



a positive view of our future



The Scottish Parliament
Pàrlamaid na h-Alba



Scotland's
Futures Forum
Fòram Alba air Thoiseach

Together we can make Scotland in 2030 a positive place for us all.

Foreword

The future is largely unknown, largely unmade and, while there are aspects of our future lives that have already been determined by our current and previous actions, there remains a vast amount yet to decide. These are the issues we need to explore, the debates we need to have, and the choices we still need to make.

As the Scottish Parliament's think-tank, Scotland's Futures Forum has a remit to look to the longer-term at what lies ahead for our country. Its work aims to help MSPs and those who support them to take a step back, break away from electoral cycles, and look forward positively to the opportunities and challenges that face us.

This Futures Forum report does not attempt to predict the future. It aims to explore our future lives, the trends and developments shaping them and the key challenges to our responses. We hope that it will inform the debates, discussions and decisions that we will all be taking over the coming 10 years.

Like many others, our work has been affected by the serious and significant impact on our lives of the Covid-19 pandemic. Our already emotive discussion on death and dying has an added poignancy given that so many have been affected by unexpected bereavement. This is particularly painful when we haven't been able to see, hug and console our family and friends.

A key message throughout the programme has been to raise awareness of the changes that Scotland can expect over the coming decade. As the videogames entrepreneur Chris van der Kuyl told us, the pace of technological change has

never been as fast in human history as it is now, and it will never be as slow again. The same may well become true of climate change.

Scotland has already had to make significant adjustments since March 2020. Indeed, many of the reforms considered during our events, such as widespread remote working, artificial intelligence-led decision making and the provision of online education, have become a reality for more people.

As the response to the Covid-19 pandemic has shown, people can and do respond positively when life throws up huge challenges. But it has also shown the importance of including people in the process when the decisions on how to respond are made.

A key part of the Futures Forum's work, a central theme throughout this programme from all our events, and one of the founding principles on which the Parliament operates, is the importance of including everyone in discussions about our long-term future. Together we can make Scotland in 2030 a positive place for us all.

Rt Hon Ken Macintosh MSP, Presiding Officer and Chair of Scotland's Futures Forum



Encouraging everyone to take a positive view of our shared future.

Introduction

The Scotland 2030 Programme has been an investigation into the kind of country we want Scotland to be in 2030 and beyond.

Through it, Scotland's Futures Forum has explored how Scottish culture and society is changing and will change. We have looked at the issues through different themes and from different perspectives, with the overall aim to take a positive view of what lies ahead.

Since our launch in March 2017, we have hosted events to look at different aspects of the overall question: what kind of country do we want Scotland to be in 2030 and beyond?

We have brought together subject experts with artists, academics with politicians, and young people and those not so young. We have asked them to outline the current trends, to challenge each other's thinking, and to offer their visions for the road ahead.

Throughout the programme, we've brought people into the Scottish Parliament to share their views and bring their own expertise to bear. Where possible, we have held events elsewhere in Scotland.

We have looked at the technological changes we can expect to see, how we can manage our environment in the context of climate change, and how we can build an economy that marries the two trends and works for people throughout Scotland.

We considered innovative ideas like a citizen's income, as well as aspects of our life central to our culture – our relationship with food and the way we care for vulnerable older people.

With our partners the Goodison Group in Scotland, we looked in-depth at what this all means for the education system – our main way of preparing society for the future.

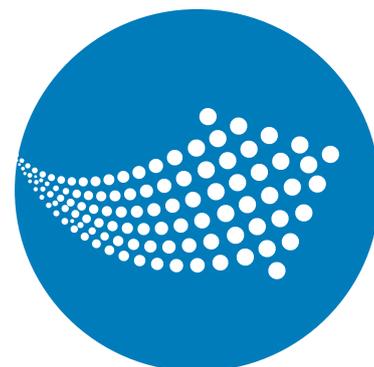
We also explored the stages of life in the future, from birth to death, in a series that informs this report.

Over the years of the programme, we have built up a reference bank of materials. As well as capturing the wide range of topics covered, it provides food for thought on the future that Scotland faces. With videos, podcasts, event reports, guest blogposts, stories and pictures, we have supported a variety of voices to reflect on the future in the way that works for them.

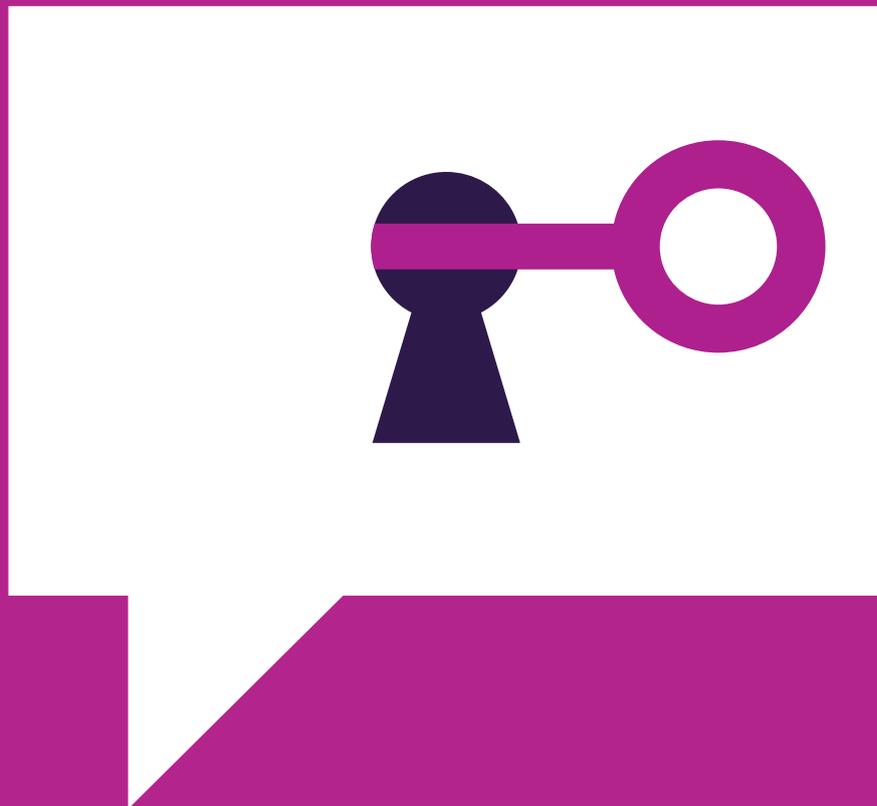
Everything we have done is available on our website: www.scotlandfutureforum.org.

This report aims to capture the key issues that emerged from our work and some important questions for the next 10 years. It also outlines a selection of the creative suggestions that have been shared during our events, with 10 ideas for 2030.

Most of all, we hope that it encourages everyone – Members of the Scottish Parliament and the people they serve – to take a positive view of our shared future.



key messages



Growing up in 2030

The early years of someone's life set the direction for the rest of their life, and Scotland has the admirable ambition to be the best place to grow up in for children and young people. However, long-standing economic difficulties stunt the chances for thousands of young people each year, and the continually evolving digital world brings the good and evil in the world directly into everyone's homes.

Around half a million babies will be born in Scotland in the 2020s. How can we help them and all of Scotland's young people prepare for, and bring about, a brighter tomorrow? Are we brave enough to take the big decisions as part of those changes to tackle the deep-rooted inequality in Scotland and really get it right for every child?

How can we challenge the unthinking adoption of technology in our children's lives? How can we build in the values that we want to that technology? And how can we do that when the tools and the world they give access to are changing almost daily?

Finally, in this ever-changing world, what do we teach our kids? To cope with the challenges of 2030 and beyond, we need young people and their teachers to be able to adapt to changing circumstances. They need to be given the freedom to be creative, to take risks and, on occasion, to fail safely. Is Scotland – its society and its Parliament – prepared to give teachers and young people the freedom and support to do that?

Working lives in 2030

For many people, the time they spend at work forms the largest part of their lives. This will be increasingly the case into the 2020s as the retirement age increases and as the division between work and home life becomes more blurred.

It is also the time when we make our largest contribution to greenhouse gases emissions. In the economic transition ahead, how can Scotland turn the current economic success stories into the sustainable economy of the future?

Technology has been used to build better lives throughout history. The same can be true over the coming decade, but the pace of change far exceeds anything experienced in the past. What are we doing to support those already in the workforce to prepare for the change ahead?

The future of work, and our working lives, is uncertain. Some benefits can be predicted: a fairer split of work and domestic duties, a broader set of opportunities for women and men, and a better balance between work and home life. But they are only achievable with brave decision making and risk taking – and an acceptance that, for Scotland's long-term future to be sustainable, we have to change what we are currently doing.

Growing older in 2030

In 2030, there will be more older people – both in real terms and as a proportion of the population. This is a positive story in many respects, but as we age, our physical capability starts to decline, and our mental capability can be impaired by long-term conditions.

With more knowledge and positive role models, we can build a healthier future for ourselves. If we are living into our 80s, 90s and beyond, we need to take the steps in our 30s, 40s and 50s to prepare.

With more people needing ever more complex care, we need to consider who will look after them and where. A well-supported carer will produce better outcomes for the individuals involved and society as a whole. We all need to consider what that means for ourselves, our families and our communities.

The places we live, both our homes and our communities, have a massive impact on our wellbeing and health. As our population ages, public authorities including the Scottish Parliament must take account of the changing needs of older people. If we do that, we can build healthier, more sustainable and more connected communities for us all.

Death and dying in 2030

There will be more death in 2030. With an increase in population, there will be more deaths as a whole. But more importantly, death as a process will be with us for longer. As people live with degenerative conditions towards the end of their life, we will mourn the passing of their physical and mental capacity, including their personality. Anticipatory grief, as well as mourning after death, will affect us all.

As with ageing, there is a great value in making dying well an explicit public health goal. Encouraging people to think ahead to the end of their life and helping them to prepare will make hard decisions easier to take and tough times pass more smoothly.

When the time comes to turn off life support, to switch to palliative care medicine or simply to say goodbye, it can only help for those involved to know what the person dying wanted.



A positive view of 2030

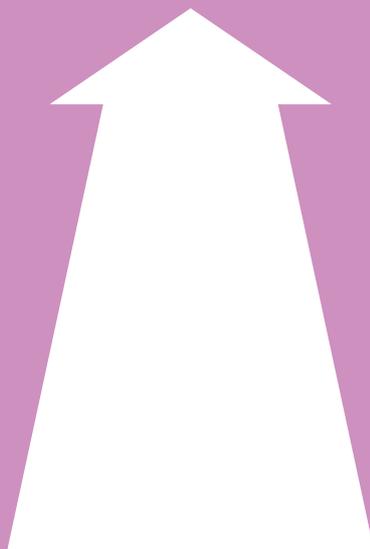
Throughout the Scotland 2030 Programme, the key message has been one of change. The environment in which we live will change. The tools we can use will change. And people's views, reactions and lives will all change. The pace of change has never been as fast as it is at the moment, and it will never be this slow again.

Change, whether welcome or not, is never straightforward. To cope with it – to enable as many people in Scotland to thrive through it – we have to be honest about what is happening and about the options that we have. That is the case both for individuals and for the organisations and institutions whose decisions affect their lives, particularly the Scottish Parliament as a centre-point of our democratic system.

The best response, identified throughout by presenters and participants on a variety of topics, will be to make sure that people have a voice and a role in their own destiny. Whether it is what is taught in their school, the future of their community, or what happens at the end of their life, the people whose future is at stake should be at the heart of any decisions that are taken

The Scottish Parliament obviously plays a central part in that. In debating the issues of most importance to the people of Scotland, passing laws that set the framework for our society, and holding the Government to account for its decisions, it gives the people of Scotland a role and a voice in the key decisions that affect their lives.

And in doing that, the Parliament and the people involved in its work have to look beyond tomorrow, next month or the next election. A clear-eyed and positive view of the future can help us build the positive future we all want.





Throughout the Scotland 2030 Programme, our event participants shared their thoughts and ideas on how to approach the future. These are **10 ideas** for the Scottish Parliament to consider.



