

National Planning Framework for Scotland (NPF4) – Call for Ideas Response to the 5 key questions

1. What development will we need to address climate change?

What we will need to do to reach the target of net zero emissions by 2045

Change attitudes and behaviour through government and public sector action and engagement on understanding the impact of our energy consumption, food consumption and food miles, travel mode and needs. City leaders across all of Scotland be encouraged to adopt initiatives like CURB-

<https://www.worldbank.org/en/topic/urbandevelopment/brief/the-curb-tool-climate-action-for-urban-sustainability>

Encourage communities to engage through younger generation action and provide opportunities/technology to measure and report and record success of communities, organisations and individuals

Energy:

In the next 20-25 years we need to aim to become an ‘all renewable energy’ country. This will require:-

- a fully designed, assessed and **integrated national infrastructure, land use and landscape plan** that positively contributes to our landscape, biodiversity, health and well being
- a bold vision which sees a modal shift away from car dominance and towards investment and public use in active travel and cheap public transportation in both rural and urban environments. All public and private transport to be electric/ hydrogen/ biofuel
- substantial investment in energy infrastructure types - repowering of existing windfarms; solar, pumped hydro, hydrogen and tidal energy, new onshore and offshore wind, geothermal/ground source. Development of offshore power production may mean that our iconic Scottish landscapes may not need to change in order to become more ‘resilient’.
- substantial investment in infrastructure to move energy around – island interconnectors; fine grained electricity and a flexible high voltage electric network; better management of electricity/ smarter grids ; energy storage systems coupled with a strategic approach to EV across the whole of Scotland.
- Import thermal energy from Iceland/ utilise to create hydrogen / export surplus energy to England and N.Ireland
- Promote CHP, carbon neutral initiatives e.g. RHI, FIT, solar, wind, renewable – through CAP, FWPS, WIG.
- Building standards to mandate that all new developments are energy efficient or passifhaus standard and existing buildings should be retrofitted
- cease production from on-shore oil and gas reserves and ban all sales of diesel fuels for road vehicles/ trains/ ships/ domestic heating and machinery

Biodiversity, landscape, nature and food

- Greater commitment and incentives for local food production and supply chains.
- Biodiverse woodland creation including urban woodlands with commitment (financial and resources) to manage with collaboration between agencies and authorities to ensure a cohesive approach.
- Protect and maintain existing woodland cover in accordance with the woodland management plans now required following the new TCP Scotland amendments
<https://www.aberdeenshire.gov.uk/planning/plans-and-policies/aberdeenshire-local-development-plan-2017/ldp-sg-8-the-forest-and-woodland-strategy/>

<ul style="list-style-type: none"> • Government to think of alternatives to sitka spruce as the primary forest crop to ensure resilience and address opportunities for net biodiversity gain or long term carbon capture. • Promote Environmental Net Gain and Biodiversity Net Gain (ENG/BNG) as mandatory for all government and public sector actions. This would feed into the planning process for new developments that should include infrastructure. Ensure collaboration that enables ENG and BNG to extend beyond the restrictions of a red line boundary. • Continued ban on peat extraction of viable or restorable peatland (with associated peatland restoration and management). Resolve extraction needs for the whisky industry with Scottish Whisky Assoc., SNH and the Soil Association.
<p>Waste</p> <ul style="list-style-type: none"> • Commitment to the Circular Economy across all sectors and activities and efficiencies in using less for an efficient living system • greening the supply chain – public sector to lead by example through the procurement process
<p>Short-medium term incentives:</p> <ul style="list-style-type: none"> • Provide tax incentive to environmentally friendly companies that promote biodegradable and recyclable no-harming products • Promote plastic bottle deposit schemes, no-single use plastic, biodegradable and recyclable packaging; this could all be integrated into a green supply chain for national governmental organisations such as schools, libraries, local authorities, council buildings etc • Promote carbon off-setting e.g shell petrol, ecosia search engine (plants trees),green supply chains. • car ‘deposit’ scheme to return cars for recycling or promoting the use of biodegradable/recyclable products in manufacturing. There is huge potential in this sector to become more environmentally friendly – even if it is offsetting (e.g Shell petrol carbon offsets)
<p>Enforcement of compliance through procurement channels eg</p> <p>https://www.carbontrust.com/what-we-do/assurance-and-certification/pas-2080-carbon-management-in-infrastructure</p> <p>https://www.bsigroup.com/en-GB/our-services/product-certification/product-certification-schemes/pas-2080-carbon-management-in-infrastructure-verification/</p>
<p>What opportunities would this provide to support jobs and the economy?</p>
<p>Scotland is already one of the most advanced countries with renewable energy generation and could develop this sector further aimed at future export which would generate opportunities:-</p> <ul style="list-style-type: none"> • Wind turbines manufactured in Scotland, to encourage jobs and the economy rather than just having the knowledge base in Scotland and production base elsewhere. • development of deep-sea ports and harbours to facilitate the construction and passage of renewable energy components. • Renewable technologies such as fuel-cell development; hydrogen fuel development; electricity storage solutions; more efficient transmission of electricity; and development of more efficient 'heat and power' solar systems.
<p>Other opportunities:-</p> <ul style="list-style-type: none"> • maximising local food production and connecting to supply chains; • development of technologies to minimise use of natural resources and create sustainable transport systems; • forest products for insulation systems; • sustainable construction, off-site fabrication and 'self-build' technologies; • development of recycled plastic products for insulation systems.

