Scottish Environment LINK
Circular Economy for a Fairer Footprint

Pathways to a Circular and Resource Efficient Economy

A Seminar on policy and legislative options to further the circular economy in Scotland

5th December 2018

REPORT

By Phoebe Cochrane, Scottish Environment LINK

CONTENTS

1 INTRODUCTION

2 PRESENTATIONS AND QUESTIONS

3 DISCUSSION GROUPS

4 PATHWAYS ROUND-UP

5 **CONCLUDING THOUGHTS**

ANNEXES

AGENDA

PARTICIPANT LIST

1 INTRODUCTION

The seminar, ***Pathways to a resource and energy efficient economy***, held 5th December 2018, was organised under the Scottish Environment LINK project, *A Circular Economy for a Fairer Footprint*, funded by Friends Provident Foundation. The aim of the seminar was to:

- Bring together individuals with expertise relating to the CE to seek views on the main opportunities to further the circular economy in Scotland and means of achieving them.
- Discuss what needs to change in terms of legislation and policy and at what levels (ie local, Scottish, UK, EU).

This report summarises the main points made during the course of the day and offers a few concluding thoughts to take forward from the seminar.

2 PRESENTATIONS

Matthew Crighton, Convenor of the LINK Economics Group - *Welcome*.

Link to Matthew's slides

Today LINK wants to focus on what is most likely to achieve our aspirations with regard to the circular economy. We want to be clearer about the obstacles, what tools to use to overcome them, and what models are useful to follow.

We have mapped out our members interests in a CE. For example, ARPS and the Have You Got the Bottle campaign for deposit return; the Marine Conservation Society campaign on marine litter; concern about the agricultural economy, the state of soils, the nitrogen budget, the use of horticultural peat; climate change; and, lastly, the decommissioning of North Sea soil infrastructure and repowering of older windfarms. We have picked out these topics for the breakout groups but welcome thoughts beyond these areas.

How are we doing? Data shows the use of 'circular material' amongst European countries, where the Netherlands are the leader and the UK performs around the middle; and UK domestic material consumption over last 16 years, which has dropped a bit and then flatlined. Analysis using the Oxfam doughnut framework shows whether countries are achieving social objectives without exceeding planetary boundaries. The UK, along with others, has a lot of work to do to get within planetary boundaries.

A few questions. Is it a CE or a more CE? Is the aim to be more resource efficient, or have a smaller resource footprint or possibly both? Our project is focussed on a *fairer* footprint, as we believe that a smaller resource footprint is an environmental and moral necessity. There are big issues of data and measurement, and we are looking forward to hearing about that from Zero Waste Scotland. It seems that circularity is harder to measure than resource use, so there is consideration about how much we can know about circularity in our economy.

What is the scope of a CE? The contrast between a circular and linear model is most easily applied to materials input, but conceptually it can be wider, like agriculture or energy. Can it be a defining frame or is it just a contributing element on material flows? Is it really about economics? It seems most at home in waste management, but we need to think of economic systems.

Theory of change matters a lot. To move more sustainably towards a CE will require lots of change, and system change involves taking on the powers that be. Is the idea of a CE a challenge to them, or can it be achieved in incremental shifts? The concept is applied at both ends of the spectrum. Much focus is business oriented, to do with increasing profitability. But conceiving an economy where materials flow indefinitely is radical and needs system change. Who are the agents of change? Clearly business, government, consumers, NGOs, all come to mind. The Ellen McArthur Foundation states that businesses are driving the shift. That may be true in some areas, but it is not enough. The problem is that we are dealing with externalities which no individual business is accountable for.

One practical tool is the EMF's CE Policy toolkit. It identifies 6 policy types, listed. Of these, regulatory and fiscal frameworks are the most important for reducing materials. We can look at these in the Scottish context. For

example, extended producer responsibility. What powers do we have? We all have ideas, and it would be good to get a shared view of what are most likely to succeed.

Louise McGregor, Zero Waste Scotland – *Where we have got to in Scotland's CE Journey* (slides available)

Link to Louise's slides

The presentation will give a flavour of the journey Scotland has been on for the last 4 years, and the challenges and plans ahead. Zero Waste Scotland is core funded by SG, and currently has additional ERDF funding; it has been working on the CE for 4 – 5 years, and has CE expertise.

Achievements to date.

