







## **Making tracks**

Our vision for cycling in Inverness

Inverness is the fastest growing city in Scotland with a 15% growth in population since 2001. To facilitate this growth the City of Inverness Area Committee recognises the importance that cycling plays in delivering an effective transport

system, fundamental to the future economic growth and liveability of our City.

The report evidences that cycling participation is already at a reasonably high level in Inverness with 25% of residents cycling at least once per week. However, it is recognised that more can be achieved as 22% of residents currently do not cycle but would like to and it is these individuals and families that we need to be encouraging and enabling to shift their travel habits to become more active.

Alongside these successes however we must recognise the areas in which we still have some work to do. Only 39% of residents think that cycling safety in Inverness is good and when it comes to the cycling safety of children, our future, that figure falls to 23%. The report also shows that there is a strong demand for improved facilities for cycling amongst Inverness residents with 81% indicating that more cycle tracks separated from traffic would help them cycle more. Higher levels of cycling will improve, not only the health of those who cycle, but also of those around them, by taking cars off the roads and improving air quality through our city centre. In May 2019 the Highland Council declared a climate and ecological emergency and we want to become an exemplar of how a region can address these important issues. Decarbonising our roads will be a vital and achievable step towards a net zero emission city. Creating a safer cycling environment for all, especially our children, must be a priority.

Across the City, transformational changes have already taken place, and more are in the pipeline, to create an inclusive and attractive network of active travel routes so travelling by bike becomes easier regardless of gender, age or ability. The recent investment in infrastructure evident through the construction of the West Link and its adjacent 15km network of active travel paths, has already provided many more opportunities for residents and visitors, the young and the old, the confident and not so confident cyclists to travel actively and sustainably for recreation and functional purposes.

We welcome the publication of this Bike Life report and look forward to working together to achieve Inverness' goal of becoming Scotland's cycling city.

Councillor Helen Carmichael, Provost and Leader of Inverness

Councillor Jimmy Gray, Chair of South Planning Committee

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### **Introducing Bike Life**

Bike Life is the biggest assessment of cycling in urban areas in the UK and Ireland. It is delivered by Sustrans in collaboration with 17 cities and urban areas. Each city\* reports on progress towards making cycling an attractive and everyday means of travel.

Bike Life reports every two years. In 2015 and 2017 seven cities published reports. Glasgow, Perth and Stirling followed and published their first reports in 2018.

Fourteen areas are participating in Bike Life in 2019. This includes our first London borough, Tower Hamlets, and our first city outside of the UK, Dublin Metropolitan Area.

This is the first report from Inverness. The information in this report comes from local cycling data, modelling and an independent survey of 1,452 residents aged 16 or above in Inverness.\*\* The survey was conducted by social research organisation NatCen and is representative of Inverness residents, not just those who cycle.

More details on all Bike Life reports can be found at **www.sustrans.org.uk/bikelife** 

Our thanks to the people of Inverness who took part in the survey and shared their stories with us.



## **Report summary**

Inverness

### **Population\***

63,192



Every day, cycling in Inverness takes up to

3,200 cars off the road

Based on cycling by residents that live in a household with a car. Does not include leisure cycling trips. Every year, cycling:

prevents 55 serious long-term health conditions

saves **1,500 tonnes** of greenhouse gas emissions

creates £10.3 million in economic benefit for individuals and the city There is significant appetite in Inverness for cycling.

Inverness

Survey area

25%

of residents cycle at least once a week

22%

don't cycle but would like to

Safety concerns stop cycling being a genuine travel choice for many residents

Many residents are less likely to cycle regularly, for example women and disabled people.

However, all groups want cycling safety to be improved.

Proportion of residents who cycle at least once a week



Proportion of residents who think cycle safety needs improving

69% of women 63% of men

**62%** of disabled people

67% of non-disabled people

### To help residents cycle more we need better cycling infrastructure

### 81%

think that more cycle tracks along roads physically separated from traffic and pedestrians would be useful to help them cycle more

### **70%**

support building more of these tracks, even when this would mean less room for other road traffic



\*NOMIS mid-year 2017 population estimate. This is the most recent available for all Bike Life areas.

