Making Sustainability an integral part of the UWC experience
About us

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Structure

• **Part 1: The Bigger Picture**
  Sustainability and the UWC mission

• **Part 2: Sharing Thoughts and Experiences**
  Making the most of the expertise that’s in this room

• **Part 3: Moving Forward**
  Thinking about the next steps
PART 1: THE BIGGER PICTURE
UWC makes education a force to unite people, nations and cultures for peace and a sustainable future.

UWC schools, colleges and programmes deliver a challenging and transformational educational experience to a diverse cross section of students, inspiring them to create a more peaceful and sustainable future.

UWC believes that to achieve peace and a sustainable future, the values it promotes are crucial:

- International and intercultural understanding
- Celebration of difference
- Personal responsibility and integrity
- Mutual responsibility and respect
- Compassion and service
- Respect for the environment
- A sense of idealism
- Personal challenge
- Action and personal example
What we mean by “sustainability”
What we mean by “sustainability”
What we mean by “sustainability”

Student Orientation Week @ UWC RBC:

Every student looks up & shares literal translation of “sustainability” in their language
What we mean by “sustainability”

Emerging understanding:

“Doing things in a way that we can do them forever / for a very long time”

Consensus that environmental concerns play a central role
UWC makes education a force to unite people, nations and cultures for peace and a sustainable future

UWC schools, colleges and programmes deliver a challenging and transformational educational experience to a diverse cross section of students, inspiring them to create a more peaceful and sustainable future.

Does not explicitly say anything about teaching or practicing sustainability
Temperature checks

• Temperature check: Where are we today with regards to sustainability?

• Use your hands to indicate how much you agree with the following seven statements – from “totally agree” (hands up high) to “totally disagree” (hands way down)
Temperature checks

“When it comes to sustainability, UWC is already successfully ‘living the mission’”
“Peace and tolerance are currently more central to UWC than sustainability”
Temperature checks

“Peace and tolerance are inherently more central to UWC than sustainability”
Temperature checks

“Developing our focus on sustainability is currently a strategic priority for most colleges”
Temperature checks

“There is a UWC-wide shared understanding of what we want to achieve with regards to sustainability”
Temperature checks

“Our current ‘deliberate diversity’ model is a great asset when it comes to sustainability education”
Temperature checks

“Our current ‘deliberate diversity’ model is a great challenge when it comes to sustainability education”
The Inconvenient Truth
The Inconvenient Truth

Data: CDIAC/GCP/IPCC/Fuss et al 2014

Scenario categories:
- >1000 ppm CO₂eq
- 720–1000 ppm
- 580–720 ppm
- 480–580 ppm
- 430–480 ppm

Emissions from fossil fuels and cement (GtCO₂/yr)

2015 Estimate

Historical emissions

RCP8.5
3.2–5.4°C
relative to 1850–1900

RCP6
2.0–3.7°C

RCP4.5
1.7–3.2°C

RCP2.6
0.9–2.3°C

net-negative global emissions

Global Carbon Project
The Inconvenient Truth

Data: CDIAC/GCP/IPCC/Fuss et al 2014

Scenario categories
- >1000 ppm CO$_{2}$eq
- 720–1000 ppm
- 580–720 ppm
- 480–580 ppm
- 430–480 ppm

2015 Estimate

Historical emissions

net-negative global emissions

Emissions from fossil fuels and cement (GtCO$_2$/yr)

2t CO$_{2e}$
= 1 x one-way Frankfurt -> Singapore
= 400,000 hours of CFL light bulb

2t / person / year
Group Task: Defining the mission

With six people around you, try and come up with a succinct “UWC sustainability mission statement” which clarifies our aims with regards to sustainability in UWC education.

What do we want to achieve?

What would be indicators of success/failure with regards to this mission statement?
The UWC RBC Version

We want to provide our students with an educational experience that encourages, empowers and enables them to help create a more sustainable future through informed and meaningful actions both during and after their time in UWC
Four thoughts from UWC RBC

• These are aspirations, not necessarily realities (yet)!
UWC RBC Thoughts 1/4

• By providing our students with both the *information* and the *inspiration* they need to take meaningful and informed *actions*
“The Formula”

• **Meaningful Action** = Information x Inspiration

“Surface Sustainability”
specific behaviours *informed* by knowledge about specific problems

“Core Sustainability”
intrinsic desire to live sustainably, *inspired* by positive experience
UWC RBC Thoughts 2/4