- Making the case for change: What are the opportunities for Scotland, and how to sell it. Government was keen to identify the scale of the opportunity so, with partners, we developed an evidence base - a report by the EMF, and some sectoral studies identifying opportunities.
- Collaboration: Government did not decide to this by itself, the enterprise agencies, SEPA and waste and economic teams were involved. As the Making Things Last Strategy came together, it was consulted on across government.
- Zero Waste Scotland is well funded: from the Zero Waste (SG) and ERDF (to end of 2022).
- Making Things Last: a lot of the evidence was used to develop this strategy. It is a good starting point and has some clear priorities for action.

Examples of businesses that Zero Waste Scotland have worked with. Not all are new - eg John Mackie has built up a business remanufacturing and exporting Torque converters over 30 years. Bute Brewery, supported by Zero Waste Scotland's Circular Economy Business Support Service, teamed up with a bakery on Bute and uses waste bread to make beer. Zero Waste Sscotland are currently supporting about 130 companies, with the intention of demonstrating the art of the possible.

In recognition for its leadership, Scotland won the CE award in 2017 presented at Davos, and we hosted the 3rd hotspot event, adding to our leadership reputation.

The main challenges ahead.

- Sustainable Development Goals as a framework for thinking about the world - it places what Scotland does in context. Recent OECD research suggested the world is on track to double resource use by 2060. The CE concept touches on a few of the SDGs. These highlight the interconnectedness of the world now.
- Setting targets and measuring progress for Scotland. Zero Waste Scotland has done quite a bit on this, but we don't have a robust method of measuring progress towards a CE at the moment.
- Collaboration across supply chains is complex. Do we need incremental or radical change - we see it as the latter, which requires everyone to work together. In Scotland, we have a high level of imported goods and a lot of SMEs which adds to this challenge.
- Innovating existing business models. There are big risks and challenges for business, the profit motive is really strong, so how do we move to a more socially responsible business culture.
- Embedding changes. We have been working with the willing up to now, about 130 SMEs. There are many more businesses not changing. How do we embed what we have been doing with the 130 across the business community and the public sector.
- Incentivising and not having kneejerk reactions. Example of the Blue Planet effect – there are no simplistic solutions, like banning all plastics. Heriot Watt study published recently on the potential impacts of bans.

Plans moving forward.

- CE remains a priority and gets embedded into other government documents. There is potential to get more EU funding to extend the support programme for enterprises.

- Developing the Deposit Return System for Scotland, helping consumers understand the value of materials and getting the resources back into the system.
- Consideration of Extended Producer Responsibility. We think producer responsibility can play a significant role in increasing circularity.
- Manufacturing. Scotland has quite a lot in niche areas. The National Manufacturing Institute for Scotland is being established and we need to get CE embedded into this.
- Food waste action plan. We have a target to reduce food waste by 33%. Plan due very soon covering behaviour change and legislative approaches and guidance.
- SG Expert Panel and advisory group has brought in external experts to look, initially, at single use plastics and how to avoid them ending up in the environment; and changing producer and consumer behaviour.
- Working with the other UK nations. UK autumn budget announcement for a tax on virgin packaging products is quite an encouraging measure that will give a market for recycled products and encourage the right sort of behaviours.

Questions.
Do we know where the CE bill has got to?
No, Zero Waste Scotland doesn't know and has been given no timescales, although we still anticipate it.
Internally Zero Waste Scotland has been working on some ideas for a bill and we are waiting to get the push from government on it.

Is there any advice regarding better or more frequent reporting of consumption related carbon emissions in relation to the Climate Bill currently going through parliament.
Zero Waste Scotland hasn't engaged in this in relation to the Climate Change Bill, although it is something we support. Countries report on territorial emissions, so are not accountable for those emission occurring outside their country which are directly related to economic activities. For example, consumption in western countries offshoring carbon to China where much of our manufactured goods come from. Zero Waste Scotland is in favour of consumption reporting -it gives you a fuller picture and moves you towards decisions to re-shore activities to areas with low carbon grids. Scotland has one of the lowest carbon grids in the world so it would make sense to bring energy intensive processes to Scotland, and we are proponents of that.

Question about reuse targets which have been discussed for about 20 years.
Zero Waste Scotland is not working on this, but it could be something to recommend, potentially quite useful. There is some work which tries to measure the sales from re-use stores which provides some data. It could be a way of measuring circularity, there is an argument for it.

Comment - CE is about eliminating waste, not about recycling. It requires a fundamental rethink on designing goods and services. We are a long way from it, many things are currently impossible to reuse.