A Museum of Failure

If we don't fail, we don't learn. Using the legend of Robert the Bruce and the spider, and more recent versions such as scientific innovations like Dolly the Sheep and sporting achievements like Andy Murray's, a national museum of failure could show the role of failure in the path to achievement and encourage people to embrace risk.



Teach all subjects through creative arts and group work

Communication, creativity and collaboration are key skills for the future, both for the economy in particular and for society more generally. A school system that is based on cross-year group work and projects in the creative arts would help young people develop the skills they will need to find creative solutions to the problems of the future.



Make all schools community hubs

School buildings are a centre-point for communities, bringing together people from different backgrounds. Over the next 10 years, as communities are redeveloped to respond to changing populations, school buildings that are linked to housing for older people and which offer community facilities out of school hours will help people come together in spaces that are accessible for everyone.



A Scottish island test site for autonomous vehicles

Autonomous vehicles work well in controlled environments, but to work in the real world they need to be tested in the real world. With the right digital infrastructure, one of the Scottish islands could be used to try AVs in a clearly defined live environment. It would be a world-leading experiment to explore the benefits of AVs for communities.



National conversation on diet

Scotland has a complicated relationship with food and drink, taking pride in both high-quality meat and fish and less high-quality deep-fried food. A truly national conversation on what we eat and what we produce would help us to work our way to a healthier and more sustainable future.



A kitemark for algorithms

Artificial intelligence is already used for many decisions both in both the private and public sector, and more needs to be done to ensure that algorithms do not inadvertently discriminate against different groups in society. A kitemark or similar process would assure those using the algorithms – and those in the Parliament who hold them accountable – that the development process has taken account of all the potential effects.



Responsible debate charter

Trust among communities and groups in society will continue to be challenged as the digital world becomes more and more embedded in our politics and media. Politicians can continue to show a positive lead by signing up to something like the Charter for Responsible Public Debate created by the RSE Young Academy of Scotland.



A Digital Haven

Our lives are ever more connected. The internet is no longer just a tool for communicating; smart devices inhabit every aspect our lives. In the same way as Dark Skies Parks provide a place for people to experience life without artificial light, digital havens – with no internet access available except in emergencies – would help visitors to switch off from their connected devices.



Whole-life plan for 40-year-olds

There is a lot that we as individuals can do to make growing older as positive an experience as possible. When everyone reaches 40, they should be sent tailored information about the health benefits of exercise and diet, along with a form encouraging them to plan for their old age. Prompts could be sent to revisit it at age 50 and 60, and every five years thereafter.



The end of life as part of life

Especially in an ageing population, the later years of life – and the end of it – are central to a healthy society. Public health priorities that include a Scotland where we support active, healthy and independent ageing and dying would help us to prepare for an aspect of life that we will all experience.

how we feel about the future



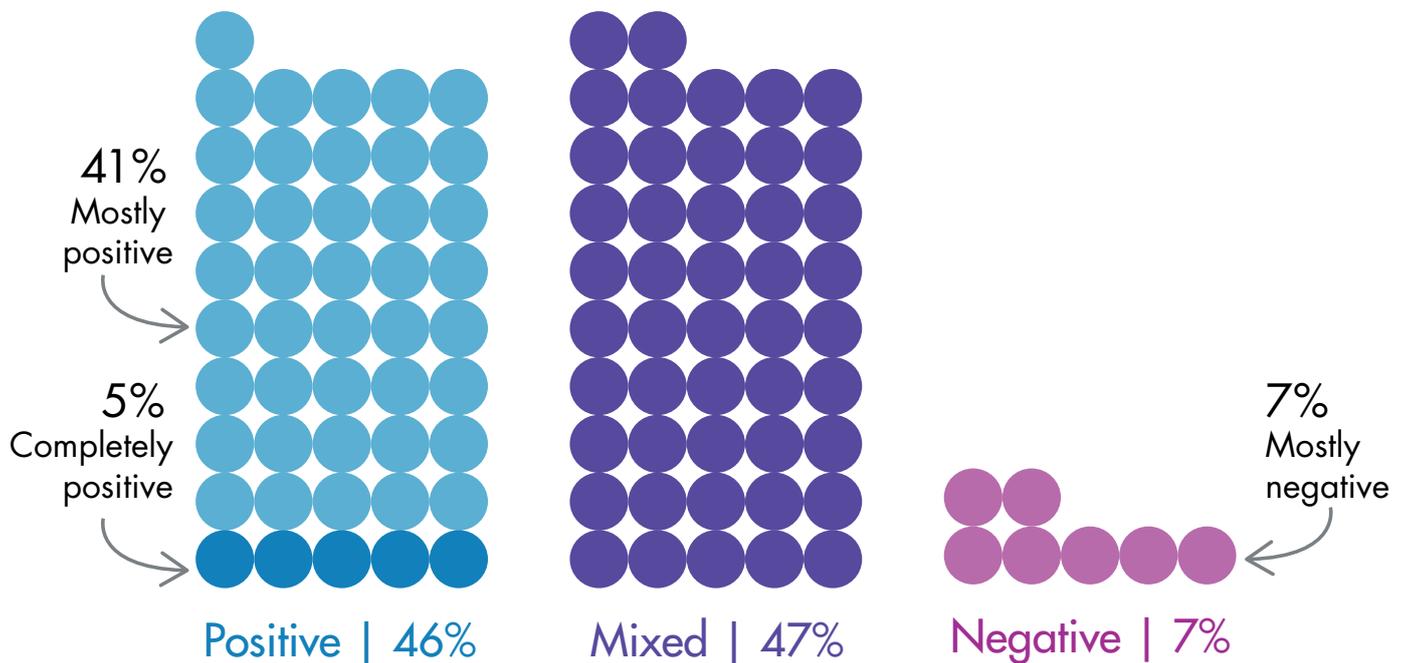
Throughout our programme, we were keen to ask participants about their aspirations for the future. When we look to the future, it is often easier, and more compelling, to see the negatives rather than positives: dystopian fiction is much more popular than utopian fiction.

Indeed, many of our events included predictions of unwelcome change: climate change that will leave communities more vulnerable, technological change that will concentrate information and power in the hands of a few global companies, and demographic change that will leave our country apparently less able to cope with our responsibilities.

To balance this, we aimed to make our events as positive as possible, exploring what we wanted to see as well as what we might see. As well as avoiding a helplessness that can sometimes infect discussion of the future, it helped identify some of the key challenges and trade-offs involved in achieving that positive future.

After each event, we asked participants to describe their attitude to the future. We also asked them to describe their hoped-for Scotland in three words.

Despite the challenging nature of some of the discussions, the general response from participants was positive. Of the more than 200 responses, only 7% felt negative about the future for Scotland, and 46% felt completely or mostly positive.



These responses inform the approach to this report. There are big challenges ahead, but also big opportunities – and the feedback throughout the programme was that these are questions that people want to engage with. By and large, participants valued the opportunity to take a step back from our current lives to look forward with imagination and interest at what lies ahead.



When asked about their aspirations for our future society, our event participants were creative and challenging with their ideas. While there was a wide range of ideas – from being forgiving to being flexible – some key themes emerged and echoed thoughts and ideas articulated at our events.

The two most popular words “fair” and “equal” reflected the concern shared at our events that our current society does not give everyone a fair chance to succeed. It also showed a sentiment shared at many events that, without clear action to avoid them, our future society would continue to demonstrate the inequalities we see today.

The word “inclusive” was the third most popular, perhaps reflecting the value placed on broad conversations during the Scotland 2030 Programme.

Although our events were exclusive in the sense that most were held in person in Edinburgh, they were open to the public and we tried to create open conversations, for example by asking a singer and writer to talk about technology and a photographer to share his perspective on the environment.

As well as seeding some fascinating conversations, this cross-contamination of ideas demonstrated the respectful disagreement that is required for society to work through the thorniest issues.

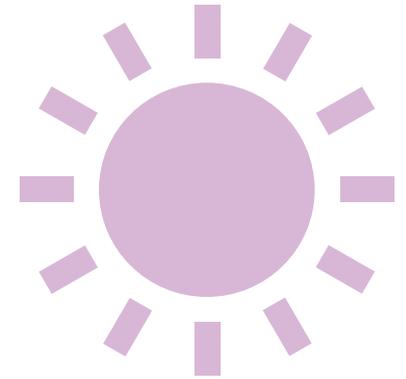
The next most popular ideas of our future society – “healthy” and “caring” – spoke to the importance of remembering the human experience in these discussions. As was said at our event on technology, we need to “nurture the human qualities that set us apart from machines”.¹

Finally, participants hoped for a “sustainable” society. Throughout the programme was a growing acceptance that all aspects of our lives, whether the communities that we build, the jobs we do or the food that we eat, have to be sustainable. A bright future is possible only if we do not destroy the environment on which we depend.

¹ “Scotland 2030: The Technological Context”, 29 March 2017: www.scotlandfutureforum.org/scotland-2030-programme-the-technological-context/ (Accessed 10/11/20)

the
world
in
2030 

There are some clear global trends that will shape our future



Although it is impossible to predict accurately how the world will look in 2030, there are some clear global trends that will shape our future. These global trends will have different effects in different places, but they will all touch on Scotland in one way or another. An understanding of them can only help us prepare.

The most important global trend is that of climate change. In 2018, the International Panel on Climate Change predicted that an increase in average temperature of 1.5°C would see millions of people displaced by rising sea levels, crop harvests affected and huge damage to physical infrastructure. Given the global inaction to tackle the causes of climate change, the world may well be approaching an increase in average temperature of 1.5°C in 2030.²

Scotland will not be immune to these pressures, either in dealing with the effect of existing climate change or in changing our behaviours significantly to avoid further devastating climate change. As Dr Stephanie Smith found in her research report for the Futures Forum, we're likely to see increased frequency of extreme weather events, with more floods, storms and droughts.³ The United Kingdom is already seeing its first climate change refugees, a community in North Wales who have been told that their houses cannot be saved from rising sea levels.⁴ In Scotland in 2030, there may be communities undergoing the same heart-breaking experience.

Human innovation in technology will continue to surprise and inspire – and artificial intelligence will push at the boundaries of knowledge and understanding. As sensor technology improves, we will be able to turn into quantifiable data every aspect of our lives: not just where we are, what we look like and how we move, but potentially even what we think.⁵ The use of this data by artificial intelligence will enable more tasks to be automated – whether that is physically in the development of driverless lorries and cars, or in the use of artificial assistants to provide customer service and professional advice.

In Scotland, we will see huge change in the jobs that are available for people to do. It is forecast that up to half of current jobs in Scotland are forecast to be at risk of automation up to 2030 and beyond,⁶ and many more will be subject to significant change as we adapt to the new technologies available. The internet of things will also mean that almost everything we own can be connected – not just phones and TVs, but beds, fridges, coffee cups, even the clothes we wear. Everything including the kitchen sink.⁷

² "Global Warming of 1.5°C", Intergovernmental Panel on Climate Change, 7 October 2018: www.ipcc.ch/sr15/ (Accessed 08/11/20).

