Municipal Solid Waste Mining
PILOT for Waste Separation at the Source
The Hong Kong Polytechnic University
Student Halls of Residence (Homantin)
Period 17 March to 25 May, 2014 (10 Weeks)
Pilot Run Status Report
(From March 17 to March 30)
Data Collected (Mar 17-30)

The following from the Software

- There were 83 students participating the competition from Mar 17 to 30, who have scanned their cards to open the inlets;
- Frequency of one student – scanned the card for 29 times in total on Mar 22 (from 23:52 to 00:09) & 23 (from 16:06 to 16:10) and this student has successfully opened the inlets most – 17 times;
- The students usually opened the inlet from morning (07:33) to mid-night time; only few students opened the inlet from 01:30 to 07:30;
- The Winning Hall for the first period (17-30 Mar, 2014) is the Green Hall which has recorded a total 90 times of card scanning and out of this number 57 times has successfully opened the inlets.
- The 1st runner up is the Orange Hall, the number of times which has successfully opened the inlets is 38.
- In the first launching period (17-25 Mar, 2014) there were paper, plastics and metal being collected for the waste – the volume of paper collected is 17 kg, 6.5 kg for plastics and metal for 1 kg.
- The total quantity of the paper, plastics and metal collected for the 17 to 30 March will be reported in April.

The following from Questionnaire

- Very few students have used the degradable bags for packing the waste;
- So far the waste was separated correctly;
Frequency of scanning the student card vs Number of students who participated

Total number of scanning: 225

Total number of students who participated: 83
Frequency of inlets being opened vs un-opened

Inlets being opened: 154 times

Inlets not opened: 71 times
Frequency of Hall Participation
(Number of times for student card scanning)

<table>
<thead>
<tr>
<th>Hall</th>
<th>Inlet unopened</th>
<th>Inlet opened</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blue</td>
<td>7</td>
<td>17</td>
</tr>
<tr>
<td>Green</td>
<td>33</td>
<td>57</td>
</tr>
<tr>
<td>Orange</td>
<td>16</td>
<td>38</td>
</tr>
<tr>
<td>Red</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td>Violet</td>
<td>3</td>
<td>22</td>
</tr>
<tr>
<td>Yellow</td>
<td>6</td>
<td>5</td>
</tr>
</tbody>
</table>
Successful Rate of Scanning Frequency to open the inlet per Hall
(by referring to the number of times for card scanning in previous slide)

<table>
<thead>
<tr>
<th>Color</th>
<th>Inlet opened</th>
<th>Inlet unopened</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blue</td>
<td>29%</td>
<td>71%</td>
</tr>
<tr>
<td>Green</td>
<td>37%</td>
<td>63%</td>
</tr>
<tr>
<td>Orange</td>
<td>30%</td>
<td>70%</td>
</tr>
<tr>
<td>Red</td>
<td>29%</td>
<td>71%</td>
</tr>
<tr>
<td>Violet</td>
<td>12%</td>
<td>88%</td>
</tr>
<tr>
<td>Yellow</td>
<td>45%</td>
<td>55%</td>
</tr>
</tbody>
</table>
Frequency of Hall Participation
(number of students who participated and successfully opened the inlets)

- Students could scan more than one time but NOT all could open the inlet successfully at all time.
- Students who have successfully opened the inlets will be awarded with the coffee coupon.
Most Frequently Participated Student
(Only on Mar 22 & 23)

On Mar 22 - Scanned & opened the inlet 15 times

On Mar 22 – Scanned but did not open the inlet 3 times

On Mar 23 – Scanned & opened the inlet 2 times

On Mar 23 – Scanned but did not open the inlet 9 times

Total Number of Scanning: 29

Remarks: Then this student scanned one more time again on Mar 30 and opened the inlet.
Volume of Waste Collected (Mar 17-25)

- Plastics: 6.5 kgs
- Paper: 17 kgs
- Metal: 1 kg

Waste Collection for Recycling
Contribution of Waste Collected (Mar 17-25)

- **Paper:** 17 kgs
- **Plastics:** 6.5 kgs
- **Metal:** 1 kg

- Saving 0.289 trees
- Reduction of 6.9 kg carbon emission
- Re-produced 4.55 kg oil materials
Qualitative Data

- Very few students have used the degradable bags for packing the waste before throwing it into the inlet.
- So far the waste was separated correctly.
Project Sponsors

**WSS**
Equipment and Technology Sponsors

**The Hong Kong Polytechnic University**
• Student Affairs Office
• Health, Safety & Environment Office
• Department of Industrial & Systems Engineering

**Perfect Green**
Degradable Bags Sponsor