Comment - Business tend to see NC and CE as more or less the same issue, unless our asks of business are coherent there is a risk of them – intentionally or unintentionally – feeling they have done enough. We need to encourage a holistic approach from them and not a focus on single issues like carbon, plastics, water etc... whilst also recognising these can be a starting points for them.

Michael Lenaghan, Zero Waste Scotland - ***Material flow data for Scotland*** (slides available)

Link to Michael's slides

The CE can be seen as a demand side approach to climate change. Most of what we have been doing to date on climate change has been to reduce marginal carbon intensity - making travel, energy production etc less carbon intensive. However, demand is outpacing the rate of decarbonisation so overall emissions increase. The CE is about reducing demand. If you can reduce demand too, you get a net reduction. Both are fundamental.

You can't manage what you don't measure. With regard to the CE, our ability to measure is inadequate at the moment. We need sophisticated data to enable us to develop targeted policy interventions and measure progress over time. If you look at energy policy, we have really good data at various scales - household, regions, national. So

too with finance. Not so on materials, where data is really poor. At the macro scale we have no idea how much we use.

Mass is to the CE what £s is to finance. It provides the lens. We need to know what is entering and exiting our economy. However, no one measures it. You cannot trace a ton of steel from start to finish. There are four main material flows– domestic extraction, imports, exports and waste. We need to know about all of these. For imports and exports we need to know about the products and materials coming into and leaving the country – for example, 20m computers contain a lot of different materials. For domestic extraction, for example timber production, fish landings, or quarrying; we have some data. Waste is the one area where we have a high quality data set.

What can you do with Material Flow Accounting:

- Direct material inputs (imports + domestic extraction) is the material impact of the economy. Not just the imports but also the additional activity that was needed in the country of origin. This is the key material effects of our consumption.
- Domestic Material Consumption (inputs - exports), can be measured as a total or per capita.
- Physical Trade Balance can be worked out (imports – exports).
- We can also measure our absolute and relative decoupling which is important for the CE. We can increase our efficiencies if for each additional unit of GDP we use less materials. But if total amount of material is still going up, we have a net total increase. We need to see a net reduction – this is the overall objective.

Very few countries have material flow accounting (MFA). Eurostat has a form of it and, although not comprehensive, it is a good example and offers some insights. Japan and Netherlands also have forms of MFA - all are works in progress. It is a new way of thinking and we expect to see more countries developing it. Scotland wants to join this select group and, if we are serious, we need to do this. Our first attempt of an assessment was in 2015 when we worked with the SG input- output team. Using our waste data and applying what we know about waste, we made an attempt to estimate total material consumption. It was a first snap shot of material flows in Scotland. We estimated that ¾ of the carbon footprint we have is due to material consumption.

Using a traffic light assessment of where we are in getting data for the four flows. Every country has got waste data and understands it well and that's what we find easiest to think about. The next best is data on our own material extraction. Particularly tricky is data relating to materials in imports and exports. The fact that Scotland is not a nation state means that we don't have the same level of import / export data as other countries. This is a challenge going forward.

We are developing an initial MFA for Scotland which will need to be constantly updated.

Mal William, Zero Waste International Trust – ***Beyond recycling: building on success in Wales*** (slides available)

Link to Mal's slides

Wales has a recycling rate of 64% (2017 data) and is about to be top of the world league. Data is really important and encourages thinking. We have to live as if there is only one planet. We went from a recycling rate of 3% in 2000. The Landfill Directive was very important. A strategic approach was necessary, and government drove it and implemented it, and put money behind collection of separate materials. We still have 7 LAs not following the protocol, but they are coming round to it.

Looking at the last 36 % and the reuse strategy. Another 16 - 18% should be easily achievable, by educating / nagging. The final 10% will be more difficult. Governments need to govern. EU directives are written logically. Looking at the reuse agenda as a trawling and fishing event and destock houses and businesses of their surplus stock and setting up community organisations to make use of it.

There is an example of a town in Brazil, Curitiba, where the mayor made materials valuable by making them exchangeable for bus tickets and services. Within 3 months the city was clean. People were educated to value their materials. Never believe you cannot have an influence.

There is a much bigger agenda than we are talking here. The biggest area of growth is in the distribution sector. If you take away the warehousing and trucking, 76% of what we do (in jobs) is a waste of time. Lots of current jobs are superfluous. This is challenging for making sure the economy goes round, which is where universal basic income comes in.