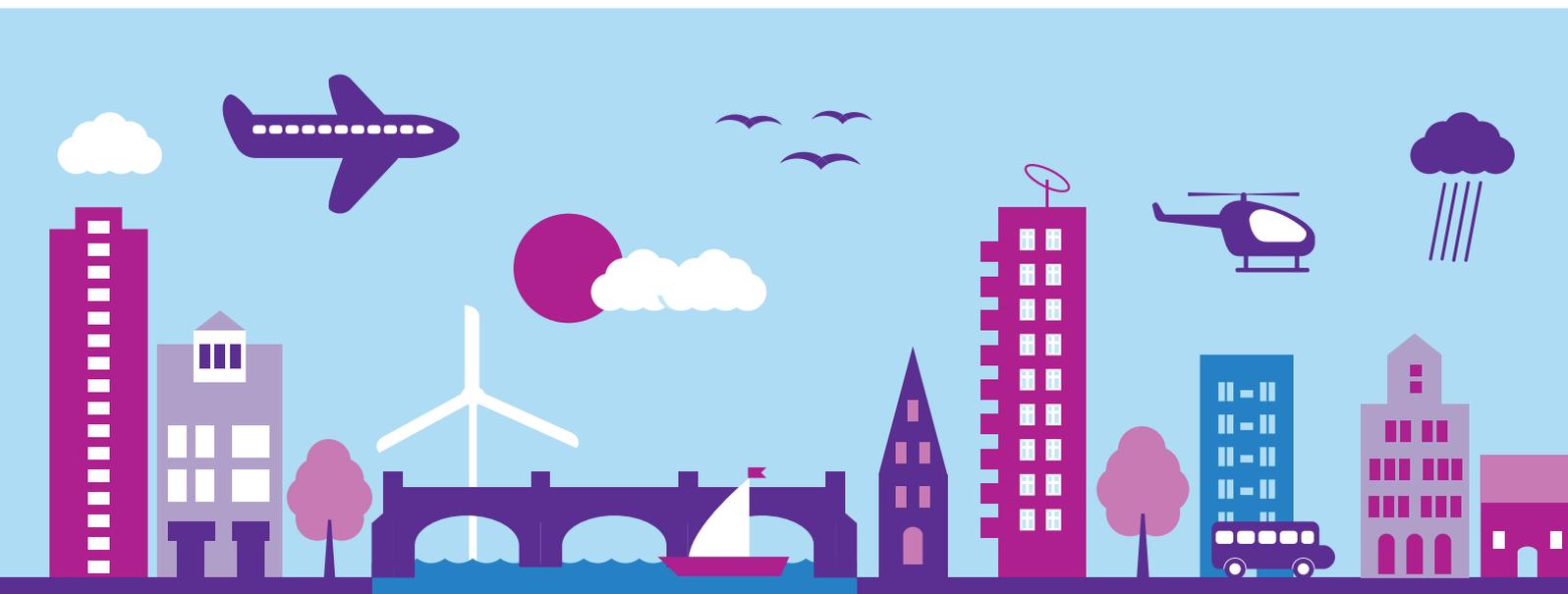
³ "Scotland 2030: How resilient and well-functioning will Scotland's environment be?", Dr Stephanie Smith, 21 May 2017: www.scotlandfutureforum.org/wp-content/uploads/2018/02/2017_Sco2030_OurEnvironment_report.pdf (Accessed 10/11/20)
"Scotland 2030: How resilient and well-functioning will Scotland's environment be?", Dr Stephanie Smith, 21 May 2017: www.scotlandfutureforum.org/wp-content/uploads/2018/02/2017_Sco2030_OurEnvironment_report.pdf (Accessed 10/11/20)

⁴ "The UK's first climate change refugees?", BBC News, 2 March 2020: www.bbc.com/news/av/uk-51667018. (Accessed 05/11/20)

⁵ "How to control a machine using your mind", BBC News, 2 February 2018: www.bbc.co.uk/news/business-42894312 (Accessed 11/10/20)

⁶ "Scotland's Skills 2020", IPPR Scotland, 7 May 2017: www.ippr.org/publications/scotland-skills-2030 (Accessed 10/11/20).

⁷ "Smart showers, smart toilets and smart sinks: Should you put your plumbing online?", Cnet.com, 29 August 2019: www.cnet.com/news/smart-showers-smart-toilets-and-smart-sinks-should-you-put-your-plumbing-online/ (Accessed 10/11/20)



One of the biggest changes will be in demographics – the size and make-up of our population. The number of people on the planet is forecast to reach 8.5 billion by 2030, an increase of over 1 billion from 2015.⁸ Led by significant growth in the developed world, the fastest growing age group will be the elderly, with the population of people over 60 years old at 1.4 billion by 2030.⁹

Where people live will also change. It is predicted that two thirds of people in the world will live in cities: both megacities with a population of more than 10 million¹⁰ (such as Tokyo and Delhi) as well as smaller and medium-sized conurbations.

Scotland is forecast to experience the same trends, with the increase in the number of people over the age of 80 featuring strongly in a gently rising population. Our cities are also predicted to grow, with Edinburgh in particular likely to increase in size and population.¹¹ Without work to maintain the sustainability of their communities, the resulting depopulation in rural areas will hit the Highlands and Islands and south Scotland.

Other shifts are less physically visible but equally important. With each new generation come challenges to accepted thinking, with different views on how society should operate. As each person can create and consume their own news feed through social media tailored to their thinking, the challenge will be finding ways to disagree in a constructive way and reach solutions that have the trust and acceptance of all communities.

These issues have already been seen in elections in democratic countries, and they are unlikely to disappear. For Scotland – and the Scottish Parliament – the challenge will be to enable all voices to be heard, competing opinions to be listened to respectfully, and decisions to be made transparently in a way that people can understand, even if they don't agree with them.

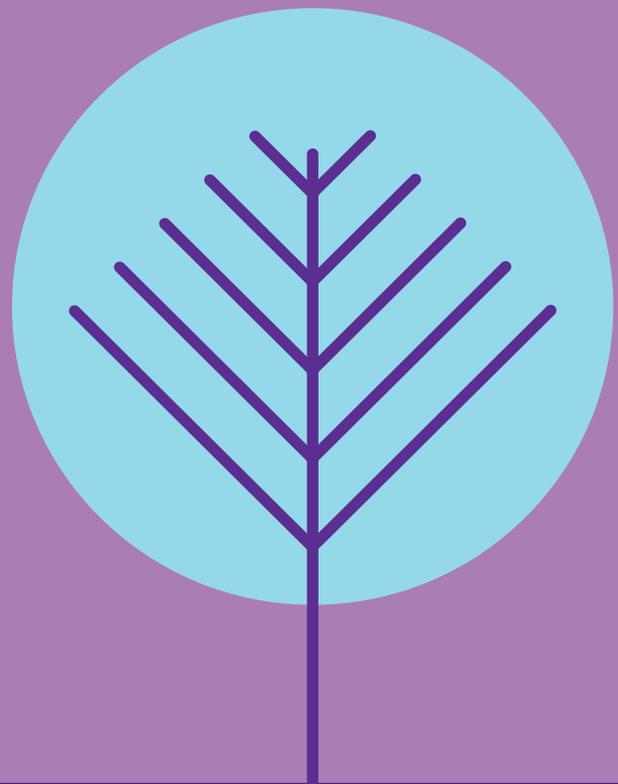
⁸ "Population 2030", United Nations, 29 July 2015: www.un.org/en/development/desa/population/publications/pdf/trends/Population2030.pdf (Accessed 10/11/20)

⁹ "World Population Ageing", United Nations, 2015: www.un.org/en/development/desa/population/publications/pdf/ageing/WPA2015_Report.pdf (Accessed 10/11/20)

¹⁰ "The World's Cities in 2018", United Nations, 16 May 2018: www.un.org/en/events/citiesday/assets/pdf/the_worlds_cities_in_2018_data_booklet.pdf (Accessed 10/11/20)

¹¹ "City of Edinburgh: Population Estimates", National Records of Scotland, April 2020: www.nrscotland.gov.uk/files/statistics/council-area-data-sheets/city-of-edinburgh-council-profile.html (Accessed 10/11/20)

growing up in 2030



Scotland has the admirable ambition to be the best place to grow up in for children and young people.

The early years of someone's life set the direction for the rest of their life. Scotland has the admirable ambition to be the best place to grow up in for children and young people.

We have policies to get it right for every child and to support children and young people to be safe, healthy, achieving, nurtured, active, respected, responsible and included. The Scottish Government has also committed to incorporating into Scots law the United Nations Convention on the Rights of the Child.

Against that positive background, there remain significant challenges. Long-standing economic difficulties stunt the chances for thousands of young people each year, and the continually evolving digital world brings the good and evil in the world directly into everyone's homes.

How can we help Scotland's young people prepare for, and bring about, a brighter tomorrow? How can we make it the fairer, more inclusive society that will allow every child the opportunity to fulfil their potential?

Poverty

If we are to get it right for every child in the future, Scotland needs to tackle the poverty that blights a third of the population. When Marc Lambert, chief executive of the Scottish Book Trust, spoke to the Futures Forum in 2018, he noted that 25% of

Scottish children are currently living in poverty.¹² Figures released in 2020 showed that, although the levels are lower than 20 years ago, they are on the rise.¹³

Predicted population changes may make the challenge even greater. Areas in Scotland that are seeing population increases, such as Edinburgh and Midlothian in the east, may find it harder to meet increasing service demand, while those seeing population decline, such as Argyll and Bute and Inverclyde in the west,¹⁴ may lose the economically active citizens who help sustain jobs and services in their local communities.

As the Futures Forum heard from Katherine Trebeck, at the time a senior researcher at Oxfam, a life of poverty for a child in Scotland is an extraordinarily bad life: a life of food banks, of shame and stigma, and of not being able to participate in school.¹⁵

Around half a million babies – just over 50,000 a year – are predicted to be born in Scotland in the 2020s.¹⁶ A Scotland without poverty is one where all those children, regardless of their background, grow up in warm houses, with regular meals and the confidence to take on life. They arrive at school each day ready to learn and able to take advantages of the opportunities that exist. Their families have the security that, whatever happens, that will remain the case.

¹² "Scotland 2030: Growing Up In Future Scotland", 6 March 2018: www.scotlandfutureforum.org/scotland-2030-programme-life-in-future-scotland-growing-up/ (Accessed 11/10/20)

¹³ "Poverty in Scotland", Joseph Rowntree Foundation: www.jrf.org.uk/report/poverty-scotland-2020. (Accessed 05/11/20)

¹⁴ "Mid-Year Population Estimates: Scotland, Mid-2019", 30 April 2020: www.nrscotland.gov.uk/files/statistics/population-estimates/mid-19/mid-year-pop-est-19-report.pdf (Accessed 05/11/20)

¹⁵ "Scotland 2030: Our Economy", 3 October 2017: www.scotlandfutureforum.org/scotland-2030-our-economy/ (Accessed 11/10/20)

¹⁶ "Population Projections of Scotland", National Records of Scotland, 21 October 2019: www.nrscotland.gov.uk/files/statistics/population-projections/2018-based/pop-proj-2018-scot-nat-pub.pdf. (Accessed 10/11/20)

For poverty to end, fundamental change is required, whether that is radical redistribution of wealth through taxes and spending, or through what Katherine Trebeck later referred to as predistribution – “changing the way that the economy operates, asking who gets fair shares, and how do we create economic activity?”¹⁷

The Scottish Government is a leading member of a global network of Wellbeing Economy Governments. They have the aim of making the economy work for both the people and planet – meeting human needs without trashing the planet's resources. A wellbeing approach to running the economy would mean a significant change in what we value. That said, fundamental change is coming to Scotland in the next 10 years, in our environment and climate, in the technology we can use and our demography.

As was asked by participants at our events, are we brave enough to take the big decisions as part of those changes to tackle the deep-rooted inequality in Scotland and really get it right for every child? Can we redistribute – or predistribute – Scotland's wealth to make child poverty a thing of the past?

Technology

The lives of children and young people are enriched and defined as never before by the opportunities provided by digital technology. Children and young people can make and keep friends without the barriers of geography; they can study, play and create in ways that match their interests and aptitudes. They can join in communities, both online and real, and they can make their voice heard on a national level.

But, as the videogames entrepreneur Chris van der Kuyl told us, the online world is the same as the real world: there are people who do good things and people who do very bad things.¹⁸ Furthermore, the online world has so far been designed for adults, and with little concern for users' wellbeing. The pull-down-to-refresh feature on many social media, for example, is argued to mirror the addictive experience of using a slot machine.¹⁹

Because of that, children can be exposed to risks far beyond their experience.²⁰ Whereas young people tend to leave home at age 18 or older, they can have full access to the equally exciting and equally dangerous online world at a much younger age²¹ and with much less support.

Many people in their 40s and 50s note the watershed moment when they become responsible – at least in part – for their parents. This can happen as ageing parents become less able to deal with changes in the world around them. A similar role reversal happens much earlier in relation to technology. Young children are often more able to navigate new technology than their parents, and are given greater access because of that.