• By taking *local actions* to make our school more sustainable, and putting these actions in a *global context* that makes them relevant for students from a wide range of backgrounds
By making sustainability “the hub in the wheel” that connects different aspects of our college life and makes sustainability “everyone’s job”
UWC RBC Thoughts 4/4

• By creating **structures** that allow us to achieve our aims through a **continuous, strategic process** which involves students but also ensures continuity to achieve longer-term aims
Sharing Experiences & Ideas: Overview

- Sustain ability
- Structures & strategies
- College footprint
- Academic
- Extra-curricular
- Making it relevant
- Student careers
Sharing Experiences & Ideas: Structures

- What structures are useful/necessary?
  - Strategy documents
  - SMART goals
  - Steering groups
  - …

- What is the right balance between “top down” and “bottom up”?
Sharing Experiences & Ideas: College footprints

- Monitoring & reducing our “footprints”
  - Energy use
  - Transport
  - Food
  - Products / purchasing
  - Waste & recycling
  - ...
# UWC RBC Transport Impact Monitoring

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Destination</th>
<th>Number of People</th>
<th>Distance (km)</th>
<th>Mode</th>
<th>Conversion Factor</th>
<th>Carbon Emission per Person</th>
<th>Total Carbon Emission (kg CO₂)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do Good! Shop and Help</td>
<td>Kassel</td>
<td>11</td>
<td>456.3</td>
<td>Train</td>
<td>43</td>
<td>33.24</td>
<td>432</td>
</tr>
<tr>
<td>An Austrian Horror Story</td>
<td>Innsbruck, Austria</td>
<td>6</td>
<td>358</td>
<td>Bus</td>
<td>30</td>
<td>21.48</td>
<td>129</td>
</tr>
<tr>
<td>Apple (Picking) Inc.</td>
<td>Wolfszitz</td>
<td>4</td>
<td>1000</td>
<td>Car</td>
<td>139</td>
<td>278.00</td>
<td>1112</td>
</tr>
<tr>
<td>Aut. Discovering Us?</td>
<td>Berlin</td>
<td>10</td>
<td>809</td>
<td>Bus</td>
<td>30</td>
<td>48.54</td>
<td>484</td>
</tr>
<tr>
<td>Bodensee Kayaking / Rhine Cycling Trip</td>
<td>Bodensee</td>
<td>19</td>
<td>175</td>
<td>Car</td>
<td>139</td>
<td>48.65</td>
<td>924</td>
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<tr>
<td>Creativity in the Heart of Europe</td>
<td>Prague</td>
<td>10</td>
<td>659</td>
<td>Bus</td>
<td>30</td>
<td>39.54</td>
<td>395</td>
</tr>
<tr>
<td>Gender studies, literature and blogwriting</td>
<td>Amsterdam</td>
<td>6</td>
<td>678</td>
<td>Bus</td>
<td>30</td>
<td>40.68</td>
<td>244</td>
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<tr>
<td>Get on Top</td>
<td>Arbonne-la-Forêt</td>
<td>7</td>
<td>336</td>
<td>Bus</td>
<td>30</td>
<td>32.16</td>
<td>225</td>
</tr>
<tr>
<td>Helen, this is crazy mountain sh’t aces</td>
<td>Otztal</td>
<td>9</td>
<td>358</td>
<td>Car</td>
<td>139</td>
<td>99.52</td>
<td>896</td>
</tr>
<tr>
<td>Hiking with Kingrid</td>
<td>Savoie</td>
<td>9</td>
<td>600</td>
<td>Car</td>
<td>139</td>
<td>165.80</td>
<td>1501</td>
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<tr>
<td>La découverte de Paris</td>
<td>Paris</td>
<td>10</td>
<td>600</td>
<td>Bus</td>
<td>30</td>
<td>36.00</td>
<td>360</td>
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<tr>
<td>La Machina fissa</td>
<td>Mantova</td>
<td>10</td>
<td>593</td>
<td>Bus</td>
<td>30</td>
<td>35.58</td>
<td>356</td>
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<tr>
<td>Permaculture is the new black</td>
<td>France</td>
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<td>893</td>
<td>Bus</td>
<td>30</td>
<td>53.58</td>
<td>482</td>
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<tr>
<td>Prague Meets UWC (...again)</td>
<td>Prague</td>
<td>8</td>
<td>659</td>
<td>Bus</td>
<td>30</td>
<td>39.54</td>
<td>316</td>
</tr>
<tr>
<td>Prague Thrift Shop</td>
<td>Prague</td>
<td>8</td>
<td>659</td>
<td>Bus</td>
<td>30</td>
<td>39.54</td>
<td>316</td>
</tr>
<tr>
<td>Service with Landry and Issa</td>
<td>Luxembourg</td>
<td>17</td>
<td>341</td>
<td>Bus</td>
<td>30</td>
<td>20.46</td>
<td>348</td>
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<tr>
<td>Slow Food in Turin</td>
<td>Turin</td>
<td>8</td>
<td>578</td>
<td>Bus</td>
<td>30</td>
<td>34.68</td>
<td>277</td>
</tr>
<tr>
<td>So what do you know about Polish aged</td>
<td>Krakow</td>
<td>9</td>
<td>1191</td>
<td>Bus</td>
<td>30</td>
<td>71.46</td>
<td>643</td>
</tr>
<tr>
<td>Tesla</td>
<td>Milan</td>
<td>7</td>
<td>407</td>
<td>Bus</td>
<td>30</td>
<td>24.42</td>
<td>171</td>
</tr>
<tr>
<td>UWC RBC Field Trip to Berlin</td>
<td>Berlin</td>
<td>12</td>
<td>809</td>
<td>Bus</td>
<td>30</td>
<td>48.54</td>
<td>582</td>
</tr>
<tr>
<td>Volunteering in Paris (title in progress)</td>
<td>Paris</td>
<td>9</td>
<td>550</td>
<td>Bus</td>
<td>30</td>
<td>33.00</td>
<td>297</td>
</tr>
<tr>
<td>Zugspitze, Eibsee and Neuschwanstein</td>
<td>Garmisch-Partenkirch</td>
<td>4</td>
<td>420</td>
<td>Bus</td>
<td>30</td>
<td>25.20</td>
<td>101</td>
</tr>
</tbody>
</table>