Jacqueline Cottrell, Green Budget Europe – ***Findings from project 'Best practices and fiscal reform for a circular economy in Finland'*** (slides available)

Link to Jacqueline's slides

This study, *Best practice and fiscal reform for a circular economy in Finland*, looked at what could be achieved by fiscal policies to realise the goals of Finland's CE roadmap (2016). Fiscal incentives currently generally align with the linear economy and there is not enough of an imperative to value resources.

We need a tax shift from labour to natural resource use. If you increase the price of resources going in to the economy, it will motivate people to value them. Currently tax rates are high on labour, but we want to incentivise a more labour-intensive business model, so this needs changing.

The Road Map has four areas: sustainable food system; forest based loops; technical loops, and transport and logistics. The project involved a process of exploring what might be feasible in terms of shifts in taxation with all stakeholders as recommendations will have to get through the Parliament and be supported by the lobby groups.

The project suggests raising revenue across a number of areas, with changes phased in over 7 years, resulting in an increase in revenue of EURO 3,502 million. This increase in revenue would be balanced by, for example, reductions in labour linked revenue streams, increase in renewable energy subsidies and other adjustments. The result is revenue neutral and the focus is on a fairer society.

Modelling shows that the suggested changes would lead to absolute decoupling of growth from resource use and redistribution of income benefiting the poorest quintiles. It also looked at the impact on employment in different sectors. There are benefits for business, which is really important as they have to be onside, not necessarily the drivers, but they need to see added value.

Jenni Hume, HYGTB, and Abigail Entwistle, FFI: Deposit Return and Microbeads: *the why and how*

Jenni Hume, Have You Got the Bottle
Can you tell us why an organisation like yours chose to select this to campaign on?
Our *Have You Got The Bottle?* campaign was launched in 2015 to urge Scottish Ministers to introduce a Deposit Return System for all drinks containers. In a deposit return system, consumers pay a small deposit when they buy a drink in a container, which is refunded when the empty container is returned. We were initially interested as our members were upset about litter in Scotland's rural places and we'd learnt about the effectiveness of deposit return systems for reducing litter and encouraging behavioural changes in the countries they already operate in. However, we quickly recognised the other benefits, including a boost recycling rates, creation of jobs, saving for local authorities, carbon reductions and a shift towards a more circular economy.

What powers, legislative or regulatory, were the most important for getting successful outcomes from your campaign?
The idea of Scotland having a deposit return system is not a new one. In 2007, two primary 7 pupils sent a petition to the Scottish Government calling for a deposit return system because they were fed up of their dogs cutting their paws on broken glass.

In 2009, Richard Lochhead, who was Cabinet Secretary for Rural Affairs, Food and Environment until May 2016, included deposits in the Climate Change Bill. This provided the necessary primary legislation, which enabled later

decisions to introduce a deposit return system to move along more quickly. In this regard, Scotland is ahead of England, where the same primary legislation is not in place.

With the primary legislation in place, we saw an opportunity to campaign for an issue that was already consistent with Scottish Government policy. Those who supported deposits inside Holyrood welcomed an external voice that showed the breadth of support from members of the public and key stakeholders.

Three of the five parties in Holyrood mentioned deposit return in their 2016 manifesto.

In early 2017 a subgroup of the ECCLR committee was established to look specifically at deposit return, and around the same time a pro-deposit return Parliamentary Motion received cross party support from a majority of members. By June of that year, Zero Waste Scotland were asked to investigate system design options. By September 2017, the First Minister announced a commitment to introduce a deposit return system in her Programme for Government.

Since then the public consultation has been completed, and the next stage is for the Statutory Instruments to be laid before Parliament.

What advice would you give to anyone starting a similar campaign relating to a more circular economy in Scotland?
Present a manifesto for the Bill well before it comes to public consultation.
Build a wide external coalition if possible: not just environmental NGOs but community groups, specialists, businesses, councillors (and whole councils if you can) - anyone appropriate to the specific issue.

Abigail Entwistle, Fauna and Flora International
Can you tell us why an organisation like yours chose to select this to campaign on?

- FFI is a biodiversity organisation; and based on emerging research we could see the potential impact on marine life from microplastics – something that ten years ago was a pretty niche issue.
- Back in 2009 we identified microbeads as "low-hanging fruit" – not the most impactful source of microplastics, but one that it would be relatively easy to address due to direct routes to the sea, the existence of alternatives and the resonance with people's day to day consumer choice, which could help shine a light on the wider microplastics issue.