¹⁷ “Scotland 2030: A Wellbeing Economy?”, 5 February 2019. www.scotlandfutureforum.org/scotland-2030-a-wellbeing-economy/ (Accessed 11/10/20)

¹⁸ “Scotland 2030: Technology and Society”, 10 November 2017: www.scotlandfutureforum.org/scotland-2030-programme-technology-and-society/ (Accessed 11/10/20)

¹⁹ “Social media copies gambling methods ‘to create psychological cravings’”, The Guardian, 8 May 2018: www.theguardian.com/technology/2018/may/08/social-media-copies-gambling-methods-to-create-psychological-cravings (Accessed 11/10/20)

²⁰ “Scotland 2030: Technology and Society”, 10 November 2017: www.scotlandfutureforum.org/scotland-2030-programme-technology-and-society/ (Accessed 11/10/20)

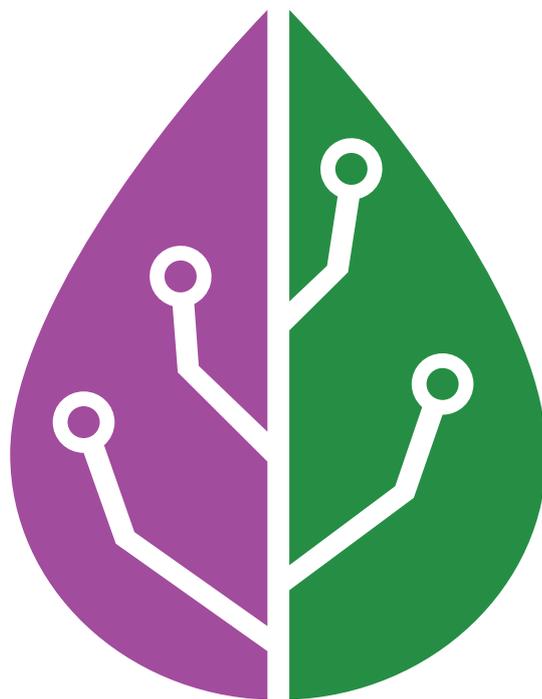
²¹ “Half of 10-year-olds own a smartphone”, BBC News, 4 February 2020: www.bbc.co.uk/news/technology-51358192. (Accessed 11/10/20)

We already share our lives with digital assistants that track what we do in return for making our lives easier: setting reminders and making shopping lists, answering our questions and even just playing music that we want to listen to. That trend will continue: Gillian Docherty from the Data Lab suggested that in 2030 we could have holographic assistants helping us throughout our everyday lives.²²

Over the next 10 years, ever more information will be shared with digital devices – our physical characteristics, our personal habits, our thoughts and fears. This is challenging enough for adults; for children and young people, it turns into reusable data the process of growing up and learning about the world around them.

In 2020, the UK Information Commissioner published its Age Appropriate Design Code,²³ which sets out the standards expected of those responsible for designing, developing or providing online services likely to be accessed by children. This, added to a growing understanding of how digital technology works and a scepticism about the online world, points to a world in 2030 and beyond that children and young people can navigate on their own terms.

But decisions need to be taken to support that move – and they have to involve children and young people from the start. As singer and writer Karine Polwart said, “the future we choose to invest in will be determined by the values we bake into technological developments now”.²⁴ There is a balance to strike: we need to enable children and young people to make the most out of the tools that exist while protecting a group that is still developing intellectually and emotionally.



How can we challenge the unthinking adoption of technology in our children's lives? How can we build in the values that we want at the start of the process? And how can we do that when the tools and the world they give access to are changing almost daily?

²² “Scotland 2030: Our Future Scotland”, Scotland's Futures Forum & RSE Young Academy of Scotland: www.scotlandfutureforum.org/scotland-2030-programme/our-future-scotland/. (Accessed 10/11/20)

²³ “Age Appropriate Design Code”, UK Information Commissioner: ico.org.uk/for-organisations/guide-to-data-protection/key-data-protection-themes/age-appropriate-design-a-code-of-practice-for-online-services/. (Accessed 10/11/20)

²⁴ “Scotland 2030: Technology and Society”, 10 November 2017: www.scotlandfutureforum.org/scotland-2030-programme-technology-and-society/ (Accessed 10/11/20)

Education

The challenge presented by rapid technological change is not only one for lawmakers. Many speakers suggested that technology proposes some existential questions, including for education.

For example, Jamie Coleman, co-founder of the tech incubator Codebase, pointed out that technology will change as children are at school. A child starting school in 2020 at five years old may learn that touch-screen is the standard way of using technology. By 2030 it may be that voice – or even thought²⁵ – is the primary way of controlling or interacting with technological devices. As he put it, given all this change, “What the hell do we teach our kids in school?”²⁶

The education system is rightly a key part of any society’s preparation for the future. Throughout the Scotland 2030 Programme there was remarkable agreement on what we need it to produce: young people with creativity, empathy and the enthusiasm and confidence to continue learning throughout their lives.

This is the case even for jobs not traditionally associated with interpersonal skills. Fintech entrepreneur Georgia Stewart argued that the best software engineers are people people: people who are communicators and facilitators, who can approach life creatively and who have the confidence to deal with the changes that life will throw at them.²⁷

In part, that means accepting – even embracing – the potential for failure, on the part of schools, teachers and pupils. In an event on future jobs, the chief executive of Changeworks Teresa Bray noted that if we don’t fail, we don’t learn. And one thought-provoking idea that emerged in the programme was that of a Museum of Failure, explaining how setbacks are a key part of success.²⁸

Our in-depth work on education in 2030 with the Goodison Group in Scotland²⁹ identified that, to create this kind of education system, significant change is required. Descriptions of the hoped-for future included the phrases “collaborative”, “adaptive”, “free flowing” and “colourful”. For young people, this means having the ability to experiment by working together in different types of teams, by developing empathy for different types of people and learner, and by developing the creativity that will set them apart from robots. It means being encouraged to take risks and to cope with and learn from failure.

Education is a hotly discussed topic in Scotland, as in most parts of the world. It was clear from our work that, to cope with the challenges of 2030 and beyond, we need young people and their teachers to be able to adapt to changing circumstances. They need to be given the freedom to be creative, to take risks and, on occasion, to fail safely.

Is Scotland – both in society and in its Parliament – prepared to give teachers and young people the freedom to do that? If not, how should they prepare for the future?

²⁵ “How to control a machine using your mind”, BBC News, 2 February 2018: www.bbc.co.uk/news/business-42894312 (Accessed 11/10/20)

²⁶ “Scotland 2030: Our Economy”, 3 October 2017: www.scotlandfutureforum.org/scotland-2030-our-economy/ (Accessed 11/10/20)

²⁷ “Scotland 2030: Carbon Positive Jobs”, 5 February 2020: www.scotlandfutureforum.org/scotland-2030-carbon-positive-jobs-for-the-future/ (Accessed 10/11/20)

²⁸ “Schooling, Education and Learning: 2030 and Beyond”, Scotland’s Futures Forum and Goodison Group in Scotland, 6 March 2020: www.scotlandfutureforum.org/scotland-2030-future-schooling-education-and-learning-report/ (Accessed 10/11/20)

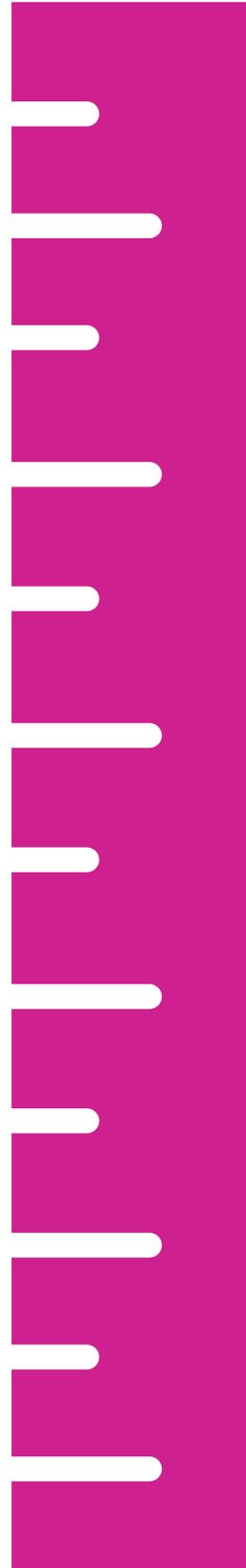
²⁹ “Schooling, Education and Learning: 2030 and Beyond”, Scotland’s Futures Forum and Goodison Group in Scotland, 6 March 2020: www.scotlandfutureforum.org/scotland-2030-future-schooling-education-and-learning-report/ (Accessed 10/11/20)

Growing up in 2030

At the heart of all these challenges are the rights of children. Whether that is the right to grow up safe and healthy, the right to use digital tools designed for them, or the right to take a full part in their own learning, if we want to get it right for every child in 2030, we need a Scotland where children play a full role in their lives. They must feel able to speak up for themselves when things are going wrong for them, knowing that adults will take them seriously and involve them in making things better.

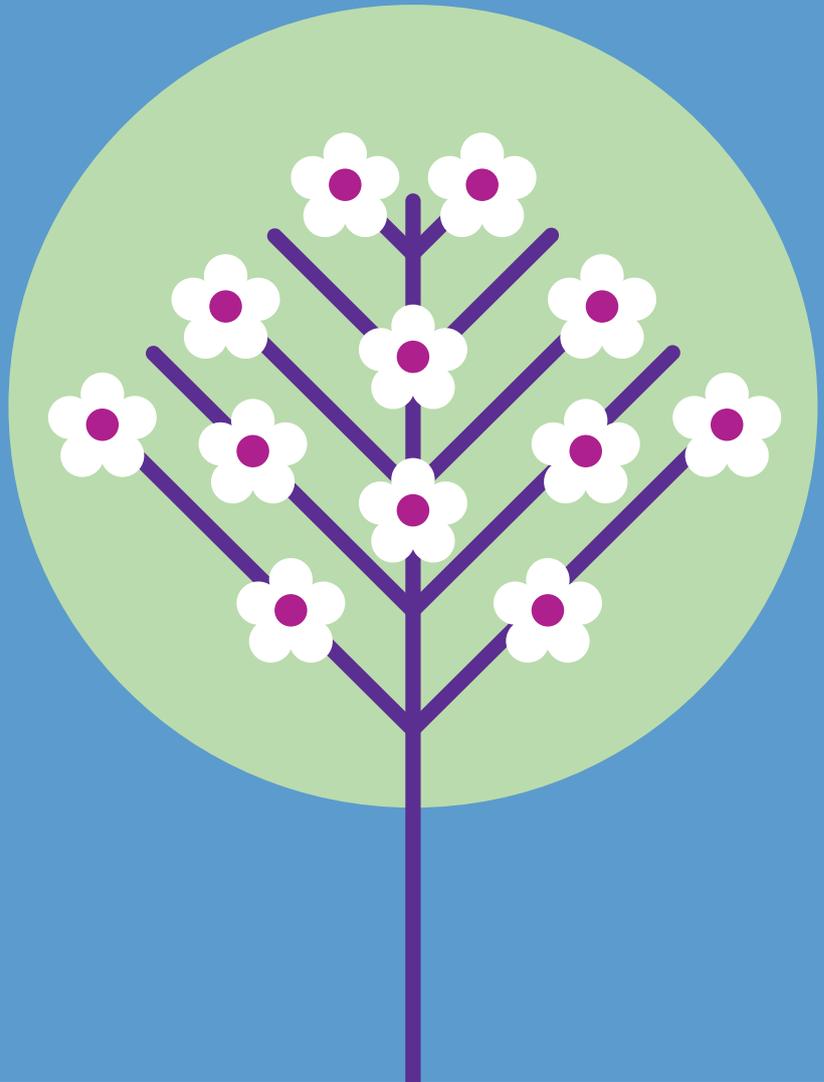
As Cathy McCulloch from the Children's Parliament told us, a children's rights approach does not mean that children get to do whatever they want or that adults lose control. It offers a framework that can transform cultures and encourage the development of mutually respectful relationships between children and adults.³⁰

Children and young people, like the rest of society, face a huge amount of change in the coming decade. If those with power, including the Scottish Parliament, share their power and enable children and young people to play a full role in dealing with that change, it can only help their ability to survive and thrive – and Scotland's long-term future.