People from socio-economic groups D and E are most likely to suffer the impacts of higher traffic levels,\*\* yet are least likely to own a car

Proportion of residents from socio-economic groups AB or DE who have a car or van in their household

**93%** of people from groups AB

**55%** of people from groups DE

the risk of social exclusion,

debt and transport poverty.<sup>†</sup>

Not having a car can increase

### 64%

of residents from socio-economic groups D and E never cycle, but

**27%** would like to start

This is equal to **3,800 adults** 

Cycling as a mode of transport is ideally suited to urban life.

Cities that are designed for cycling can help many residents access everyday services and reduce social and economic isolation.

Socio-economic group is a classification based on occupation maintained by the Market Research Society. Groups A and B are professional and managerial. Groups D and E are semi-skilled and unskilled manual occupations and people not in employment.

## Inverness residents believe improving their streets for cycling and walking would make their area a better place to live, work or visit

62%	71%	54%	
think more cycling would make their area a better place to live and work	think space should be increased for people socialising, cycling and walking on their	think streets outside local schools should be closed to cars during drop off and pick up times	
62%	local high street		
think fewer motor		62%	
vehicles on our streets would be useful to help them cycle more		think speed limits should be reduced on local roads	

Residents would like to see more government spending on public transport, cycling and walking

72%	Public transp	ort
59%	Cycling	
56%	Walking	
43%	Driving	

### Emily Williams, Engineer

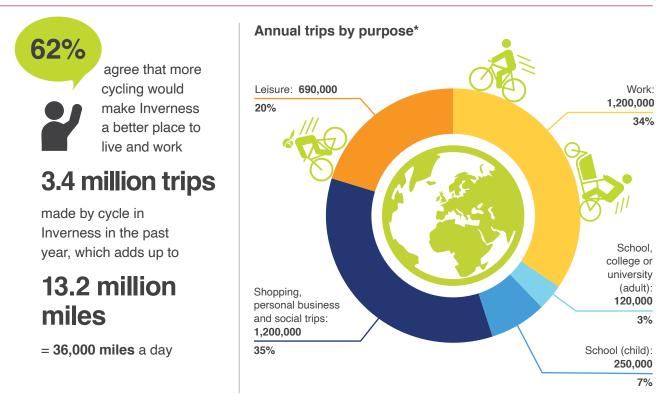
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If we can encourage the next generation to think that travelling by bike is normal and easy, then we stand a chance at a wholesale shift in travel mode.

## **Realising benefits**

Why everyone gains when more people cycle

Inverness residents cycle 1.5 times around the world every day



### Cycling keeps Inverness moving

Studies show cycling frees up road space in comparison to driving.\*\* This helps to keep Inverness moving for all road users.

### 3,200 return cycle trips

are made daily in Inverness by people that could have used a car If these cars were all in a traffic jam it would tail back

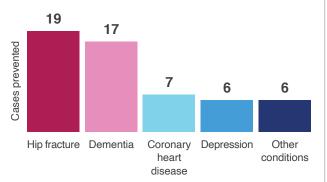
### 9 miles

equivalent to the distance from the city centre to Inverness Airport

\*Leisure trips include adults and children. Education trips are shown separately for adults and children. All other trips are just adults.

\*\*Litman, 2017. Evaluating Transportation Land Use Impacts. Based upon Eric Bruun and Vuchic, 1995. The Time-Area Concept

## Cycling in Inverness prevents 55 serious long-term health conditions each year



'Other conditions' includes type 2 diabetes, stroke, breast cancer, colorectal cancer

Saving the NHS in Inverness

## £340,000 per year

equivalent to the cost of 11,000 GP appointments

Based on Sport England MOVES tool which shows the return on investment for health of sport and physical activity.

In Inverness the physical activity benefits of cycling

# prevent 5 early deaths annually

which is valued at

£17.2 million<sup>†</sup>

More people cycling improves air quality:

## 3,300 kg of NO<sub>x</sub>

### 440 kg of particulates

 $(PM_{10} \text{ and } PM_{2.5})$  saved annually.

In the Highland Council area **57 early adult deaths** occur each year where longterm exposure to air pollution  $(PM_{2.5})$  is deemed to be a contributory factor.

Based upon Public Health England, 2014. Estimating Local Mortality Burdens associated with Particulate Air Pollution. Adults = 25 years+. (Covers all of the UK).

