Appendix Seven - Some examples of leftover food in SEED buildings during and after the survey period