How can places be made more resilient to the long term impacts of climate change

Design of new development should:-

- use land more efficiently and portray a leading dialogue of how we should live for the future
- be more ambitious in achieving higher densities/ mixed uses and repurposing that are landscape led and aim to positively support the environment in which development sits .
- Include integrated, meaningful blue-green infrastructure with accessible, good quality and biodiverse green space.
- be self-sufficient in terms of energy and waste, taking responsibility for climate change on a micro-scale with cumulative advantages through economies of scale.

Flood resilience 'slow the flow',- Prioritise water conservation and flood risk, attenuation, SuDS,

- No development on flood plains.
- Preparation of the equivalent of the Welsh Governments *Landscape and a Changing Climate*
- SUDs to be the responsibility of a single public body to avoid the current issues around design, management and maintenance. Scottish Water with SEPA as the regulatory oversight body.
- Assessment and strategy for long term resilience of all coastal, fluvial and upstream catchment areas to ensure 'slowing the flow' to reduce flooding downstream. This could include CPO of land in upland catchment areas.
- Natural and/or hard engineering solutions planned for areas likely to flood in the future and coastal infrastructure at risk of inundation or erosion due to storm surges, sea level rise. Hard engineering solutions where natural methods alone will be insufficient
- Work with rural and farming communities on opportunities for diversification and rewilding to move away from monoculture; to expand natural water storage systems for biodiversity and for flood resilience through alternative drainage management techniques, further reintroduction of species such as beavers and planting native trees on upland slopes and river valleys;
- Continued ban on peat extraction of viable or restorable peatland (with associated peatland restoration and management.
- A Government strategy to deal with unsustainable development in known flood areas where no other solutions are economically viable or environmental acceptable.

Warming Summers

- Partner with UK water companies and land owners to capture, store, treat and export surplus water in summer to drought-ridden England
- Develop understanding of increasing agricultural needs for irrigation during drier summers – what pressure will this put on the water infrastructure at point of extraction and downstream especially in the eastern arable lands.
- Design out the need for air conditioning - utilise building orientation and design measures, use urban greening , woodlands and water bodies to reduce urban temperatures.

What climate change friendly places might look like in the future.

Prioritised for people and nature -

- energy neutral developments within biodiverse and sustainable habitats which in addition to addressing climate issues also benefit peoples health.
- Located within walking/cycling distance of places of work and hubs of food production, retail and community facilities
- Sustainable travel options to connect people and services for distances of more than 5km.
- Restored natural drainage systems and mixed woodlands for public access;
- networks of green spaces, rain gardens to recycle stormwater, green and blue infrastructure for play and learning, observation and contact with nature, forest schools;
- car-free public spaces sheltered by trees etc against excess summer heat and excess winter wind/rain/snow; Green walls and roofs to manage solar gain and conserve water.