### Cycling helps reduce the impact of our climate crisis

## 1,500 tonnes

of greenhouse gas emissions (carbon dioxide, methane and nitrous oxide) saved annually, equivalent to the carbon footprint of

8,500 people taking flights from Inverness to London



Transport now accounts for 37% of Scotland's greenhouse gas emissions, of which the main sources are petrol and diesel cars.

Overall Scotland's emissions between 1990 and 2017 fell by 47%; however transport emissions increased by 0.4%.

Scottish Greenhouse Gas Emissions 2017 report. Scottish Government.

### Cycling benefits residents and the local economy in Inverness

95p net benefit for individuals and society from each mile cycled instead of driven

These figures are based upon monetising the costs and benefits of driving and cycling. This includes travel time, vehicle operating costs, medical costs and work absenteeism, congestion, infrastructure, local air quality, noise, greenhouse gases and taxation. In total, this adds up to:

### £5 million

annually from people with a car choosing to cycle for transport, or

### £10.3 million

annually from all trips cycled



<sup>†</sup>Based on WHO/Europe Health Economic Assessment Tool (HEAT), which enables an economic assessment of the health benefits of cycling by estimating the value of reduced mortality resulting from specified amounts of cycling.

## **Cycling participation**

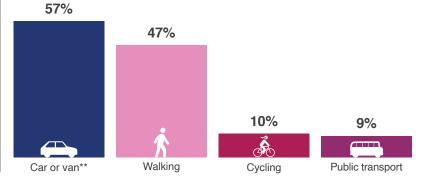
Who is cycling and how often?

### Most people living in Inverness do not currently cycle

Whilst many people cycle in Inverness, participation is much lower than for other modes of travel.

When cities are designed to make cycling more attractive than other forms of transport, participation can be high. For example **29%** of residents cycle five or more days a week in Greater Cambridge.\*

## Residents who travel by the following modes five or more days a week in Inverness



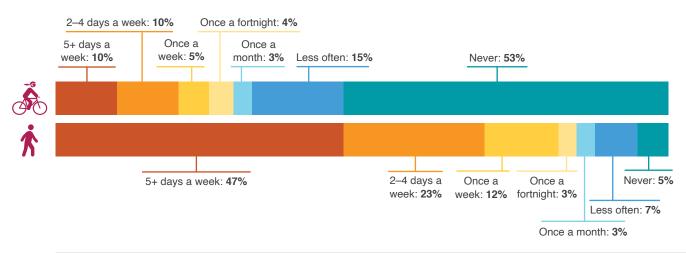
82% of residents walk at least once a week

25% of residents cycle at least once a week While it's clear that improvements need to be made to the walking environment, there is at least a network of protected space – pavements.

In comparison, it is only possible to cycle to most everyday destinations if you are happy to share road space with motor vehicles.



### How often are residents cycling and walking?



### How inclusive is cycling?

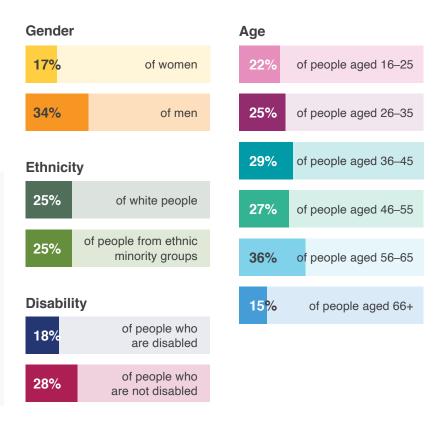
In Inverness cycling participation of different demographic groups is not equal.

Barriers to cycling can be more pronounced for different demographic groups, however cities with high cycling rates show this is not always the case.

55% of all cycling trips in the Netherlands are made by women. Furthermore, people over 65 make 24% of their trips by cycle, higher than the percentage reported for any other age group over the age of 26.

Pucher and Buehler, 2008. Making Cycling Irresistible Transport Reviews, Vol. 28.

## Proportion of Inverness residents in different demographic groups who cycle at least once week



#### Graeme Mauchlen, resident



I grew up in South Africa. Cycling was part of life growing up there. It was a necessity for anybody, for all the kids. There you are outside all the time because of the weather.

I have fibrositis in my lower back, which makes it very difficult to be on my feet a lot or walk a lot. I had a car accident when I was 19. It wasn't that bad when I was younger and stronger, but now that I'm getting older it is.