What circumstances were most important for getting successful outcomes from your campaign?

- We had been working (in partnership with MCS) to directly lobby companies to commit to remove microbeads from their products, and we were seeing significant success with a range of companies taking this on board, and had a public petition on the issue.
- At the end of 2015 Obama passed a Microbeads Bill in States, which created a precedent. On the back of this Greenpeace launched their own public petition on the issue which saw unexpected support, and this was able to trigger a discussion by the Westminster Environmental Audit Committee. A coalition was developed between Greenpeace, FFI, MCS and EIA which drew on our respective strengths to help make the case and opportunity for this legislation, which was also undoubtedly helped by the wider political climate at the time.
- In addition, the fact so many of the larger companies had already committed to remove microbeads meant that they were keen to see a level playing field, and thus we were able to bring industry support (rather than outright opposition) to the debate.

What advice would you give to anyone starting a similar campaign relating to a more circular economy in Scotland?

- There is a clear political opportunity – the political focus on plastics has helped shine a light on wider resource use and circularity issues, and we need to harness this and broaden the debate beyond plastic as a single material.
- Understanding the legislative process was important – and this is something we had to learn on the job and from our NGO partners; working to pool skills with other NGOs and sectors was key, as was being able to show constructive engagement with industry and having tried a voluntary approach before resorting to legislation was important.

Questions to the panel.
We are doing the right thinking and there is interest in Scotland being a leader, but the whole transition is happening far too slowly. What are the priorities to creating a faster transition?

Are there any problems with the emphasis on mass as the main measure for MFA? Does mass adequately reflect impact?

When looking at Finland, and 6% reduction in carbon over 7 years, isn't the real problem economic growth, isn't this just the issue of externalising costs under capitalism?

Discouraged about riots in France about fuel prices. How do we achieve that change in society?

In the Finland project, there seemed to be no feedback mechanism for investing the revenue in the asset that was depleted. Those will remain depleted if they are not invested in. Peat is an example. Was any thought given to this?

Reflections: on presentation on Finland and the decoupling of GDP from CO2 output - part of the problem is that GDP is the metric; on HYGTB and Microbeads, the first was brilliant at using levers we have in Scotland, and the other was mixture of the 4 country approach.

The idea of taxing resources rather than income been around a long time. What parts of that can we do in Scotland, and bearing in mind the graph showing its going to benefit poorest best, how do we work it through and get the 'yellow jackets' on our side. You can be easily derailed by popular uprising and politicians getting frightened.

We can't use the old jargon, GDP is dead, a facile measure. Huge system is the villain, unfettered greed. We are all part of it, look into our own hearts and propagate that message. And if you eliminate waste you use the same resources to do four times as much.

Can we link the Planning Bill into this discussion on the CE. On a day to day basis we are developing absolutely everywhere. Enough. Planning should come into the discussion.

Ambition is not high enough and capitalism is a real problem. What you can do with fiscal policy is beat capitalism at its own game. Lots of countries are in the carbon alliance on pricing. What is being looked at in Finland is just removing the subsidy on fossil fuels, not actually charging them. The situation in France has, in part, been caused by lack of communication by Macron.

Weight metrics can be complemented with carbon metrics – they are complimentary. Having carbon factors for material is only valuable if you have the material data. The carbon lens adds value to material data. You can develop more informed targets and policy etc. Additionally, a carbon price is really important, we need to be really aggressive on it, and communicate it well. We also need to stop subsiding the very things we want to discourage and include variable pricing on primary and secondary materials. Transparency is key on materials used in flows. For example, there is a perception that packaging is free and how can you make an informed decision if you cannot see the price of it. Estimate about 7% of grocery shopping bill is paying for packaging. By hiding this information from consumers, we remove potential for them to put pressure on producers. We need to shift from supermarkets as shelving space for packaged products to refilling space. Retailers are not interested in it. Is more complicated for them, but far better for the environment.

Every business person needs government to be government, and meantime they pay millions to prevent them.

3D printing is radically changing the way we do things, economies of scale apply less and huge factories are no longer justified as you can supply demand locally. This area is progressing very fast. All you need is the software. In the future we will have local markets. Tastier food, better soils, fewer trucks, time to be poets and guitarists.