National Planning Framework for Scotland (NPF4) – Call for Ideas

2. How can planning best support our quality of life, health and wellbeing in the future?

Where we might want to live in 2050 and how many and what types of homes we will need?

Scotland cannot be a supercity in the central belt-connecting up to Aberdeen if it is to be a sustainable country. Rural depopulation cannot be the norm and the issues surrounding that need to be addressed (see points below) Spatial planning needs to look at how our population demographic is managed.

Cultural and local identity is important. We need to create locally distinctive places, safeguard local landmarks, historic buildings, features that define local character, use compulsory purchase powers to safeguard community assets at risk

Where people do live in urban areas they need to have designed 'walkable' centres, safe cycle routes and frequent cheap public transport link with integrated blue -green infrastructure, biophilic design and access to good quality and designed landscape spaces -good health relies on all urban centres being kept free of air pollution.

Mixed residential development which supports a broad demographic is required, which in turn promotes inclusivity and diverse types of housing. Provide well-designed and genuinely affordable social housing for aging populations either older independent and extra care living, as well homeless families and single people

Mixed housing ought to tackle crisis of loneliness in our communities and foster social cohesion through a variety of interlinked opportunities including shared food growing spaces; collective and affordable transportation systems and communal recreational and education activities.

Instead of building more home to meet a demand, we need to be smarter in the types of housing that we build in order to release areas of the housing stock. Primarily homes targeted at the elderly and empty nesters to encourage downsizing in order to release larger family homes (for which there is the biggest market for in terms of commercial gain for house builders) into the market. Well planned housing for downsizers has less footprint, and more sustainable than building acres of detached boxes on greenbelt and farm land around commuter belt towns. Additional benefits include the revitalisation of villages and town centres with the increased provision of amenities, including within rural communities.

How we can encourage more people to live in rural Scotland?

- Land Use Reform to be integrated with a Scotland wide strategic Landscape Plan
- Affordable homes - new and innovative ways to support and fund that can expand and regenerate existing villages, develop small rural communities (self-build/ co-housing schemes/ modular construction/ demountable homes]
- Digital connectivity expansion
- Greater biodiversity of our landscapes so that benefits tourism and other rural economies.
- Highly sustainable infrastructure ie. good transport links, school, community centre and local healthcare services, convenience store, live/work housing units, spaces for remote working, small business premises including leisure and tourism businesses;
- Support diversification of the rural economy and encourage local food markets, support conversion of existing [heritage] buildings for community uses, prohibit or penalise second

home ownership. (% for local people scheme?)
How can we target development to address longstanding differences in health and quality of life?
<p>Climate Change</p> <ul style="list-style-type: none"> Climate change actions as Question 1. Set up a Climate Review Panel, Minister led, to monitor progress with the Climate Emergency. Call on experts including the landscape profession who are well placed to provide help and advice along with other professionals. <p>Policies</p> <ul style="list-style-type: none"> Make health and wellbeing a national priority (Nicola Sturgeon ‘the wellbeing economy’) and ensure a consistency of approach at LDP level Demonstrate the interrelated benefits/inextricable relationships between health and wellbeing, and other NPF 4 priorities (Climate Change, housing, economic development and investment, special character of places, infrastructure...) Propose the idea of ‘Healthy New Towns’ for Scotland – after the NHS Healthy new towns scheme in England. Linked to creation of new settlements Develop a set of Health and Wellbeing design/planning principles against which planning applications can be assessed for meeting health and wellbeing objectives for all age groups and needs. Guidance developed for planners/landowners/communities/developers to ensure that health outcomes are fully considered and delivered through spatial and development planning as well as a sense of place with local character and identity. <p>Planning</p> <ul style="list-style-type: none"> Ensure the development process genuinely takes care of and integrates the needs of end users right from the outset. Development should be at first high quality and integrated into masterplans showing how they link and connect to existing and proposed spaces. Only then should the capacity of the site be determined. This requires better more integrated planning from properly resourced teams. Place-based approach to planning, suitably resourced by community facilitators and not led by developers. Communities given the time, training and support will be actively involved in decision-making. Intergenerational approach to planning – social/health facilities etc., buildings, the spaces between them and access to public transport provision need to work for young and old, able and infirm, prams and wheelchairs. <p>Infrastructure and Environment</p> <ul style="list-style-type: none"> All development to include integrated green and blue infrastructure and accessible, good quality greenspace (access to nature). well-managed provision for all. Cross boundary co-ordination of transport infrastructure provision at regional level, - integration of active travel networks, facilitating integrated ticketing for public transport information and management towards space for well-connected walking, cycling (preferably integrated with GI) and public transport routes (with associated real time info, lighting, seating, publicly accessible toilets at frequencies that support access for all). Find not only active travel routes but resources around them such as proper, secure cycle parking. Encourage active travel by intervening in order to connect paths and spaces properly where developers refuse to do it on 3rd party land; <p>Development types</p> <ul style="list-style-type: none"> Better choice of housing types as a requirement of development, including a contemporary single storey solution and small garden for the increasing numbers of wheelchair users and their families who are not ready to live in flatted development.