I spoke to my GP and he actually put me in touch with the cycling organisation, Wheelness<sup>†</sup>.

#### After 20 years not having a bicycle, I got a bicycle again. It's like getting your freedom back.

Normally if I walk for half an hour, that's me done. I'm sore for two or three days afterwards. The bike takes that pain away. More often, I can get further distances because of the bike. It's not putting pressure on my back, I'm using my legs more on the bicycle. I also suffer with anxiety and I find that the bicycle helps with that as well. If you are feeling anxious or down, get on the bicycle and go out. It definitely helps.



## Social inequality and mobility

Cycling's potential to help people

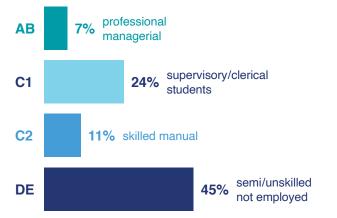
### Mobility is about accessing basic, everyday needs that help people live well

Mobility enables people to access employment, education, fresh food, green space and healthcare. Mobility also enables people to see family, participate in their community and to have a voice in society.

And yet, mobility for many people in the UK is neither equal nor inclusive.

### People who do not have a car can find it challenging to reach everyday services in areas where travel alternatives are lacking

Proportion of residents from each socio-economic group\* who do not have a car or van in their household



**28%** of the population of Inverness are from the socio-economic groups D and E. That's around **17,000** people in total.

Groups D and E are semi-skilled and unskilled manual occupations, homemakers and people not in employment.

Many disadvantaged neighbourhoods have fewer local amenities and poorer public transport provision.\*\* This combination means that everyday services may be harder to reach. Cycling could help accessibility.

### Many residents from socio-economic groups D and E would like to start cycling

### 27%

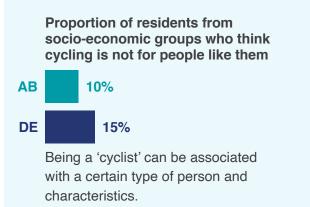
of residents from groups D and E in Inverness would like to start cycling

### 20%

of residents from groups D and E in Inverness currently cycle at least once a week In comparison, **28%** of residents from groups A and B cycle at least once a week.

\*Socio-economic group is a classification based on occupation maintained by the Market Research Society. \*\*Glasgow Centre for Population Health, 2013. The built environment and health: an evidence review. Reasons why Inverness residents from socio-economic groups D and E do not cycle or why they cycle less often

34%	20%	209	%	15%	_
Concerned about safety	Cost c suitab cycle	of a le		ot onfident vcling	Children, passengers or too much to carry



### Cycling has potential to reduce social and economic exclusion

Cycling could help many residents access employment, healthcare and everyday services, but only if we make cycling attractive, safe and easy for everyone.

At a relaxed pace you can cycle over 4 miles in 25 minutes. So, cycling can be ideally suited to urban life, especially as an option for people who do not own a car and live further away from public transport.

## 25-minute cycling distance from Station Square

Cycling would enable **60,000** people to travel from their home to Station Square in less than 25 minutes, including **7,700** people from areas that are among the 20% most deprived in Scotland.



### Andrew Barrett, GP

## "

In 2018, I had some arrhythmias in my heart, and was found to have a genetic condition. I had to have a defibrillator put in because of the risk of sudden death – and told to stop all exercise. To say it's been difficult would be an understatement. It's changed every aspect of my life and there were some pretty dark months.

Having an e-bike has allowed me to get out with my mates, I can commute and I can go out with my wife, and eventually my young daughter. I am now in such a better place because of the bike.

As a doctor I promote the health benefits of cycling to patients. I use it most in diabetes and mental health. I often say to people, how about instead of taking the car you walk one mile to the shops and back, or you cycle to work on a Tuesday, Wednesday, Thursday?



## **Barriers**

### What is stopping Inverness residents cycling more?

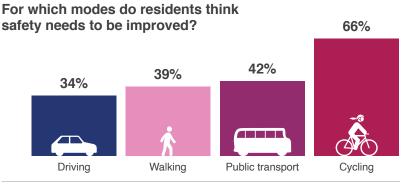
## **50%**

think Inverness is a good place to cycle. But many barriers to cycling exist.