| Total Carbon Emission                | 10.594                 |
| Average Emission per Person          | 52                     |
Sharing Experiences & Ideas: Academics

- identifying **common sustainability themes** across subjects
- teaching **subject knowledge through sustainability content** (texts in language classes, examples in maths etc.)
- encouraging sustainability themes in **G4 Week, IAs and EEs** (especially World Studies)
- sustainability **links to extra-curricular activities**
- ....
\[
P = \frac{E}{t} = \frac{E}{Pt} = \frac{70}{70}\ \text{kw}
\]
\[
C = \pi d = \pi \times 220\ \text{m}
\]
\[
P = \frac{1}{2} m v^2
\]
\[
m = \text{Vol} \times \rho
\]
\[
m^2 = A \times v
\]
\[
P = \frac{1}{2} A \rho v^2 = \frac{1}{2} \rho A v^3
\]
\[
P = \frac{1}{2} m \rho v^2
\]
\[
m = \text{Vol} \times \rho
\]
\[
\frac{1}{2} \times 38,000\ \text{kg/s} \times 10^3 \text{m}^2 / \text{s}^2
\]
\[
P = 1,900,000\ \text{W}
\]
\[
E_{\text{out}} = 1,000\ \text{kw}
\]
\[
E_{\text{in}} = 1,900\ \text{kw}
\]
\[
E_{\text{in}} = \frac{E_{\text{out}}}{\text{Eff}}
\]
\[
\text{Eff} = 53.6\%
\]
Sharing Experiences & Ideas: Extra-curricular

- CAS
- Global Affairs
- Special Events (Sustainability Day etc)
- Project Week
- …
Sharing Experiences & Ideas: Making it relevant

• Experience at UWC RBC: Sustainability is sometimes perceived as a (white/European/Western ?) luxury concern, lack of relevance

• Perceived competition with other issues (conflict, inequality, poverty)

• How do we make sustainability relevant for everyone? How to leverage our diversity?
Sharing Experiences & Ideas: Student careers

- To which extent (if at all) should explicitly encouraging careers in sustainability be one of our aims?

- If we want to do it: How can we encourage and enable students to start careers in sustainability?
PART 3: MOVING FORWARD
What do we want to happen?

- What movement-wide strategic decisions do we need?

- To what degree should sustainability efforts be standardised across the movement?

- What (if any) parameters should be monitored across the movement, and for what purpose?

- What do we need to better share resources and experiences on sustainability?
Group Task

In your group, compile lists of measurable/verifiable and realistic goals for the UWC movement that could be achieved:

a) in the next year (2017)
b) in the next four years (2020)
c) in the next fourteen years (2030)
Thank You!