³⁰ "Scotland 2030: Growing Up In Future Scotland", 6 March 2018: www.scotlandfutureforum.org/scotland-2030-programme-life-in-future-scotland-growing-up/ (Accessed 11/10/20)

working lives



As with other aspects of our lives, significant change is predicted for our working lives.

For many people, the time they spend at work forms the largest part of their lives. This will be increasingly the case into the 2020s as the retirement age increases and as the division between work and home life becomes more blurred.

As with other aspects of our lives, significant change is predicted for our working lives. The challenge will be to maintain and build on the gains in workplace fairness and equality secured during the 20th century. How can Scotland make the world of work more positive in 2030 both for those in work and for the environment on which we all depend?

Climate positive jobs

The effects of climate change on our lives will provide the greatest challenge to Scotland over the coming decade and beyond. Although this affects all aspects of our lives, Scotland's greenhouse gas emissions are largely driven by our economy: our contribution to emissions is largest during our working lives.³¹ To meet the ambition of becoming a net zero emitter of greenhouse gases by 2045, our working lives will therefore have to change radically.

This is particularly the case in two large and important industries for Scotland: oil and gas, and tourism. The oil and gas industry has committed to halving its operational emissions by 2030³² but it is the emissions from the use of fossil

fuels in our energy and transport system that contributes so much to Scotland's environmental impact.

To meet our climate ambitions, it was suggested in our events that we will need a smaller oil and gas industry – if one exists at all in the future. Are we planning effectively for a future without oil and gas? What will replace it in terms of jobs and tax revenue?³³

Likewise, there were questions about the sustainability of tourism. It has been a success story for Scotland: increased visitor numbers to Scotland have stimulated rural economies, brought employment and helped preserve rural communities and services. But it depends on the carbon-intensive process of travel, particularly air travel. And some contributors, including the photographer Colin Prior, have suggested that in some places it has trashed the environment in the name of economic growth.³⁴

Travel broadens the mind, and Scotland is undoubtedly enriched by the visitors who come here, but how can we build a tourism sector that is sustainable in the long term – economically, socially and environmentally?

On the positive side, there are massive opportunities in decarbonising our working lives. As well as jobs that haven't existed before, there is an opportunity for jobs to be created that have a clearly positive impact on sustainability.

³¹ "If you act your age, what's your carbon footprint?", New York Times, 10 November 2011: green.blogs.nytimes.com/2011/11/10/if-you-act-your-age-whats-your-carbon-footprint/. (Accessed 11/10/20)

³² "Climate change: Oil and gas sector 'to halve emissions by 2030'", BBC News, 15 June 2020: www.bbc.co.uk/news/uk-scotland-scotland-business-53051850. (Accessed 10/11/20)

³³ Scotland 2030: Climate Positive Jobs, 5 February 2020: www.scotlandfutureforum.org/scotland-2030-carbon-positive-jobs-for-the-future/. (Accessed 05/11/20)

³⁴ "Scotland 2030: Our Environment in 2030", 21 June 2017: www.scotlandfutureforum.org/scotland-2030-our-environment-in-2030/. (Accessed 10/11/20)

An increase in climate change-related anxiety has been identified,³⁵ and it is an issue that is likely to grow as the effects of people's behaviour on our climate becomes ever clearer. Empowering people to build their own solutions and make their own contributions will have both a health and economic benefit.

In the economic transition ahead, there are clear pathways through which many sectors can progress to a more sustainable future: farming, energy, transport and indeed tourism. Much of this could bring economic opportunities if Scotland switches investment towards sectors and industries that bring long-term benefits. How can Scotland turn the current economic success stories into the sustainable economy of the future?

At the same time as reducing our greenhouse gas emissions, we will be adapting to the effects of the climate change that is already happening. For Scotland, climate change means more extreme weather, with warmer weather overall: wetter winters with more floods, and hotter summers with more droughts. Crucially, it also means (even) more unpredictable weather: high winds, heavy rainfall and snow storms.³⁶

Britain is already seeing its first climate change refugees – people in a north Wales village have been told their homes will be under water by the 2050s.³⁷ With increasing numbers of properties in Scotland at risk from flooding,³⁸ such heart-breaking situations should encourage us to look proactively at how we can support people whose lives and livelihoods are threatened by climate change.

As Teresa Bray from Changeworks noted, the jobs required to deal with these changes may provide a clue to the type of work we'll be doing in 2030.³⁹ Homes, other buildings and our transport, energy and water infrastructure will require a huge amount of work to become more energy efficient and resilient to the weather. The building trade will need more engineers, joiners, plasterers and other specialists to meet demand and develop different ways of working.

Given that we can predict in some ways how Scotland will be affected by climate change, are we doing enough to retrain people and ensure we have the skills within the country to protect communities and individuals alike?

³⁵ "The harm from worrying about climate change", BBC Future, 10 October 2019: www.bbc.com/future/article/20191010-how-to-beat-anxiety-about-climate-change-and-eco-awareness. (Accessed 05/11/20)

³⁶ "Scotland 2030: How resilient and well-functioning will Scotland's environment be?", Dr Stephanie Smith, 21 May 2017: www.scotlandfutureforum.org/scotland2030-our-environment-2017-sefari-research/. (Accessed 05/11/20)

³⁷ "The UK's first climate change refugees?", BBC News, 2 March 2020: www.bbc.com/news/av/uk-51667018. (Accessed 05/11/20)

³⁸ "How resilient and well-functioning will Scotland's environment be?", Dr Stephanie Smith, 21 May 2017: www.scotlandfutureforum.org/scotland2030-our-environment-2017-sefari-research/. (Accessed 05/11/20)

³⁹ "Scotland 2030: Carbon Positive Jobs", 5 February 2020: www.scotlandfutureforum.org/scotland-2030-carbon-positive-jobs-for-the-future/. (Accessed 10/11/20)

Technology enabled work

We are in the midst of fourth industrial revolution. Technological change, taking place at an unprecedented rate, is likely to cause significant changes in how we live our lives and the jobs we do.

As we heard in our event on technology and society, the capability of a mobile phone in 2020 eclipses the desktop computer of 2010,⁴⁰ and computing power has become almost infinite. The pace of change is incredible: some technologies seen as standard now, such as video calling on smartphones, were unthinkable only a few years ago.

We recently have seen the effects of disruptive innovation in fields like transport (with Uber), retail (Amazon) and tourism (AirBnB). These disruptors have revolutionised the sector they act in, causing job losses in traditional companies and significant changes in our lives.

Each of the disruptors noted have made things better, cheaper or more convenient for enough people to become a success. But they also have an effect on wider society. Uber has been one of the leading exponents of facilitating self-employment rather than employing people directly. Amazon's success has had a direct effect on the viability of high-street shops. And AirBnB has proved such a success that some cities in the world report a housing shortage in tourism hotspots.

Those affected have responded, such as by taking court cases to challenge the new models of working,⁴¹ finding new ways to use derelict space,⁴² or by introducing new regulations.⁴³ In the transition, however, many people's jobs have been lost and lives have been changed – sometimes for the better, and sometimes for the worse.



We can expect similar transitions to be happening in every sector of the economy over the coming decade. As artificial intelligence develops, similar disruptors can be expected in every field of work over the coming decade. Artificial intelligence is already used in places traditionally seen to be immune, such as journalism⁴⁴ and catering.⁴⁵ Professions such as accountancy and the law could be affected by automation in the way that administrative and manufacturing jobs have over the past decades. According to IPPR Scotland, nearly 50 cent of jobs (1.2 million) in Scotland are at high risk of automation.⁴⁶

Equally, technology will mean that the jobs that don't disappear will still change radically. How can we support people to adapt and protect those who need more time? As also noted by IPPR Scotland, over 2.5 million adults of working age in Scotland today (nearly 80 per cent) will still be of working age by 2030. We need people to be able to change jobs and learn new skills, and we need a skills system ready to work with people throughout their careers.⁴⁷

⁴⁰ "Scotland 2030: Technology and Society", 10 November 2017: www.scotlandfutureforum.org/scotland-2030-programme-technology-and-society/ (Accessed 11/10/20)

⁴¹ "Uber loses latest legal bid over driver rights", BBC News, 19 December 2018: www.bbc.co.uk/news/business-46617584. (Accessed 10/11/20)

⁴² "New scheme to support town centres", Scottish Government, 1 March 2019: www.gov.scot/news/new-scheme-to-support-town-centres/. (Accessed 10/11/20)

⁴³ "Edinburgh could become 'control area' where holiday flats always need planning permission", Edinburgh Live, 17 January 2020: www.edinburghlive.co.uk/news/edinburgh-news/edinburgh-could-become-control-area-17587180. (Accessed 10/11/20)

⁴⁴ "General Election 2019: How computers wrote BBC election result stories", 13 December 2019: www.bbc.co.uk/news/technology-50779761 (Accessed 10/11/20)

⁴⁵ "The robots that can cook and serve your food", BBC Online, 1 July 2020: www.bbc.co.uk/news/av/technology-53178464. (Accessed 10/11/20)

⁴⁶ "Scotland skills 2030: The future of work and the skills system in Scotland", IPPR Scotland, 7 May 2017: www.ippr.org/publications/scotland-skills-2030. (Accessed 10/11/20)

⁴⁷ "Scotland skills 2030: The future of work and the skills system in Scotland", IPPR Scotland, 7 May 2017: www.ippr.org/publications/scotland-skills-2030. (Accessed 10/11/20)

During the Covid-19 pandemic, significant numbers of people have had to work from home. This is a positive example of technology supporting jobs through change. It also offers opportunities to rural businesses and communities more widely if work is less dependent on physical proximity. With robust digital infrastructure, technology may provide rural businesses and the communities that depend on them a more positive future.

Throughout history, technology has been used to build better lives. The same can be true over the coming decade, but the pace of change far exceeds anything experienced in the past. In this situation, what are we doing to support those already in the workforce to prepare for the change ahead?

Gender equal working lives

The fight for equality in our working lives has a long history, and many battles remain. In our programme, we considered what a gender equal workforce would look like in 2030 and beyond – the benefits and the challenges in achieving it.

A more gender balanced society reaps rewards in many ways: it enables women in mixed-sex couples to take more of a role in the economy, and it allows men in those couples to take more of a role in domestic and caring duties. This enriches both parts of our lives and, crucially, enables families and households to build lives that match their desires rather than societal conventions.

Scotland has a long way to go: we remain an unequal society from a gender point of view, particularly in our working lives. As we heard in our event on a gender equal workplace, women are traditionally overrepresented in low-paid sectors, such as the ‘four Cs’ – caring, catering, clerical and cleaning – and underrepresented in positions of power.⁴⁸ Where they are represented, they are generally paid less. They also undertake a majority of unpaid work at home, such as housework, cooking and childcare, and it is estimated that, at the current rate, it will take until 2080 to close the gender pay gap.⁴⁹

For Scotland to benefit from the social and economic benefits,⁵⁰ it has to build a gender balanced workplace and home. Cultural traditions need to be broken around menstruation, pregnancy and menopause: three realities of life for many women that have a significant physical and emotional effect and which are only now beginning to be acknowledged publicly, let alone considered properly by employers.

We will not achieve gender equality in the workplace of the future without gender equality in the home⁵¹ and a fairer split of the unpaid work of caring and domestic duties. Given that mothers on maternity leave do the most amount of unpaid work,⁵² increasing the uptake of paternity leave could help to balance things by increasing the amount of unpaid work that men do.