## Reasons why some residents do not cycle or why they cycle less often

37%	29%	
Concerned about safety	Poor weather	

### Safety is the single largest barrier to more people cycling



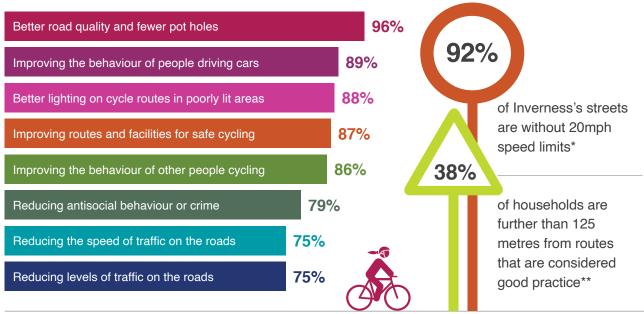
Which issues do residents think are important for improving cycle safety in Inverness?

### 39%

of residents think cycling safety in Inverness is good

### 23%

think children's cycling safety in Inverness is good



\*Excluding motorways.

\*\*These are defined as routes that are traffic-free and away from roads, cycle tracks along roads physically protected from traffic and pedestrians, and routes along quieter streets where there is less traffic.

### Secure cycle storage is important at home and when out and about

### Reported cycle thefts



There were **77** reported cycle thefts in Inverness in 2018/19.

For every **427** people who own an adult cycle in Inverness, there was 1 reported cycle theft in the past year. There is a public cycle parking space for every **59** people who cycle in Inverness.

### 18%

of residents think security of public cycle parking is good.

Security can also be a risk at home, especially in flats where storage inside the property can be harder.

#### Please note survey respondents could pick multiple options

19%	17%	16%	15%	15%	13%	11%
Not confider cycling	Children, passengers or too much to carry	Lack of storage or facilities at home or work	Too hilly here	Living too far away from my destination	Cost of a suitable cycle	Not for people like me

#### **Clare Dyker, Retired Nurse**



I used to cycle lots on my road bike, regularly doing 30-40 mile routes through Glen Fruan and round the Rosneath Peninsula near Helensburgh, where I'm from.

I moved to Inverness to work as a nurse and start a family so that put cycling on hold. I then became unwell and was diagnosed with MS. It eventually started affecting my balance and my ability to walk.

In 2018, my physiotherapist suggested an e-bike. I was shown a WheelNess<sup>†</sup> flyer by my physio for the all-ability cycling open day and I decided I would go. I gave an e-trike a shot and loved it! I started to look into how I could get one for myself. Then WheelNess approached me with the prospect of being given a long-term free loan.

With my new e-trike I joined the WheelNess Monday morning Caledonian Canal ride group, which has been fantastic.

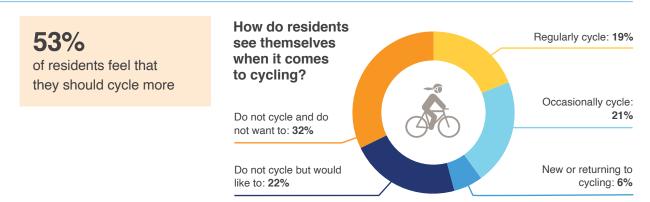
I'm smiling the whole time. The changes have been enormous.

I can get out in the fresh air, see and hear the birds and the changes in the seasons, meet new people, chat and socialise. I love it! The e-trike was challenging at first but I've noticed big improvements in my strength and stamina. Walking is still a struggle for me, but it is much easier to cycle.

## **Solutions**

### What would help Inverness residents to cycle more?

### Many Inverness residents want to cycle



### Residents want improved cycling infrastructure

#### What proportion of residents would find infrastructure improvements useful to cycle more?

		-	-
83%	81%	75%	63%
More traffic-free cycle routes away from roads, eg through parks or along waterways	More cycle tracks along roads that are physically protected from traffic and pedestrians	More signposted local cycle routes along quieter streets	Better links with public transport
Inverness has <b>20 miles</b> of traffic-free cycle routes away from the road	<b>O miles</b> of tracks physically protected from traffic and pedestrians	<b>52 miles</b> of signposted routes along quieter streets	There is one cycle parking space at Inverness railway station for every
of household	53 passengers		

### 70%

of residents support building more protected on-road cycle tracks, even when this would mean less room for other road traffic A and B roads have higher levels of traffic so these are where physical separation is most useful for cycling. In total, **35 miles** of A and B roads exist in Inverness.

