FRIENDS OF THE SCOTSMAN

How big a role can road haulage play in drive for a zero-carbon economy?

New technologies are evolving, but none may deliver the required urgency at our present rates of reinvestment, writes Alan McKinnon



ll the measures of climate change – global sea level, glacier volumes, ocean temperatures, the arctic icecap, carbon dioxide – are trending in the wrong direction, with tippingpoints that are interconnected.

The latest development is that scientists have found evidence that frozen methane deposits in the Arctic Ocean - known as the "sleeping giants of the carbon cycle"-have started to be released over a large area of the continental slope off the East Siberian coast.

The impact of Covid has been to deliver 15 years of projected carbon savings in just three months. but no-one is suggesting that its other costs are a price worth paying. Many countries have now made impressive commitments to move to zero-carbon economies, but how are they going to deliver: and what part is to be played by the road haulage sector, which is responsible for 3.8 per cent of greenhouse gas emissions but is problematical owing to its reliance on fossil fuels and its projected growth?

Wider options could be to reduce the absolute amount of movement, substitute lower-carbon modes, optimise vehicle utilisation, increase energy efficiency or reduce the carbon content of the energy consumed

Alternatives to reliance on fossil fuels include battery-power, hydrogen, catenary electrification and switching to biofuels and synthetic fuels, with various permutations of hybrid powertrain. These are only as good as their energy sources: how fast will electricity generation switch be decarbonised, and what energy is consumed in producing biofuels, for example the cutting down of forests?

Batteries may simply be too heavy for lorries to hump around, while a network of recharging points may be harder to achieve elsewhere than in a compact country like Britain. Electric catenary might work where the motorway network accounts for the great majority of road movements, with batteries to

take the lorry on trips along local roads, but there would have to be coordination between electrification programmes and the availability of electric trucks. Hydrogen is at present much the most expensive option, awaiting refinement from

greythrough blue to green sources. So the new technologies are evolving, but none may deliver the required urgency at our present rates of reinvestment. With no onesize-fits-all solution on offer, better possibilities for improving efficiency could include improved vehicle maintenance, more environmentally-conscious driving techniques and platooning, as well as modal shift to rail or water transport.

These will have to achieve big gains if road freight's carbon footprint is not to increase owing to the projected rise in total vehicle movements: and while payloads are rising, so is empty running. Introduction of the double-deck trailers made possible by our generous motorway clearances has probably made the greatest contribution to decarbonisation. However, hopes that recognition

of the need for greater resilience might lead to a move away from just in time delivery may prove forlorn since this has become a business paradigm, and only with enforcement of deep decarbonisation could one envisage the sort of collective synchronisation needed to force distributors to share assets

The best hope for progress is for the market to respond to price signals, but if awareness of best practice is to reach down into the fragmented structure of our industry, we must engage with small hauliers, many of whom will be unaware of their emissions until these can be monetised and captured in a digital fashion. There may also be little point in achieving virtue only here in the UK if emissions continue to increase in the devel-

Prof Alan McKinnon, Professor of Logistics at Kuehne Logistics University and Emeritus Professor of Logistics at Heriot-



Put people at the



Invest in community infrastructure and third sector support to tackle the impacts of Covid, writes Sara Redmond

▼he system-wide response that culminated in vaccinations against Covid-19 being administered highlights the significant efforts across a range of industries, services and decisionmakers to help us overcome the Covid-19 public health crisis. These collective efforts show the incredible potential of working together towards a shared vision. Yet, we are reminded of the stark inequalities in society in hearing that medium and lower income countries could be waiting until 2022 to see the vaccines. Attimes like this, it feels more important than ever to maintain a focus on our shared humanity

Recently, the ALLIANCE undertook a significant programme to hear from people across Scotland about their experiences of health and social care during the pandemic and their priorities for the future. We intentionally took a human rights and equalities lens to the design of the activities to ensure that we were reaching out and enabling the participation of a range of groups across the country. What we heardshonealightonthe publichealth crisisthathaslongengulfedScotlandone of persistent, intractable and widening health inequalities.

We heard encouraging examples of individual and community resilience that has been demonstrated under extreme pressures and uncertainty.

A lot of people felt frustrations of uncertainty about the pandemic and the measures being taken to mitigate its impact. There is a detrimental impact to people's mental health and a disproportionate impact on groups in our society who were already facing barriers to accessing their rights, as recently highlighted by the Equality and Human Rights Committee.

For too long there has been an insufficient focus and investment in communities. Cormac Russell, a leading figure in asset based community development, has said: "Health is not some thing we bring to people; it is the net result of a community coming together to use what it has to secure what it needs, including medical systems when required."