- Homes with low heating needs to address fuel poverty and for NZC.
- More affordable homes in rural and coastal areas, especially those under pressure from second homeowners. (matched with improved digital connectivity, improved public transport and access to shops and local health/education and leisure facilities).
- Green infrastructure to include SUD's, community gardens, , Play, orchards and food growing /allotments opportunities incorporated into new development to encourage multigenerational social interaction

Controls

- Childhood obesity is a ticking time bomb; planning controls can strictly limit advertising of junk food around schools and stop consenting junk food outlets around schools;
- Setting Targets: Air Quality in built-up areas only and monitoring of agricultural emissions e.g using NPA data – could this be expanded further?
- ENG to ensure inclusion of tree planting to reduce pollution and provision of green space
- Create a national landscape service to monitor and enforce, e.g. landscape designations, SSSI's, SPA's, AONB's, NSA's.

Whether and where we might need new settlements, and regeneration of existing communities?

How places could be more inclusive, diverse, creative, vibrant, safe, resilient and empowering?

- redefine and redesign 'neighbourhoods' after in-depth community engagement process; listen to people, re-think schemes to respond to local knowledge;
- mixed use, socially inclusive neighbourhoods to comprise well designed tenure-neutral housing, public transport services and local facilities that will attract diverse groups of people of widely different age ranges, living together on car-free or traffic-calmed streets, with generous public spaces for social interaction and shared activities;
- eg. assisted living near young families, business 'start-ups' near schools and colleges, creative industries and arts hubs in town centres;
- land uses to include well-overlooked amenity spaces, in high density layouts to minimise land-take, that safeguard biodiversity, minimise flood risk and air pollution, maximise natural ventilation;
- secure long term stewardship, good management and future maintenance responsibilities, community management schemes for waste, parking, gardens, shared spaces, play areas, pedestrian and cycle routes etc.

;

National Planning Framework for Scotland (NPF4) – Call for Ideas

3. What does planning need to do to enable development and investment in our economy so that it benefits everyone?

Consider - what our economy might look like in 2050; how planning can anticipate and respond to the economic challenges of Brexit; what the key sectors might be and what infrastructure they may need to support them; how planning could stimulate and distribute growth; what type, scale and distribution of business and industrial land and premises will be needed; where significant investment sites might be; how economic opportunities could improve, or be accessible from, places where deprivation is concentrated

Planning

- Ensure that development planning and infrastructure planning are fully aligned so that capacity is coming on stream to meet future permissions.
- Make Scotland ever more attractive to inward investment – develop the right strategies for development in right place.
- Have a ‘*Scotland first*’ approach to the distribution of major development opportunities; this may require prioritising rural and western communities to reduce population shift to the east of the country (where it will cause further pressure on resources and lead to loss of quality agricultural land) and looking to reduce transport miles for goods and services.
- Tourism is critical to our economy; exit polls reinforce its our cultural heritage and landscape which attract tourists. This needs to be reflected in planning policy, controls and investment.
- Planning needs to be proactive in guiding development; the developer-led system does not promote good placemaking.