⁴⁸ “Scotland 2030: Work in a Gender Equal Country”, 5 June 2018: www.scotlandfutureforum.org/scotland-2030-programme-life-in-future-scotland-work-in-a-gender-equal-country/ (Accessed 10/11/20)

⁴⁹ “Gender pay gap progress dismally slow, says charity”, BBC News, 29 October 2019: www.bbc.co.uk/news/business-50220175. (Accessed 10/11/20)

⁵⁰ If women in Scotland were supported to set up start-ups at the same rate as men, they would add an additional £13 billion to the Scottish economy: “Scotland 2030: Work in a Gender Equal Country”, 5 June 2018: www.scotlandfutureforum.org/scotland-2030-programme-life-in-future-scotland-work-in-a-gender-equal-country/ (Accessed 10/11/20)

⁵¹ “Young Men Embrace Gender Equality, but They Still Don’t Vacuum”, New York Times, 11 February 2020: www.nytimes.com/2020/02/11/upshot/gender-roles-housework.html. (Accessed 10/11/20)

⁵² “Women shoulder the responsibility of ‘unpaid work’”, Office for National Statistics, 10 November 2016: www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/articles/womenshouldtheresponsibilityofunpaidwork/2016-11-10. (Accessed 10/11/20)

This would allow women to return to work on a more equal footing. It may also have an accelerator effect while men remain over-represented in positions of power. As men in positions of power gain more experience of childcare, they may be able to use their power to change the culture and policies of the workplace.

A more gender equal society offers opportunities for everyone, particularly when considering the challenges of the future. The values of any algorithm are determined by those who design it. Something designed by young white men (which the tech sector still predominantly is) will serve young white men better than anyone else. As these algorithms affect and control more and more of our lives, it is vital that they are designed by a diverse workforce that understands their affect on all sectors of the population.

The same diversity of workforce will improve decision making on our response to climate change, which we know will affect people differently depending on their gender, wealth and geography.

And the emotional and physical burden of caring needs to be shared fairly for our society to cope with the increased responsibilities inherent in an ageing population. More people of working age will take on caring responsibilities for their parents and other relatives. While provided with love, this care is often physically tiring, mentally stressful, and disruptive to everyday life, including work. For as long as that work falls mainly to women, it will hamper their ability to take as full a role as possible in the economy.



Most people agree on the importance of building a gender equal workforce, but, as the figures show, Scotland is not making enough progress. Are we doing enough to break the cultural stereotypes and expectations?

People of working age will need more time for caring responsibilities at both ends of life – for their children and parents. There is an opportunity to manage the challenges from an ageing population better in having a more gender-equal society. Can we afford not to?

Working lives in 2030

Our lifestyles and economic models will have to change to meet the demands of climate change and the opportunities of technology. In making these changes, we can take an active part in how we do work, how we design jobs, and how we share the pretty unhappy elements of work – how we share those tasks and how we pay them for it.

Technology has the potential to transform global communication. This includes rural communities in Scotland, where connectivity is key to life. But it also includes communities that may not have access to technology due to poverty or may not have the skills to make the most of it.

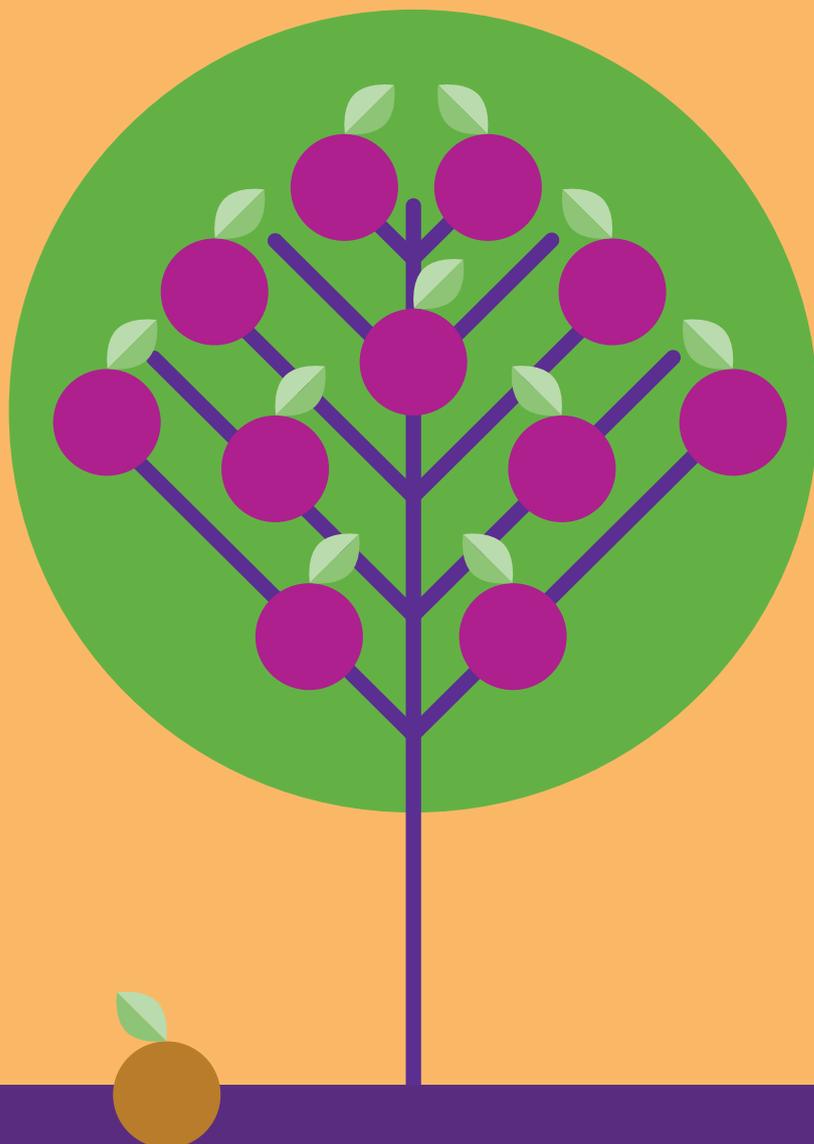
At the same time, we have to frame everything we do through the existential threat that is climate change. Consumption and travel have to decrease. Extreme weather will challenge the predictability of our lives as well as the resilience of the things we depend on – food supply lines, transport links and the buildings we live and work in.

The future of work, and our working lives, is uncertain. Some benefits can be predicted from an increase in equality: a fairer split of work and domestic duties, a broader set of opportunities for women and men, and a better balance between work and home life.

But they are achievable only with brave decision making and risk taking, including in the Scottish Parliament, and an acceptance that, for Scotland's long-term future to be sustainable, we have to change what we are currently doing in many different areas.



growing older



There is great untapped potential in the knowledge and experience of our more senior citizens



In 2030, there will be more older people – both in real terms and as a proportion of the population. For every 100 people aged 80 or over in 2016, there will be about 185 in 2041 in Scotland. The rest of the Scottish population is due to remain roughly the same.⁵³

This is a positive story in many respects: people are living and making a positive contribution to Scottish life for longer, and there is great untapped potential in the knowledge and experience of our more senior citizens. As we age, however, our physical capability starts to decline. The decline takes place at different rates for different people, but it is a fact of life that more of us will need help with daily activities of living as we grow older.

If we accept early on in life that we will probably be dependent on other people as we grow older, this can help us plan for our older age. We can act to mitigate the physical decline where possible, and we can plan for the adaptations both on a personal and community level. It is by looking forward, both as individuals and as a society, that we can make the most of the opportunities inherent in an ageing population.

Embracing the reality of growing older

Most of us will come to a time in life when we face an irreversible decline in our physical health. Many of us will also come to a point when we can no longer live as independently as we would wish. This does not mean that our lives are at an end: there are many ways that the experience of ageing can be improved, even as health declines or some independence is lost.

For most people, growing older will involve one or more chronic medical conditions – physical or mental ailments that affect our abilities to live as we would hope. This is a natural process and one that we can prepare for.

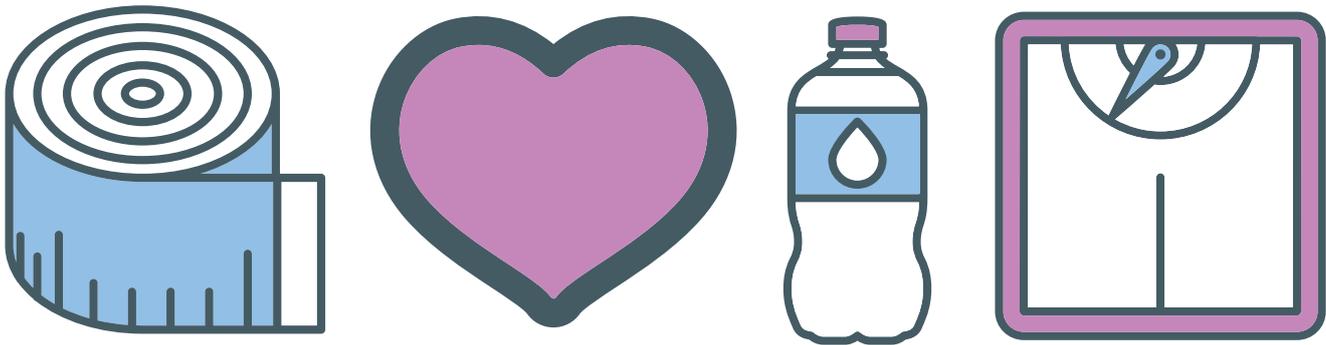
At our event on social care for older people, Professor Carol Jagger from the University of Newcastle predicted that the number of people requiring 24-hour care will rise by about a third by 2035. The number of those aged 85 and over (the fastest-growing section of the population) who will require 24-hour care will almost double. Increasing rates of dementia will also mean that more of us will require significant support to live our lives.⁵⁴

We need to be clear what this future means for us as individuals. Although it is not particularly enjoyable to think about the negative aspects of our future, it helps us prepare. In her presentation, Professor Jagger described the different types of dependency that older people have – a level based on the help that someone needs with activities of daily living. These can give us an insight into the kind of help we might need when we are older.

Someone who has high dependency requires 24-hour care because, for example, they are bedbound or chair-bound and unable to get to or use the toilet without help. They can need help feeding, are often incontinent, need help dressing and/or have severe cognitive impairment.

⁵³ “Scotland 2030: Growing Older in Future Scotland”, 3 October 2018: www.scotlandfutureforum.org/life-in-future-scotland-growing-older/. (Accessed 10/11/20)

⁵⁴ “Scotland 2030: A Sustainable Future for Social Care for Older People”, 16 November 2018: www.scotlandfutureforum.org/scotland-2030-a-sustainable-future-for-social-care-for-older-people/. (Accessed 10/11/20)



Someone with medium dependency needs help preparing a meal, dressing or taking medication, while with low dependency someone requires help less often than daily to cut toenails, to shop, or to do light or heavy housework.

It can be distressing to think of ourselves, or our loved-ones, in those situations, but they are very likely to happen. And in Scotland in the future, the majority of us will become at least partially dependent on other people's help. We can ignore that, or we can prepare.

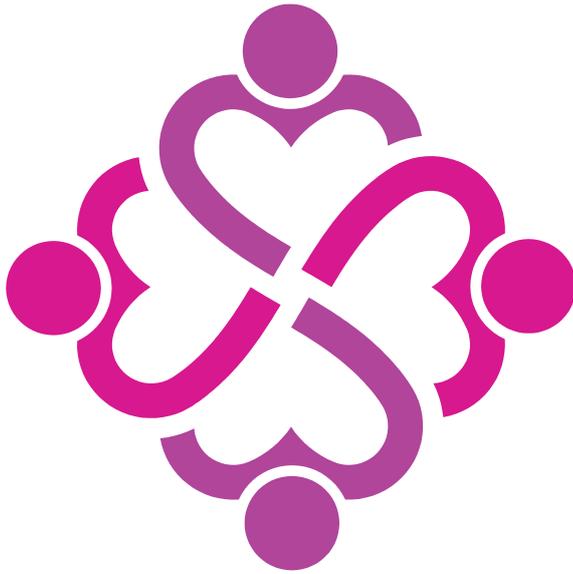
Part of those preparations are at an individual level. At our event on ageing, it was pointed out that physical decline is not inevitable.⁵⁵ Without exercise we start to lose muscle mass after we turn 40, but with exercise we can help ourselves remain fit and healthy.

This obviously won't work for everyone, but an increase in strengthening exercises from our 40s onwards can mean that more of us in our 80s and 90s will be able to go to the toilet by ourselves. In our programme it was suggested that we need to look further ahead ourselves and be armed with the knowledge that our physical health is often largely in our control.