The need for an ongoing focus on the factors that support health and wellbeing is why the ALLIANCE strongly advocates for the principles of selfmanagement to be at the heart of the transformation of health and social care. Through our work managing the currently open Self Management Fundandsupportingthethirdsectorin developing and delivering self management projects, we hear the importance of helping people to get a foundation of wellbeingintheirlives, of enabling people to maintain control of their condition and enjoy their right to live well.

The community response to the pandemic highlights the need to stop designing solutions that assume services are the answer to generating and protecting health and well being. At the ALLIANCE we support the call of others to put wellbeing and person-centredresponses at the heart of the ongoing response.

We need to invest in community infrastructure and third sector support. This year has highlighted the value of third sector support and the swiftand professional response it has demonstrated. People have worked together in existing and new partnerships; sharing skills, networks and resources to respond innovatively and buffer the impact of the Covid-19 pandemic.

This joint working needs to continue

with the same level of shared purpose and intensity to support the longerterm impacts from this pandemic and in tackling the persistent inequalities.

Our engagement work echoes the findings from other organisations about the important contribution the third sector makes to advancing equal ity and protecting and advocating for people's rights. Considering the nature of third sector funding and short-term funding cycles, there is a genuine concern regarding how we can sustain these positive developments as this public health crisis continues.

Pfizer-BioNTech COVD

DILUTE BEFORE USE

Discard 6 hours after dis stored at 2 to 25°C (35 to)

We will recover; to recover stronger we must pull together the strengths and assets of everyone in our society and build a fairer, more equal Scotland with support and services that put people at the centre.

Sara Redmond, Director of Development and Improvement, Health

and Social Care Alliance Scotland

professional at the clinic. With home

abortions, however, appropriate and

↑ Frontline health and social care workers have been among the first to recdeive the Pfzier/BioNTech vaccine



Think twice making home abortions the new normal

We should not be treating the remains of embryos as worthless waste, says Calum MacKellar

ince 2017, partial home abortions have been possible in Scotland for medical terminations. These usually take place in the first ten weeks of gestation, whereby a woman is given two sets of pills. The first (mifepristone) is generally taken in a clinic and obstructs a hormone which is necessary for the uterus to support the implanted embryo/foetus. The second pill (misoprostol) is taken at home (if the woman so wishes) two days later and causes the lining of the womb to break down, resulting in the uterus contracting and expelling the dead

embryo/foetus However, since the end of March 2020 and in the light of the risks of Covid-19 infection, a woman seeking a medical abortion can now take both sets of pills at home if this is consid-

ered appropriate. And because of this precedent, the Scottish Government is consulting until 5 January 2021 whether this arrangement should be made id-19 recedes.

One significant challenge, amongst others, with these partial or complete home abortions, however, is the destinyoftheremains of the embryo/foetus. Indeed, when the termination occurs in a clinic, these remains are usually placed in an individual box with appropriate respect. The woman then signs a consent form giving permission for them to be sent to a mortuary to be forwardedtoalocal crematorium, though the ashes are not generally available to the woman. Alternatively, if she wishes to make her own arrangements for the disposal of the embryo/foetus, the woman can approach a healthcare

sensitive respect for the disposal of the remains of the embryo/foetus does not generally take place since these are usually flushed down the toilet or discarded as waste in another manner. An outcome which may cause considerabledistresstosomevulnerablewomen having an abortion as well as the persons supporting them at home. This may happen because of their possible grief, especially when they see the dead embryo/foetus, which is up to 3-6cm in size at about ten weeks of gestation and which ends up in the sewage. It may also create very significant trauma to other professionals, such as sewage and plumbing professionals, if they ever encounter these dead human embryos/foetuses in the course

of their work

In addition, Scottish law has never considered the remains of an embryo/ foetus, or those of a deceased person who was born, as worthless waste $because of the \, respect \, ascribed \, to \, past$ lives. A respect which would be completely undermined if the remains of the dead were considered as being just waste or even rubbish.

centre of services

Moreover, in Scotland, deciding the value and worth of an embryo/foetus, or a person who has been born, has never been the responsibility of a sin-

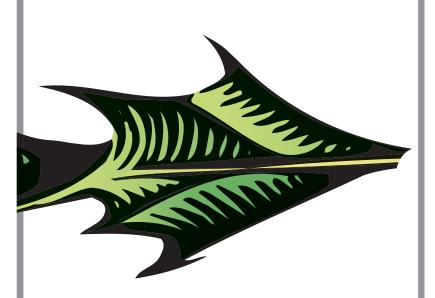
it has always been the remit of society as a whole. This happens to protect it from degenerating into barbarity or into a moral wilderness. Scottish society cannot, therefore, continue to let the remains of embryos/foetuses simply be discarded as worth-

gle or a few individuals. Instead,

Dr Calum MacKellar, Director of Research of the Scottish Council on Human Bioethics



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