Important to say that in absolute decoupling, efficiency needs to outpace growth, it is not a perpetual system. However, the CE is currently about finding low hanging fruit. We are not ready for the conversation about growth, but lots of serious gains to be made in the meantime.

3 DISCUSSION GROUPS

Three discussion groups looked at three different areas in terms of obstacles to increased circularity, possible tools to overcome and models or examples of good practice.

3.1 Farming and forestry.

Obstacles:

- Lack of knowledge amongst the farming community
- Many primary producers are low FTE businesses. Lack of time and resources to learn, explore and finance new approaches
- CAP and other incentives
- Culture of being policy / funding lead
- Externalities, for example cost of fertilizer and other agro-chemical don't reflect environmental / social cost
- Lack of will from producers and public – essentially very cheap and easy to not be circular
- Biodiversity is infrequently considered in terms of cycling – need to improve our understanding of natural processes within a CE model – need to put biodiversity back to solve problems.
- Tied into chemicals from suppliers
- Low price of food and power of supermarkets. Producers often forced to create externalities to break even.
- The move towards specialisation and away from mixed farms.
- Unintended consequences, eg farm plastic regulations leading to burying of plastics
- Poor uptake of digestate from plants

Tools to overcome

- Education, especially in agriculture courses and rural colleges
- Investment in infrastructure (eg recycling of farm plastics)
- Pooling of agriculture machinery resources
- Reformed rural support system that focuses on public money for public goods, including biodiversity, soil health
- Nitrogen budgets / quota and for other inputs. Farm level / Scotland level?
- Tax on non-renewable/ unsustainable resources, making the use of digestate and other organic material more financially attractive
- Localisation
- Trials, demonstration
- Using a natural capital lens to improve biodiversity.

Models/ examples

- Denmark example of nitrogen budgets.

Other comments / opportunities

- Feeling of a loss of the old ways – we used to do a lot of circular things, we now don't e.g. bringing milk bottles back, buying more locally, reusing jars etc…
- How are we using our agricultural land in Scotland. Much of it isn't producing food.
- JHI – farming of the future could be very different with vertical and other enclosed circular systems.
- Offer of potential trials or discussions from Aberdeenshire council
- Real sense of personal reasonability around this issue

3.2 Plastics

Obstacles

- Bringing all stakeholders into the conversation
- Structural obstacles such as the complications of trying to use devolved powers for EPR
- Trying to get agreement with DEFRA
- Avoid switching to other harmful materials
- More transparency, especially recycling (the 30% target will force transparency)
- Planning and consumerism
- We need to take a holistic approach, which can cause delays.
- Need a stronger evidence base
- Behaviour change
- Don't make anything worse and change it while we can still remember.

Tools to overcome

- Learn from other countries
- Important to understand consumers
- Consider what will it look like in practical terms for all
- Application of innovation
- Support and funding that values work with industry to put things into practice
- Better relationship between activists, academics and industry.
- Speed up transition and consistency

Good examples / models

- Speak to actual people, learn about practicalities
- Create choice in marketplace
- Government pressure on industry
- Level playing field – standardise materials

3.3 Energy and energy infrastructure

General points

- Fossil fuels can not be circular
- Renewables – circularity depends on infrastructure
- How can circularity be built in whilst enabling R and D and technological change?
- What expectations about circularity are built into government support for business?

Obstacles

- Scale and complexity
- Existing infrastructure
- Speed of technical change
- Costs of change
- Buried assets, such as pipelines, could become stranded assets
- Technological lock-in
- Pressure from rising demand
- Political will
- Popular awareness
- Fragmentation of sectors
- Poverty and inequality
- Market driven – rewards profit and growth
- Lack of transparency

Ways of overcoming

- Sell services not products (heat not power)
- Extended producer responsibility
- Conditions on retailers
- Deposit return schemes
- Re-use targets
- Refit targets
- Procurement
- Virgin material disincentives
- Planning policy and legislation
- EPR
- Lifecycle analysis of products

4 PATHWAYS - Regulation / policy change needed

In a short wrapping up session, participants were invited to suggest ideas for policy change and whether it would be appropriate for a CE Bill or could be achieved by alternative mechanisms.