#### Residents want more support to cycle

### What proportion of residents would find more support useful to cycle more?

51%	43%	29%	17%
Cycling training courses and social rides	Access to an electric cycle	Access to a cargo cycle	Access to an adapted cycle (eg tricycle or recumbent cycle)

### 64%

of residents have access to an adult pedal cycle



#### **Emily Williams, Engineer**



Inverness is relatively flat, and being a one car family it made sense to cycle the short journeys. This continued when we had our child, first taking him everywhere in a trailer, and then on a tag-along before he was able to graduate to cycling on his own.

The experience of cycling with a child has changed my perspective on the accessibility of travelling by bike, and I have become really aware of how intimidating the roads here can be for children and people (particularly women) with less experience of cycling.

I am working on encouraging more cycling in the school – a very small proportion of the children cycle to school. However, the infrastructure in town is really hard for children to navigate safely, therefore I would hesitate to let them cycle to school on their own.

I would like to see improvement in the provision of advanced Bikeability training to encourage more of the children to have confidence cycling on the roads, and a focus on providing safe cycle routes to schools.

If we can encourage the next generation to think that travelling by bike is normal and easy, then we stand a chance at a wholesale shift in travel mode.



A reported cycle injury occurs once every **1.7 million miles** cycled around Inverness. Whilst injuries are relatively rare, sharing the road with motor vehicles is unattractive for most people.

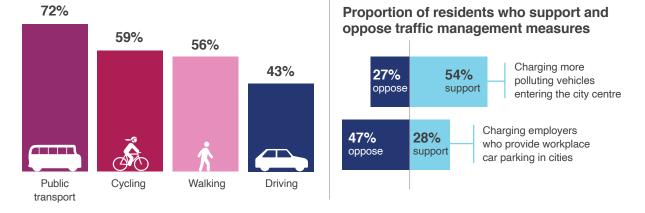
## What proportion of residents would find traffic management measures useful to cycle more?



### Residents want more investment in public transport, cycling and walking

Proportion of residents who would like to see more government spending on different types of transport

Public support exists for introducing policy measures that could be used to help fund cycling, walking and public transport.



Investing in provision for cycling is good value for money, and gives greater returns than many alternatives. For example, the £150 million English Cycling Cities Ambition Grant programme secures approximately £5.50 in benefits for every £1 spent. This is typical for cycling schemes in the UK, and compares favourably with most other transport schemes.

## Improving cycling

How has Inverness been developing cycling?

Inverness has some of the highest levels of cycling in Scotland – but with better infrastructure and sensitive development, the area has the potential to set new standards for active travel. A connected city will promote active travel, improve community health and reduce short car journeys.

#### **Active Travel Audit**

In 2011 an Active Travel Audit identified nine potential walking and cycling routes that could link residential areas to common destinations forming an Active Travel network for the City of Inverness. A full description of the routes with potential improvements were included along with initiatives to encourage active travel in the area.

#### **Advocacy Document**

A new vision for cycling in the Highland capital was recently launched. 'Cycle INverness: Creating a City Fit for the Future' shows what development is happening now and what aspirations are being worked on. Some are small scale to be implemented in the not-too-distant future – and others are visionary.

The Highland Council's vision is of a city that puts active travel at the heart of everything it does.

#### **Active Travel Map**

An Active Travel Map for Inverness was recently updated, providing information on the opportunities for cycling and walking around the city. Produced by HITRANS, the regional transport partnership for the Highlands and Islands, the map highlights recommended routes, cycle parking, cycle shops and cycle hire.

#### **I-Bike Inverness Officer**

I-Bike Inverness is an innovative school project that empowers children, parents and teachers to travel actively, safely and confidently to school, encouraging exercise and reducing traffic congestion. The project has a specific focus on addressing the drop in cycling rates from primary to secondary school, and the gender gap in rates of cycling between boys and girls.

### West Link

The Highland Council recently completed a new bridge across the River Ness that enables Active Travel journeys to be made between the south side of Inverness and the sports area at the Bught Park. Altogether 18.5km of 3m wide shared use paths were created along the West Link, providing connections to the Caledonian Canal towpath and existing recreational paths.