As noted previously in relation to poverty, population-level factors obviously affect the ability of individuals to live life to the full. But with more knowledge and positive role models, we can build a healthier future for ourselves.

What can we do on a population and individual level to make ourselves fitter, and stronger for longer? If we are living into our 80s, 90s and beyond, we need to take the steps in our 30s, 40s and 50s to prepare.

⁵⁵ "Scotland 2030: Growing Older in Future Scotland", 3 October 2018: www.scotlandfutureforum.org/life-in-future-scotland-growing-older/. (Accessed 10/11/20)



Caring for the carers

As much as we can do our best to prepare individually for a healthy future, it is clear that Scottish society will have to organise itself to care for more older people in future, including more people who have multiple diseases. As Professor Carol Jagger told us, care in the future will be even more complex than it is now.⁵⁶

With more people needing care, we will need more carers, both professionally and in informal family settings. As we see in relation to a gender equal workforce, caring is a traditionally undervalued and underfunded profession and sector. Given the required increase in the number of carers by 2030 – and the fact that this is not a job that can be automated – that has to change. This means paying carers more, training them appropriately and speaking more about the important work they do.

Informal carers will need greater understanding. There is already better understanding of the challenges for parents in the workplace. There will be an increasing number of us who face similar challenges caring for our parents or elderly relatives.

There is a gender aspect to this trend, too. As Professor Jagger noted, most older people who receive care from a loved-one do so from a child – and most often a daughter, as women still do most caring. These women would be around 60 years old – the women whose state pension age is increasing and who therefore are having to work longer.⁵⁷

Overall, Scotland will have to consider the wider implications of someone having to care – financial, psychological and physical – and we will have to provide more support for those taking on the role. Those providing informal care need access to flexible working and caring leave, they will need advice and support, and they will need access to respite care – short-term care for their loved-one that enables them to get a break from what can be a draining existence. Perhaps most importantly, they need friends, colleagues and family who understand and share the load. As was noted at our event on social care, caring can be a lonely business.⁵⁸

With more people needing care, we need to consider who will look after them and where. Care needs will be much more complex. The increase will provide a challenge to physical and mental health of carers, particularly those who are caring for a loved one. But a well-supported carer will produce better outcomes for the individuals involved and society as a whole. We all need to consider what that means for ourselves, our families and our communities.

⁵⁶ "Scotland 2030: A Sustainable Future for Social Care for Older People", 16 November 2018: www.scotlandfutureforum.org/scotland-2030-a-sustainable-future-for-social-care-for-older-people/. (Accessed 10/11/20)

⁵⁷ "Scotland 2030: A Sustainable Future for Social Care for Older People", 16 November 2018: www.scotlandfutureforum.org/scotland-2030-a-sustainable-future-for-social-care-for-older-people/. (Accessed 10/11/20)

⁵⁸ "Scotland 2030: A Sustainable Future for Social Care for Older People", 16 November 2018: www.scotlandfutureforum.org/scotland-2030-a-sustainable-future-for-social-care-for-older-people/. (Accessed 10/11/20)

Building sustainable communities

As well as thinking through how we can cope as individuals with the changes from an ageing population, we will have to change the environment around us to meet our changing needs. The Scottish Government has an aim of enabling people to stay at home for as long as possible as they get older.⁵⁹ As our needs change, our homes – and the communities they are in – will need to change to reflect that.

In our event on housing and older people, it was noted how central housing is to our lives. It can be overlooked in favour of other services, but if people are able to stay in the house they want – whether that is by adapting the house they've lived in for years or by moving to a place better suited to their needs – they are more likely to live independent and healthier lives.

This concept of rightsizing – being able to live in the right house in the right place at the right time – relies on ready access to two things. First, if there is a variety of housing in their local communities, those who would benefit from moving are more likely to do so. Moving house later in life is a big upheaval; not having to go far, along with incentives as there are in Wales for “last-time buyers”, would make it an easier choice to make.

Secondly, adaptations in the home can make a huge difference. Technological solutions, such as alarm systems and smart doorbells, can make life safer – as long as the systems are secure from hacking. And ramps at the front door, grab rails in bathrooms and wider doorways and stairlifts can make living much more comfortable. Sometimes the simplest changes can be the most effective.

As noted above, many of us will need to live with greater support from professional carers. This will mean that we need more care homes in our communities. Professor David Bell outlined during our programme that, assuming the same proportion of the population stay in care homes, the growth in the number of self-funded care home places will be from 10,000 to 16,000.⁶⁰

This 60% increase in care home places over 10 years provides an opportunity to improve the living experience for those in care homes. With new

buildings to be built or adapted, very different spaces can be made for us as we grow older – ones that meet our increased care needs and the imperative to make our lives more sustainable. And, as is happening more and more, care homes can be built that are a part of the cross-generational communities in which they are sited.

After all, as was also pointed out at our event on housing and ageing, housing in its broadest sense also includes consideration of place and belonging.⁶¹ Housing policies for older people must support these ideas: care homes and sheltered housing shouldn't be a place where old people go to get older and eventually die; they should be a part of the community where people can meet across the generations and pursue their interests and hobbies, whether that is in art, music, sport or culture.

Much more work is needed to make our communities more accessible. As an example, in research for the Futures Forum, Marli de Jongh noted that there is more space for smoking than bicycle parking at the venue for the 2021 UN climate change conference COP26.⁶²

In making our wider communities more accessible for older people, we will make them more accessible for everyone. Clear signage, well-lit spaces and plenty of seating will help people with dementia; they will also help young families, teenagers meeting their friends and people who use wheelchairs. Access for some cars and delivery vehicles will remain vital, especially for those with impaired mobility, but it will help us all if we prioritise walking and accessibility in the design of the communities we will be renovating over the coming decade.

Where we live, both our homes and our communities, has a massive impact on our wellbeing and health. If, as our population ages, we take account of the changing needs of older people, we can build healthier, more sustainable and more connected communities for us all.

⁵⁹ “Age, Home and Community: next phase”, Scottish Government, 30 August 2018: www.gov.scot/publications/age-home-community-next-phase/ (Accessed 10/11/20)

⁶⁰ “Scotland 2030: A Sustainable Future for Social Care for Older People”, 16 November 2018: www.scotlandfutureforum.org/scotland-2030-a-sustainable-future-for-social-care-for-older-people/. (Accessed 10/11/20)

⁶¹ “Scotland 2030: Housing and Ageing”, 23 January 2019: www.scotlandfutureforum.org/scotland-2030-housing-and-ageing/. (Accessed 10/11/20)

⁶² “Stealing our cities: land-use analysis”, Marli de Jongh, 11 July 2020: www.scotlandfutureforum.org/stealing-our-cities-land-use-analysis/. (Accessed 10/11/20)

Growing older in 2030

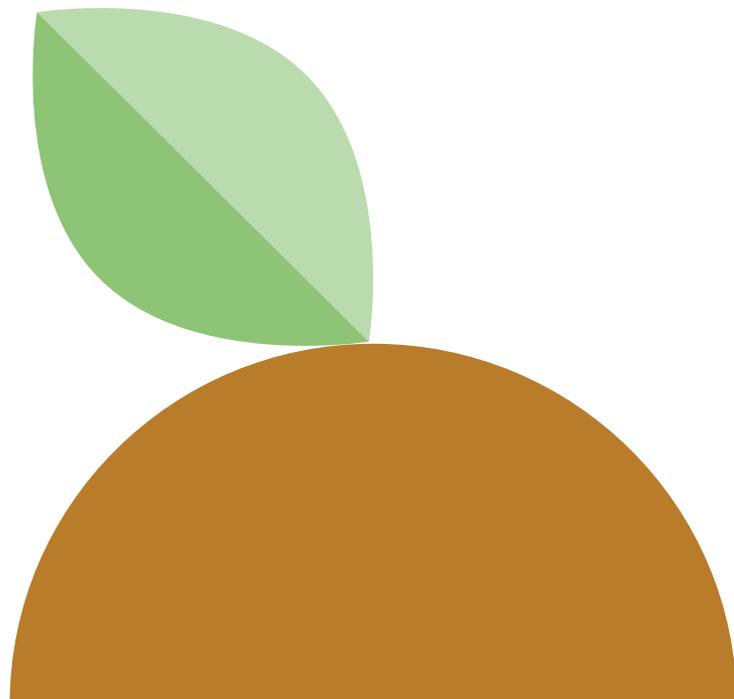
Getting older is much better than the alternative. And although there are many challenges, there are many positives to having an ageing society. Negative expectations can easily become self-fulfilling prophecies, and it was argued during our programme that we should have high expectations of older people.

An honest view of the future can only help. If we discuss within our families the potential that we will need significant care and openly consider the things that we can do to keep ourselves as healthy as possible, that will help us meet the challenges face on – and avoid some of them entirely.

Ageing involves a decline in some ways, but it also involves growth in others – in experience, expertise and perspective. Our older population has much to give and can be written off too early. A society that plans for and successfully deals with the difficult parts of an ageing population – such as outlined above – can reap the rewards of the positive parts of an ageing population. This can be an experienced, flexible workforce. It can be grandparents and others with time and love to give to younger generations. It can be a society that values the different contributions and perspectives that come with older age.

Scotland is an ageing society. If public authorities including the Scottish Parliament can prioritise making our communities work for older people, that will enable us all to live a more enjoyable and meaningful life for longer.

A sustainable care system, accessible communities and an understanding of what it means to grow older will leave us all in a stronger position to face the future.



death and dying



And, of course, we will all face the end in the end.

We are all going to die: everyone reading this report; everyone who participated in the events leading up to it. It's a brutal fact, understood in the abstract by everyone but necessarily pushed to the back of our minds.

During the Covid-19 pandemic, the reality of death has been with us in a way not experienced outside wartime. With death statistics announced daily and changes to our everyday lives being made in response, many more people have been forced to grieve for loved-ones, and consider their own mortality, than would otherwise have been the case.

Notwithstanding that, it was suggested during our programme that in Scotland we have a culture where death is medicalised and compartmentalised. But this is one issue that affects us all both directly and indirectly. The deaths of our loved ones have significant effects on all aspects of our lives: our health, both physical and mental, our relationships and our ability to work. And, of course, we will all face the end in the end.

Over the next 10 years, the process of dying and grieving is likely to become more complicated. How can we live as full a life as possible if we are not prepared for the end?

Dealing with dying

In 2030, more people will be dying. The increase in Scotland's population means that there will be more deaths: more funerals, more grieving, more transitions to life without a loved one.

Perhaps more pertinently, death is becoming a longer process. Long-term degenerative conditions slowly rob people of different aspects of their being: their personality, their mental capacity, and their physical abilities. Seen particularly in conditions such as dementia, this means that people are losing cherished aspects of their loved ones before they die.

With the predicted increases in these conditions, more and more of us will experience this anticipatory grief – the grief at losing a loved one as their personality and/or mental capacity changes. But it does not replace traditional grief; indeed, it may make it harder as people mourn not just for the loss on death, but also when reflecting again on the loss before death.

As Richard Holloway noted in our event on death and dying,⁶³ the way society deals with death has changed in the past 50 years. People encounter death in a much narrower way than before: we are much more likely to die in a hospital than at home and, with the decline of religion, we are now more likely to have a doctor by our deathbed than a priest. The doctor's main preoccupation is to delay our death rather than to attend to our spiritual needs – or those of our loved-ones.

This medical approach to death is also expensive. A significant amount of the NHS budget is spent on the last year of patients' lives, a fact that prompted a variety of reflections at our event on death in the future.⁶⁴

Questions of assisted dying came up, but there are a host of other questions about medical intervention. While we want doctors to keep us alive, should life be prolonged beyond our ability to experience joy or sanity? Should we spend less on prolonging life and more on allowing people to experience a good death? After all, what do we want for our death?