Potentially in a CE Bill:

- Targets – resource footprints, % of recyclate content, nitrogen
- Duty to prepare policies and plan to meet targets with timescales and outputs identified
- Phase out dates for some materials
- More / updated powers to regulate or ban materials (currently under 1990 Wildlife Act)
- Full supply chain accountability
- Transparency and data
- Longer warranties
- Product eco-design standards
- Vision and principles
- Fairness and justice – regarding where costs fall
- Taxes and charges (remembering taxes are generally reserved and need to be ringfenced to meet devolution requirements)

Other:

- Education (especially for producers in the primary production sector)
- System change
- Harmonisation
- CAP reform
- CFP reform.

5 CONCLUSIONS AND NEXT STEPS

The seminar fulfilled its aims of bringing together a group of people from various sectors with expertise and interest in the CE who contributed ideas and insight as to how the CE might be progressed in Scotland. Presentations and discussions were interesting and fruitful and the LINK *Circular Economy for a Fairer Footprint* project will build on what we learnt. We trust that others will also take forward ideas from the seminar in their own work. There was a strong sense of wanting to collaborate and we hope to build on this in the next stages of the project which will be to develop a manifesto for a CE Bill for Scotland. We envisage this being co-developed and supported by a range of organisations.

AGENDA

Arrive from 9.00. Tea and coffee

Part I - Presentations
a) Setting the scene

9.30: Matthew Crighton, Convener of SE LINK Economics Group – *Opening presentation*

9.45: Louise McGregor, Zero Waste Scotland - *Where we have got to in Scotland's CE journey*.

10.00: Questions and Comments on *Setting the scene* presentations

b) Food for Thought
10.15 Michael Lenaghan, Zero Waste Scotland – *Material flow data for Scotland.*

10.25: Mal William, Zero Waste International Trust – *Beyond recycling: building on success in Wales*.

10.35: Jacqueline Cottrell, Green Budget Europe – *Findings from project 'Best practices and fiscal reform for a circular economy in Finland'*.

10.45: Jenni Hume, HYGTB, and Abigail Entwistle, FFI – *Deposit Return and Microbeads: the why and how*.

10.55: Questions and comments on the *Food for Thought* presentations

Part II – Group discussions
11.15 – 12.15 Group discussions.
Facilitated group discussions to tease out the policy and regulatory changes needed and at what level. Each is asked to identify the main obstacles to circularity, the best tools to overcome these obstacles, and good examples or models if known, starting with, but not limited to, consideration of issues in one of three sectors.

- **Group I: Forestry and farming**
- **Group II: Plastics**
- **Group III: Energy infrastructure**

Part III – Next steps on Scotland's Pathway
12.15– 13.00
Summaries from the group discussions and reflections on the day
Open question and answers

13.00 – 13.30 Lunch and networking

Participants

NAME	ORGANISATION
Joel Evans	Aberdeenshire Council
Martina Zupan	Alterwaste Ltd
Kathi Kaesehage	Circular Economy Research Network (CERN)
Erin Scott	CIWM - Chartered Institution for Wastes Management
Matt Lewis	Community Resource Network Scotland
Michael Cook	Community Resource Network Scotland
John Ferguson	EcoIdeaM
Mayan Grace	Edinburgh Chamber of Commerce
Kate Sang	Expert Panel
Abigail Entwistle	Fauna and Flora International
Ross Spalding	Fife Council
Matthew Crighton	Friends of the Earth Scotland
Jacqueline Cottrell	Green Budget Europe
Jenni Hume	Have you Got the Bottle
Denis Mollison	Hebridean Whale and Dolphin Trust
Diane Duncan	Highlands and Islands Enterprise
Catherine Gemmell	Marine Conservation Society
Calum Duncan	Marine Conservation Society
Sophie Unwin	Remade network
Karen Paterson	Scottish Environment LINK
Phoebe Cochrane	Scottish Environment LINK
Alice Walsh	Scottish Environment LINK
Daphne Vlastari	Scottish Environment LINK
Andrew Forsyth	Scottish Government
Caitlin Stott	Scottish Labour Party
Alex Jones	Scottish Whisky Association
Beryl Leatherland	Scottish Wild Land Group
Bruce Wilson	Scottish Wildlife Trust
Andrew Sullivan	SEPA
Tom McKenna	SNH
Rebecka Bergh	SNH
Gareth Quinn	SNP
Alexa Morrison	SPICe
Sam Gardner	WWF Scotland
Mal Williams	Zero Waste International Trust
Louise McGregor	Zero Waste Scotland
Michael Lenaghan	Zero Waste Scotland
Katie Ferrie	Zero Waste Scotland
James MacKenzie	