Planning Support

- Expediate the planning process. Planning Authorities need additional resources and skills.
- Better skill base within LA’s – needs proper resourcing; especially landscape architects, flood management specialists and development management enforcers. Being able to properly assess and guide applications and crucially, making sure that proposals are properly delivered;
- Enhance funding to secure growth of expertise in SNH. With less than 5 landscape architects across Scotland it is grossly under resourced for the important role it needs to play in addressing climate change.

Opportunities:

- New deep-water port; data storage hubs and digital connectivity; energy generation and storage; energy from waste plants close to major population centres; offsite construction and assembly to reduce waste and onsite construction time.
- Use of existing redundant boat yards and deep-sea docks around Scotland. Before we lose all our knowledge of marine engineering to encourage a revitalisation of the manufacturing industry in the production of renewables. Many of these locations are already located in socially deprived areas due to industrial decline, Girvan, Methil, Rosyth etc. etc. A well paid and skilled local workforce will increase economic development in these areas.
- Matched with a ‘*think local*’ approach to support small-scale energy generation, district heating, local recycling and reuse (especially from the construction industry), urban agriculture and market gardening, and greater capacity and revenues in the public and third sectors to support management and maintenance of the public realm, public engagement in planning, design, delivery and maintenance of services and facilities.

- Areas of disadvantage - Focused effort into physically connecting areas of deprivation to work opportunities through better public transport/walking and cycling infrastructure (like the Green Link in Motherwell); infilling VDL with positive land uses and employment opportunities; improving green and blue spaces.
- Rural areas – Recognise and plan for the critical role of rural Scotland in meeting climate change targets and resilience – forestry/peatland/flood management/energy generation and storage/food and fisheries
- Rural areas – Provide quality low cost starter and family housing, support rural schools, health and other facilities, improve digital connectivity and speeds, address tourism pressures on infrastructure and review island transport connections.
- Keep ahead of digital technology (the 4th revolution). Encourage shared business hub space. Promote home working, reduce the need for travel whilst maintaining productivity and increasing time for health and well being.

National Planning Framework for Scotland (NPF4) – Call for Ideas

4. What policies are needed to improve, protect and strengthen the special character of our places?

Generally

- Better/ more informed leadership from Government down to Local Planning Authorities. Its difficult to have a co-ordinated approach when landscape matters fall across different directorates. Where is the Scottish Government's Landscape expertise coming from?
- More coordination between departments in LPA's to improve decision making.

What special places will need protection in the future?

- Have we got our existing protections/designations and policies right? A review of the effectiveness all rural and urban designations should be considered. Wild Land/ NSA/ SLA/ Afforestation of wild land and non productive or V&D land.
- The creation of a National Landscape Service to defragment and improve efficiency in the landscape protection system should be explored
- Strengthen the effectiveness of new / existing designations so development proposals for our most special sites (to be determined by HES and SNH and other specialists) no longer come forward – eg Coul Links Golf Course.
- Future protection: -
 - open space - benefits to the climate and environment and health and wellbeing of society.
 - Topsoil and productive farmland
 - Flood plains
 - All trees and woodlands - benefits both to the climate and environment and often cultural significance
 - Special character areas that are a consideration in the planning process but not protected eg designed gardens and landscapes

What the future might be for our rural, coastal and island communities?

- Community led decision making to ensure protection of their unique characteristics and forward planning for sustainability and growth.
- Develop a range of joint resources to help communities engage in the planning and management of their local landscapes and places.
- Promote landscape's contribution in the preparation of new Local Place Plans and support sharing of good practice.
- adaptation to coastal erosion and sea level rising – support to develop new technologies, innovative ways of working, community enterprise, digital connectivity, global markets for local products;
- tourism based on local food products/ textiles/ wildlife/ dark skies/ creative industries/ literary and music festivals

How we could unlock the potential of vacant and derelict land?