⁶³ "Scotland 2030: Death and Dying", 6 November 2018: www.scotlandfutureforum.org/scotland-2030-death-and-dying/ (Accessed 10/11/20)

⁶⁴ "Scotland 2030: Death and Dying", 6 November 2018: www.scotlandfutureforum.org/scotland-2030-death-and-dying/ (Accessed 10/11/20)

Preparing for the inevitable

As with ageing, there is a lot to be gained from preparing and talking about death. Progress has been made in Scotland, and most people are aware of the need to make a will. But making it clear what happens to your property on your death does not help you or your loved ones make a decision on how, and indeed whether, to keep you alive when your body begins its final journey.

There remains a taboo in Scotland about discussing death. It is an uncomfortable discussion to have with anyone, perhaps because it touches on a fear deep in us all. Indeed, as Richard Holloway suggested, it may be useful to explore exactly what people are fearful of. Do we fear what awaits us in the afterlife? Do we fear dying alone in hospital or in pain? Or is it an existential fear of no longer being here?⁶⁵

One way to tackle the taboo would be to encourage people to discuss their own hopes for their death in their 40s and 50s – well before most will have to take decisions directly about it. For example, an increasing number of people want to die at home rather than in hospital. As we face death there is a role for hospitals in minimising pain, breathing difficulties and nausea. How can we ensure that people can die in their own homes, while maintaining the best medical care on offer?

Equally, given that medical staff and care home staff often have to make difficult decisions about resuscitating elderly patients, do we not all have a responsibility to help clinicians and family members by documenting our wishes for end of life care?

It is also important to remember that death can happen at any age: it is not the preserve of elderly people. It is particularly important for those with life-limiting conditions to be able to have good conversations about death with someone who has the ability to listen and help them with their planning.

Can we help people grieve? Preparing for death, by leaving a letter and resolving differences, also helps those who are left to grieve.

There are public policy discussions to have about these intensely personal decisions. Some health authorities in Scotland are considering how to build more capacity within our communities to enable families, neighbours and friends to support those who wish to die at home. Can such a policy be implemented at scale?

Should the Scottish Parliament and other public authorities do more to help create the institutions and facilities that we need for death and dying?

⁶⁵ "Scotland 2030: Death and Dying", 6 November 2018: www.scotlandfutureforum.org/scotland-2030-death-and-dying/ (Accessed 10/11/20)

Death and dying in 2030

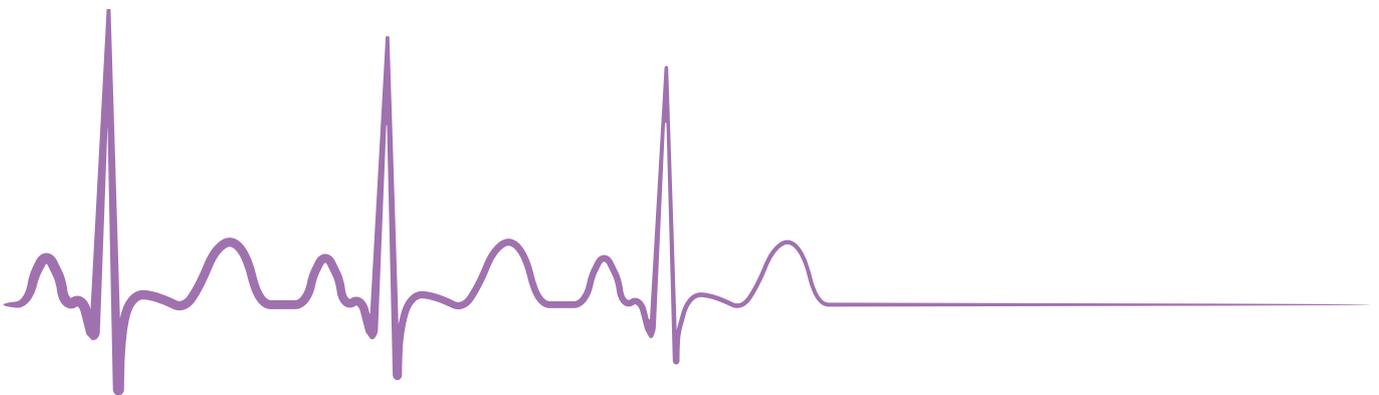
Can we, as Richard Holloway suggested, celebrate the sadness in dying?⁶⁶ Although Scotland is changing, death remains a difficult subject. There is a natural reluctance to talk about it, but if we break the taboos we can prepare properly.

There is a great value in making dying well an explicit public health goal. Encouraging people to think ahead to the end of their life and helping them to prepare will make hard decisions easier to take and tough times pass more smoothly. When the time comes to turn off life support, to switch to palliative care medicine or simply to say goodbye, it can only help for those involved to know what the person dying wanted.

As Richard Holloway said, life fights hard against going, and it is natural to experience a deep sense of loss when we contemplate those experiences which we will not be here to witness, be it the next spring or our grandchild's graduation.

But for the long-term health of our families and society, we need to look the future in the face and prepare for what awaits us. This is the case both for individuals and for institutions who affect our lives, including the NHS, local authorities and the Scottish Parliament.

A Scotland that embraces the inevitability of death is one that is more at ease with the reality of life.



⁶⁶ "Scotland 2030: Death and Dying", 6 November 2018: www.scotlandfutureforum.org/scotland-2030-death-and-dying/ (Accessed 10/11/20)

conclusions



Conclusions

At the start of this report, we identified some key trends that will shape our shared future: climate change, technological innovation, and a changing population. Individually and jointly, these three trends will have a huge bearing on the kind of country Scotland is in 2030 and beyond.

As we found throughout the Scotland 2030 Programme, the key message is one of change. The environment in which we live will change. The tools we can use will change. And people's views, reactions and lives will all change. As we have heard, the pace of change has never been as fast as it is at the moment, and it will never be this slow again.

Change, whether welcome or not, is never straightforward. To cope with this change – to enable as many people in Scotland to thrive through this change – it is vital that we are honest about what is happening and about the options that we have. That is the case both for individuals and societies.

To tackle climate change, we may have to turn our back on success stories in our economy and force people to stop doing things that emit greenhouse gases. To deal with technological innovation, we may have to delay or reject the improvements in some areas to check that the innovation that brings them does not hurt people more. And to make the most of an ageing population, we may have to all face the reality of our own ageing and death much sooner than we want.

Throughout the programme, a recurring theme from presenters and participants was giving people a voice and a role in their own destiny – whether it is in what and how their school teaches, the future of their community, or their own approach to death. And in doing that we have to look beyond tomorrow, next month or next week. A clear-eyed and positive view of the future can help us build the positive future we all want.

Acknowledgements

Scotland's Futures Forum is the Scottish Parliament's futures think-tank. We work on a non-party basis to promote research and to stimulate debate on the long-term challenges and opportunities that Scotland faces. We aim to inform MSPs and others and enable them to consider the effects of decisions taken today on Scotland's long-term future.

Our work is guided by board of directors, who oversaw the production of this report:

- > Rt Hon Ken Macintosh MSP
- > Claudia Beamish MSP
- > Maurice Corry MSP
- > Sir Andrew Cubie
- > Louise Macdonald
- > Stuart McMillan MSP
- > Sarah Munro

Scotland's Futures Forum would like to thank all those who have contributed to this programme. This includes Futures Forum directors who have served during the Scotland 2030 Programme:

- > Sir Ian Diamond
- > Anne Douglas
- > Richard Holloway
- > Alex Johnstone MSP
- > Michael Russell MSP
- > Maree Todd MSP
- > Adam Tomkins MSP

MSP colleagues for chairing events during the programme:

Clare Adamson MSP, Linda Fabiani MSP, Neil Findlay MSP, Maurice Golden MSP, Ross Greer MSP, Gordon Lindhurst MSP, Lewis Macdonald MSP, Gillian Martin MSP, Ivan McKee MSP, Christina McKelvie MSP, Gail Ross MSP, Alex Rowley MSP and Andy Wightman MSP.

Our organisational partners:

The Scottish Parliament, Goodison Group in Scotland, Royal Society of Edinburgh, RSE Young Academy of Scotland, Scottish Universities Insight Institute, Scottish Youth Parliament, SEFARI, Scottish Graduate School for Arts and Humanities, OPTIMA, University of Aberdeen, Glasgow City Council, Glasgow Chamber of Commerce, Jacobs Engineering, Reform Scotland, Shoreline of Infinity, Cymera, Edinburgh Hub of the Global Shapers Community, BBC Scotland Learning, Scottish Alliance for Geoscience, Environment and Society, and the Edinburgh Centre for Carbon Innovation.

Futures Forum staff and interns:

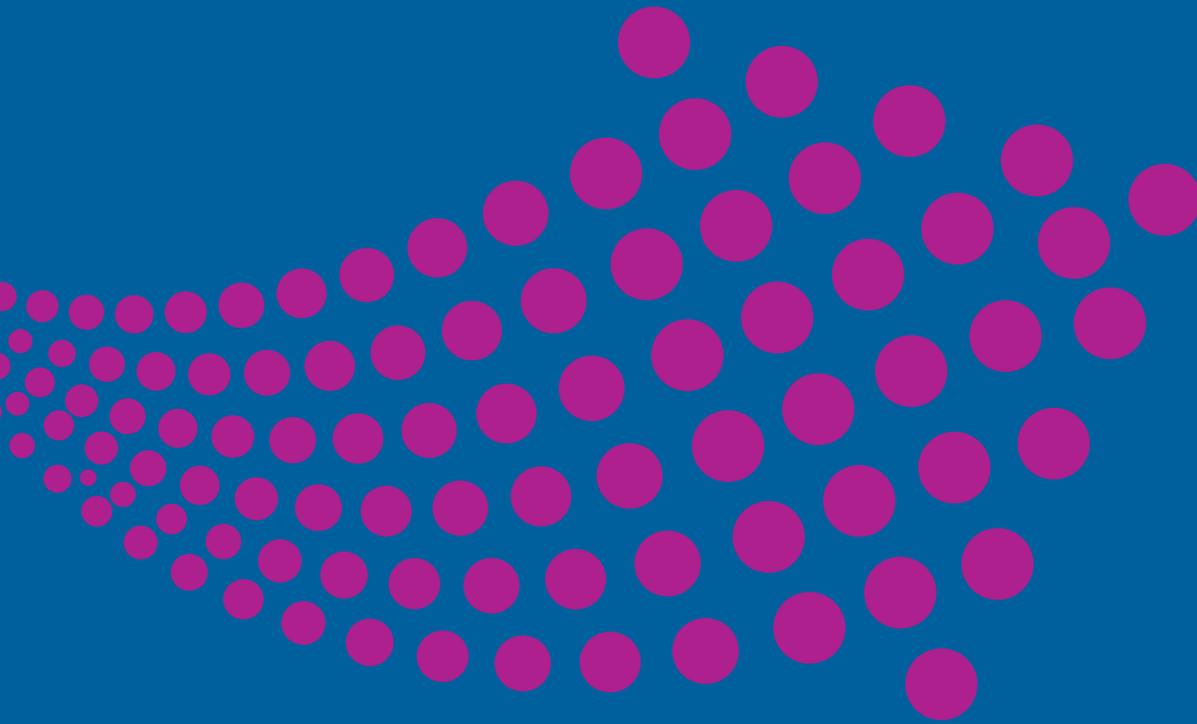
Nafees Iqbal, Donald Jarvie, Ken Hughes, Michelle Hegarty, Susan Duffy, Fiona MacLellan, Eleanore Widger, Nicola Martin, Dr Stephanie Smith, Nicole Barth and Marli de Jongh.

Thanks in particular to Úna Bartley and Clare Maddox for report writing, Tina Livingston from the Goodison Group in Scotland, and Mark Hazelwood and colleagues at the Scottish Partnership for Palliative Care.

This report was written by the Futures Forum's head of business, Rob Littlejohn. Infographics on pages 11 & 12 were produced by Andrew Aiton of the Scottish Parliament Information Centre (SPICe).

The report was designed by Emma Quinn Design (www.emmaquinndesign.co.uk)

A clear-eyed
and positive
view of the
future can
help us build
the positive
future we all
want.



Website www.scotlandfutureforum.org

Twitter [@ScotFutures](https://twitter.com/ScotFutures)

Email ScotlandsFuturesForum@parliament.scot