

The Purpose of Further and Higher Education in a Climate and Ecological Emergency

RW Notes

Good Morning everyone.

My task is to speak about the Purpose of Further and Higher Education in a Climate and Ecological Emergency from an Estates perspective. (Other Estates perspectives are available – this is just mine.)

My own professional background is that I am an architectural technologist and Chartered Surveyor so my particular interest is in how our buildings are put together and how we can adapt them in order to contribute to our society's becoming carbon-neutral by 2045.

When I was asked to be one of the speakers at this plenary session, I was wondering which particular angle to address the issue from and realised that the answer was staring me in the face in the form of the excellent strap-line and logo that the organisers have come up with for the conference – the elephants in the room. I therefore want to concentrate on the fact that, in my opinion, one of the elephants in the room is the way in which some of the things we do have a huge impact on our carbon footprint while others have very little impact indeed, meaning that – with our (often limited) resources – we should perhaps concentrate our fire on the significant items even if that means that we take little or no action on the less significant ones.

In the College sector resources for dealing with sustainability are scarce. Even in a large College like Ayrshire, I am the only person with a specific responsibility for sustainability – and I am also responsible for central stores, cleaning and janitorial services as well as all reactive, cyclical and planned maintenance, so I am spread very thin.

Notwithstanding this, like many people in the room I have been spending quite a bit of time recently on our Public Sector Climate Change Reporting Duties.

I have a Strategic Sustainability Working Group of senior curriculum and service colleagues and yesterday I got them to provide internal sign-off on our submission for this year. In addition to showing them the online submission I thought it might be useful for them to see the answer to a question which the government doesn't ask, which is: "what is the breakdown of the institution's carbon footprint in percentage terms?"

I was interested to see what the answer is – in our case it is:

Natural Gas	48%
Grid electricity	44%
Car & van travel on business	5%
Everything else put together	3%

So our gas and electricity consumption together represent a whopping 92% of our emissions – if you add petrol and diesel it goes up to 97% – and I would contend that while other initiatives are praiseworthy in themselves we should concentrate on things that drive down our fossil fuel consumption (bearing in mind that in Scotland electricity is increasingly generated from renewable sources).

This is particularly important given yesterday's news from the World Meteorological Organisation that the level of greenhouse gases is at a record high, with the CO₂ level one-and-a-half times as high as it was in 1750, prior to the Industrial Revolution.

As far as things we should be doing are concerned I think there are three main groups:

1. Those that reduce the need for consumption at source;
2. Those that cut heat losses; and
3. Those that move us toward renewable energy.

On reducing the need for consumption at source, I recently prepared some proposals for our Executive Leadership Team on this and some of these are now being implemented. They included –

- Reducing the number of days on which we run evening classes and the number of buildings that need to be open for this purpose on each campus,
- Cleaning the buildings when they are open anyway rather than opening them in the early mornings and the evenings for this,

- Reducing the size of our estate – in the last five years we've disposed of our interest in six other sites and I would like to continue that trend,
- Possibly most importantly, reducing temperatures throughout. Why do we need to be able to work in our shirtsleeves? And
- Finally, one that I haven't had the courage to suggest yet, which is why are we open during the Easter and summer holidays at all? We don't open schools over those holiday periods so why do we open Colleges?

On reducing heat losses, the key thing that we need to remember is that many of our buildings are always going to be older ones and we should concentrate what little resources we have for repair on projects that cut heat losses – for example, Ayrshire College got £1.8m from SFC last year for backlog repair at Ayr and I spent the lion's share on window replacement and roof replacement.

On changing to renewable energy sources there is much that we can do –

- Ayrshire College cut its emissions by 16% at a stroke when it moved its main Kilmarnock campus from a 1966 building heated by gas to a 2016 building heated by biomass. I know that there is a capacity issue but if we are replacing boilers we should always consider biomass,
- We also have a solar farm and will now look to exploit the fact that our roofs are predominantly flat to expand this provision, and
- At Ayr we are supporting the development of a micro-hydro plant in the River Ayr of which we would become the sole customer.

To conclude, I believe that one of the elephants in the room is the fact that we need to concentrate our fire on the reduction of fossil fuel consumption rather than on other praiseworthy but less significant initiatives and I have offered some examples of things that can be done and are being done.

Finally, bearing in mind the list of specific examples that I've suggested I will shamelessly exploit my position as the first speaker to make the obvious comment that if reducing fossil fuel consumption is indeed an elephant, we should remember the old joke – how do you eat an elephant? One bite at a time!