### **Smithton Bridge**

A new bridge linking Smithton and Culloden was recently opened by Culloden Academy pupils. Replacing an older crossing, the new bridge allows walkers, cyclists, people with prams and those in wheelchairs or mobility scooters to pass each other more easily. Drainage has been improved so that the path remains suitable in all weathers. Pupils from Smithton can now enjoy a largely traffic-free walk or cycle as part of their school journey.

### The Missing Link

For many years, workers and visitors to two major business and retail parks, only 100m apart, have had to walk or cycle 10 times that distance or negotiate a deep ditch and marsh. Many choose to drive 2km instead. This simple bridge and path project finally delivered a missing link between hotels, shops and businesses.

### **Cavell Gardens**

The works to improve active travel facilities in this area included installing a contra-flow cycle lane on Cavell Gardens, a raised table to give pedestrians / cyclists priority and widening of the shared use paths. Road markings and traffic signs were included to improve safety and route finding for cyclists and pedestrians.

### **Active Travel Route 6**

The route from Slackbuie to Inverness city centre was jointly funded by The Highland Council and Sustrans. The works included footpath widening in Culduthel Woods, introduction of advisory cycle lanes along Culduthel Road, and improved crossing facilities. This project provides access to the city centre and other destinations, and is expected to reduce traffic speeds.

### Monitoring of Cycling Infrastructure

To help monitor cycling in Inverness, cycle counters have been installed on existing and new routes. Data from the counters are uploaded quarterly and sent to officers in The Highland Council who monitor the number of cyclists using the network. The Millburn Road Cycle Route which links the city centre, Inverness Campus, Beechwood Business Park and Raigmore has exceeded 100,000 journeys, a 30% increase over the last four years.

## **Bike to the future**

Our ambition and plans to make it happen

Our vision for Inverness is of a vibrant and economically successful city that attracts investment and attracts and retains people of all ages. It is a city that understands the importance of long and happy lives lived in good health and the importance of tourism and economic investment, supported by a strong city centre and employment base.

An active city fit for the future is at the heart of our vision. Cycling and walking will be seen as enjoyable and practical every day transport for more people, promoting health and enlivening our streets and public spaces. As a result, where there are roads we will begin to create streets, and these streets will become more attractive as social spaces.

We want active travel to be a natural and, above all, safe and convenient choice for as many people as possible. This will reduce congestion by freeing up road space for essential journeys by car for which there is no realistic alternative. It will also help public transport services to become a more reliable and attractive alternative to single occupancy car journeys.

The Community Links PLUS programme to be delivered in Inverness will establish an infrastructure design and promotion benchmark for the future, inspired by the best of what is achieved in Denmark and The Netherlands. These measures will be supported by a smarter travel information, engagement and promotional programme.

The programme fits into our future plans for the city's regeneration and expansion. Our Local Development Plan sets out how we will deliver 16,000 new homes in the period 2011–2031 and 1,125 direct jobs as part of the City Region Deal. The core east-west travel route will connect Culloden and Smithton with the University and residential areas in the west of the city. It will, in the process, help to reduce congestion and air pollution, improve the look of the public realm whilst promoting inclusion, health and wellbeing.

As a result of this programme and future investments, Inverness will strengthen its position as a city that people are justifiably proud of, a city that stimulates inward investment and retains and builds a physically fit and economically-productive population.



#### Notes on terminology and methodology:

The attitudinal survey was conducted from April to July 2019 by independent social research organisation NatCen.

The survey is representative of all Inverness residents, not just those who cycle.

Rounding has been used throughout the report.

More information and a detailed methodology are available at <u>www.sustrans.org.uk/bikelife</u>

Sustrans is the charity making it easier for people to walk and cycle.

We connect people and places, create liveable neighbourhoods, transform the school run and deliver a happier, healthier commute. Join us on our journey. <u>www.sustrans.org.uk</u>

Sustrans is a registered charity in the UK No. 326550 (England and Wales) SC039263 (Scotland)

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FSCº C120778

Printed with 100% renewable energy using an alcohol-free process and vegetable-based inks

Bike Life Inverness has been funded by Transport Scotland. The project is co-ordinated by Sustrans.