- Engage with local communities to develop a local place plan
- Support greening of VDL to connect blue/green infrastructure, NBS, floodwater retention ponds, rain gardens for flood management, for urban food growing /market gardening and where no 'hard' uses are viable.
- Stalled Spaces programme extended - temporary landscape treatments, seed-bombing, soil/compost sacks for community gardens.

<p>What our city and town centres might look like in the future?</p> <p>Prioritised for people and nature -</p> <ul style="list-style-type: none"> • Mixed use including residential (many traditional centres have unused space above shops) • Retained historic buildings to provide local character and cultural identity. • Imaginative repurposing of empty buildings and land for both public and private use - eg. nursery, arts centre, community library, shared use of office space • Car free • energy neutral within biodiverse and sustainable habitats • Located within walking/cycling distance of places of work and hubs of food production, retail and community facilities • Sustainable travel options to connect people and services for distances of more than 5km. • Restored natural drainage systems and mixed woodlands for public access; • networks of green spaces, rain gardens to recycle stormwater, green and blue infrastructure for play and learning, observation and contact with nature, forest schools.
<p>Whether we need to think about the concept of green belts?</p> <ul style="list-style-type: none"> • A review of existing green belts to determine their effectiveness in relation to the Governments priorities for climate change, health and wellbeing and inclusive economic growth.
<p>How we can get the most out of our productive land?</p> <ul style="list-style-type: none"> • Scotland’s most productive land lies along the eastern coastal margins. This is an enormously important resource (including the topsoil) It needs to be defended from development; however, this is where people are moving to. There’s a need to hold back this movement by improving employment opportunities, public transport, housing choice etc in other parts of the country. • Many of our land use practices are unsustainable and we need a transition in rural landscapes to shift some land from sheep and cattle production and shooting estates to manage peatland, soils and biodiversity, increase dramatically woodland cover, improve water quality and limit water abstraction, reduce inputs like fertilisers, to safeguard arable land and encourage a return to market gardening. • Fisheries and farming relocated and restructured (at a range of production scales) to maximise the benefits and cope with the disbenefits of a changing climate.
<p>How we can protect and restore peatland?</p> <ul style="list-style-type: none"> • Continued ban on peat extraction of viable or restorable peatland (with associated peatland restoration and management). • Peatland restoration assessment by SNH and management plans to be prepared for damaged areas • Resolve extraction needs for the whisky industry with Scottish Whisky Assoc., SNH and the Soil Association.
<p>How we can plan blue and green infrastructure?</p> <p>VGNP guidance on planning for GI is currently available for all local authorities to adopt. This should be mandatory.</p>
<p>What we can do to protect and enhance biodiversity?</p> <ul style="list-style-type: none"> • Adopt the English system of proving New Biodiversity Gain and, critically, make sure it is enforced • Stronger reinforcement of policies to deliver quality open spaces – nature/ recreation etc/ NBG • Increase use of existing (and new) Design Panels to support Local Authorities in both urban and rural locations. This could be particularly valuable when considering planning approvals with trans-boundary implications.

How we can strengthen the character and heritage of our many different places?

- Incentives to encourage more inventive adaptation of our heritage/ historic buildings in cities/ for efficient places - embedded carbon, minimises exploitation of resources, reduces environmental impacts and whole life cost, contributes to local character;
- A review of the term 'care' with listed and protected buildings or conservation areas to incorporate a more 'stewardship' requirement for long term survival of buildings in private ownership
- Greater area specific guidance is needed for development on the edge of historic towns, in special landscapes etc. The Place Principal and the Place Standard will not address this issue, planners need to understand and insist on 'design' and 'design-thinking' as currently development, especially mass housing, is generic and not place specific.
- Implementation of local authority Road Design Manuals can result in the 'urbanisation' of rural roads and edge of village development. A more site sensitive and nuanced approach is required to materials, kerb treatments, lighting, bus shelters and signage.
- Ditto within national parks and scenic areas where this type of infrastructure can diminish rather than add to the quality of a place

National Planning Framework for Scotland (NPF4) – Call for Ideas

5. What infrastructure do we need to build to realise our long term aspirations?

What infrastructure we will need in the future?

