**Heriot-Watt University**

**School of Engineering and Physical Sciences**

**B49CB Business Awareness, Safety and Sustainability**

**Group Project**

**Minutes of Meeting 2 of Group Meeting – 27/09/2020**

**Present: Ross Brown, Callum Jardine, Andrew Leahy, Cameron Maxwell, Chi Tse, Seun Ojuoko**

**Apologies:**

**Not Present:**

Minutes taken by: Callum Jardine

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| **No.** | **ITEM** | **ACTION** |
| **1.** | Group 1, recycling plastic idea- Cameron, Callum and Seun   * Cameron presented the groups idea to all members on behalf of the team, highlighting the brief overview of the idea and the dangers of doing so before moving on to a more in-depth analysis of the problem   Process   1. Use bike power to shred the plastic into one uniform size 2. Heat and melt the plastic using a collection of energy sources including a solar panel connected to the system to melt the plastic 3. Pour plastic into pre-set aluminium moulds shaped of household items such as chairs, 1m ^2 slab, potentially a Lego shaped brick used for building infrastructure in the area and pipes to improve the waste management system. 4. Allow the plastic to cool in the mould for roughly 15 minutes   Main problems   1. Sourcing large amounts of plastic to use – however there is a dump site 3 hours away that could be used for resources 2. Containment of harmful emissions |  |
| **2.** | Group 2, bio farm idea – Ross, Chi, Andrew   * Ross presented for the team highlighting firstly the main overview of their idea before going into more detail.   Process   1. Sea Water is pumped into a pre filtration system initially to get rid of large debris and impurities 2. Filtered water moved into a water tank 3. Use of mirrors and heating elements to boil the water to create steam 4. This steam is trapped on the roof where it moves down a slope into a freshwater tank 5. This water will then be used in the farm to create crops and increase local food supplies greatly   Main ideas   1. Desalination through boiling method using mirrors mainly to turn sea water to steam which will then condense back into fresh water, this method will bring cost down significantly. 2. Using local waste to bring the cost down   Main problems   1. Ross highlighted the problem of trying to make it our own solution rather than a previously created one 2. All members highlighted cost was a problem with the farm costing more than $750000 |  |
| **3.** | The group decided collectively that the plastic recycling idea was a more relevant and practical solution and that was therefore the solution we would take forward.  The plastic group as a result went into more depth around the idea and welcomed in ideas from the other team to improve their solution. Andrew highlighted the use of wind energy to power the system as lobitos is located near to the sea. |  |
| **4.** | Tasks assigned to each member to complete for Monday  Callum – research the layout of the assignment  Seun – research the poster  Andrew, Cameron, chi and Ross – research further |  |
| **5.** | **Date of Next Meeting: 12/10/2020**  **Time:13:00**  **Place: Microsoft Teams**  **Chair:Cameron Maxwell**  **Minute Taker:Ross Brown** |  |