Landscape / Natural Capital

- All recommendations pertaining to NPF4 and planning policy contained in “A blueprint for Scotland” should be incorporated. (Key Findings Report, Infrastructure Commission for Scotland. Jan 2020)
- Landscape needs to be recognised as a vital component of infrastructure (not just an asset) and the value it brings to climate change, health and wellbeing and our economy. This includes the value of soil/air/water/biodiversity as the building blocks as well as integrated blue / green infrastructure, whilst ensuring its character and setting is valued.
- A high level infrastructure, land use and landscape plan to be prepared for Scotland to remove silo thinking at high level and encourage improved alignment with programmes, strategies and policies captured in regional spatial strategies at local authority level.
- Recognise and plan for the critical role of rural Scotland in meeting climate change targets and resilience – forestry/peatland/flood management/energy generation and storage/food and fisheries.

Renewable Energy

- Retaining and capturing fresh water – pumped water storage
- Greater investment in wind and tide for electricity which will require national grid upgrade and energy storage facilities
- Hydrogen manufacture facilities and storage.
- Improve district heating options and enforce developers to use them.

Transport

Better investment in:-

- green transport – safe travel /cycle network/ integrated active travel /cycle storage / reduced cars
- High Speed rail
- Extensive Scotland wide rail network connecting new ‘work and live’, exemplar communities, and the tourism hotspots, including opening up of rural stations and lines for alternative transport routes
- All major upgrades and new transport routes to be designed for multi-use (car /high speed transit)
- A review of connectivity to the Islands – local needs to be prioritised. Tourism to provide funding for transport infrastructure including options for tunnels / bridges

How we can make better use of existing infrastructure capacity, including through innovation?

- A qualitative assessment of landscape and natural capital and the role it plays. A rating award system for development based on how best they meet climate resilience targets/promote sustainable travel/ social inclusion/local economic wealth and health. The more ‘A’ rated new developments that a local authority provides, the more of a draw that area may have for tax paying residents.
- Sustainability plan for major projects requiring EIA to include for ENG and community benefits
- Major upgrades and new transport routes to be designed for multi use (car /high speed transit)
- Tourism to provide funding for transport infrastructure including options for tunnels / bridges.

Where transport connections will be needed to support future development/ Where our international gateways, hubs and links will be in a post-Brexit world?

- Europe facing with new transport links into Europe by sea and rail (including rail connections via Eurotunnel)
- Balanced - Ensuring west coast economies and communities

How we can sustain our lifelines?

- Rural areas – Recognise and plan for the critical role of rural Scotland in meeting climate change targets and resilience – forestry/peatland/flood management/energy generation and storage/food and fisheries.
- Many of our land use practices are unsustainable and we need a transition in rural landscapes to shift some land from sheep and cattle production and shooting estates to manage peatland, soils and biodiversity, increase dramatically woodland cover, improve water quality and limit water abstraction, reduce inputs like fertilisers, to safeguard arable land and encourage a return to market gardening.
- Fisheries and farming relocated and restructured (at a range of production scales) to maximise the benefits and cope with the disbenefits of a changing climate.
- Market gardening is a potential option for the urban fringe and VDL and could be combined with district heating schemes or digital storage (constant energy demand for glass houses).

How digital connectivity could change the way we live and work.

- Improved IT across Scotland to encourage home working, remote working, less commuting, shorter working week, more leisure time, more loneliness greater need for accessible public green spaces for social interaction, active travel, outdoor exercise and contact with nature.
- digital systems for community ownership and management of renewable energy supplies, domestic energy generation and storage.
- Adaptable systems – inbuilt flexibility for future technology change.

Where our natural resources for energy are?

We know all the following – it needs investment and new models of funding to work with private sector and communities.

- Water - tide, wave and hydro
- Wind – onshore and offshore
- Rain harvesting
- Ground, air and water heat pumps
- Solar
- Waste – natural and man made