

**REPORT OF THE LEADER OF THE COUNCIL****FUTURE TECHNOLOGY – TRANSPORT AND CONNECTIVITY****Purpose of the Report**

1. This report sets out Nottinghamshire County Councils plans to participate in the connected and autonomous vehicle revolution. Policy Committee is asked to:
  - a) Mandate further work by the Growth and Economic Development Team to develop an action plan, which sets a course for future technology developments in transportation.
  - b) Agree to a series of future round table sessions with industry and leaders in the connected and autonomous vehicles field.
  - c) Support Officers exploring the European Regional Development Fund as a possible match-funding source for two concept projects.

**Information**

2. Commitment 5 and 11 of the Council Plan 2017-2020 focus on ensuring Nottinghamshire is a great place to live, work, visit and relax, and is a well-connected County. Our intention is to become a low carbon, sustainable destination and support technical innovation that could affect change on a larger scale, allowing future generations to remain in the County.
3. On 5 November 2018, Openreach announced a world leading broadband boost for Nottinghamshire. The County will be the first in the East Midlands to benefit from Openreach's 'Fibre First' investment, where fibre optic cables take ultrafast broadband right to people's front doors. As well as adding even more reliability and resilience to the network, meaning the connection is less likely to drop out, it brings speeds of up to 1 Gigabits per second (about 24 times faster than the current UK average of 46 megabits per second). This provides even greater capacity for multiple devices and things like on-demand video, Virtual Reality gaming and smart homes. The fibre connection will future-proof homes and businesses for decades to come and ensure that the Nottinghamshire remains competitive on the national and world stage.
4. Putting Nottinghamshire at the forefront of the global technological revolution requires a major upgrade, in equal measure, to both the County's digital network and other elements of infrastructure. Clean growth and future of mobility are two of Government's four 'Grand Challenges' in its Industrial Strategy. The Industrial Strategy works alongside the Clean Growth Strategy, released in October 2017, to push the UK towards its future carbon budgets. By working with the Midlands Engine, Nottinghamshire County Council can pioneer new ways of embracing technology to move towards a sustainable and low carbon economy, whilst at the same time support Government's core objectives for the Industrial Strategy.

5. It is widely reported that a future in which autonomous motor vehicles are capable of picking up passengers, navigating suburban, urban, and rural streets, and automatically reacting to Highway obstacles is not that far away. Already, various models of connected and autonomous vehicles (CAVs) are being tested in research facilities and, increasingly, on public Highways. While CAVs were once relegated to the realm of science fiction, even if many drivers do not yet realise it, aspects of autonomous vehicle technology is already incorporated into a wide range of vehicles.
6. Nottinghamshire County Council's Place Departmental Strategy has an ambition of ensuring the County fully participates in the connected and autonomous vehicle (CAV) revolution. It has set in motion the development of highways for the future. Future infrastructure investments should aim to foster CAV innovation and "future proof" hard infrastructure for the technologies needed by autonomous vehicles. Current drivers and future autonomous vehicles will both benefit from improved Highway surfaces, road markings, and other infrastructure repairs. The County Councils role is to create an environment that encourages private sector innovations that facilitate the testing and integration of autonomous vehicles on Highways.
7. In July 2018, Policy Committee received a report about the development of a Nottinghamshire, Nottingham and Derby area wide network of electric vehicle charging infrastructure funded through the Go Ultra-Low Nottingham programme. Building on the announcement of the County receiving a slice of £2 million government funding to introduce a public electric vehicle charging network across Nottinghamshire by 2020, the Place Department's goal, was to begin dialogue between: leading motor manufacturers, suppliers of autonomous vehicles, regulators, innovators, business leaders and academics, to debate East Midlands role in developing and deploying this exciting new technology. In parallel to this initiative The County Council has also invested in its first electric buses (and charging infrastructure) for the EConnect 510 service which was successfully launched this summer. A further bid has been submitted to the Government for more vehicles and supporting infrastructure.
8. On 17 September 2018, Nottinghamshire County Council hosted the inaugural CAV roundtable discussion. It was a very worthwhile meeting, which resulted in a 100% turnout from across the East Midlands.
9. Work is now underway to develop an Action Plan with interested collaborators, to ensure work towards an integrated proposition gains traction. This involves the following three activities:
  - a) Forming a small working group (to include public and private sectors, industry and academia) to commence work on establishing the areas where more focus and collaboration is necessary.
  - b) Presenting the findings to a future gathering of the East Midlands participants from the inaugural group.
  - c) Determining, through the participating East Midlands Upper Tier Authorities, a clear vision with the offer of appropriate leadership and support from the Midlands Engine Partnership.

European Regional Development Fund – Live funding calls

10. ADEPT brings together directors from county, unitary and metropolitan authorities, along with Local Enterprise Partnerships and corporate partners drawn from key service sectors. ADEPT invited their members and partners to submit a short expression of interest for live lab proposals. The Department for Transport (DfT), with agreement from Ministers, are grant funding up to six live lab proposals with up to £25 million available in total across the live labs over the period 2010. Officers have received confirmation that our two expression of interest submissions were unsuccessful. However, Officers are currently exploring the appropriateness of applying to the latest round of European Regional Development Funding (ERDF) for the same two concept projects:

- a) **Cycle Sherwood – a legendary route for the 21<sup>st</sup> century.** A project seeking innovative and eco-efficient solutions to tackling today's highways problems in an ancient Forest environment, incorporating the newest, highly localised real-time data gathering, monitoring and environmental sensor technologies to reduce pollution through noise and exhaust emissions, cut congestion, support physical and mental well-being and improve habitat quality. With the new Visitor centre at its heart, a full fibre digital network will enable visitors to grab life by the handlebars, pedalling through fantastic landscapes and uncovering the stories of the real Sherwood Forest.
- b) **Internet of Things Mansfield** – a bold and innovative proposal to create an Internet of Things Mansfield, drawing in a range of partners to test approaches to journey time reliability and traditional highway maintenance activities. It builds on the rollout of electric vehicle charging points, LED lighting, infrastructure improvement programmes and trials of patching techniques in Nottinghamshire to create a network of connected devices. In collaboration with the University of Nottingham, the proposal would share the networking technology to assist in the University's CAV trials proposed at their campus. The data collected would be used to inform future CAV development and seek to deliver CAV trials on the East–West Growth Corridor (North) around Mansfield. In addition, the bid would seek to excite local schools, colleges and businesses by holding a Dragon's Den style competition to utilise the data and design apps to harness the potential of the Internet of Things and support skills and business growth.

11. Policy Committee is requested to support Officers continuing to explore ERDF match funding opportunities, for which a more detailed report will be provided to a future Committee as appropriate.

### **Other Options Considered**

12. With the technology (and the vision behind it) advancing at a rapid pace, the CAV has the potential to reshape transportation for the better. The CAV's safety improvements, which should reduce human error on Highways, are a potential boon to public health and safety. The ability of these vehicles to also improve capacity on our Highways, and more productive utilisation of our travel time, also promises significant productivity growth. Finally, CAVs can increase the mobility of young people, elderly, the disabled, and other communities underserved by traditional personal and public transportation systems. Accordingly, they can redefine transportation accessibility, having a positive impact on economic opportunity and productivity across the County.

13. The way forward is clear, to fully realise the many benefits of CAVs, Nottinghamshire (and therefore the East Midlands) must be creative and supportive. Therefore, the 'do nothing' option was discounted.

### **Reason for Recommendation**

14. The output of the work on an East Midlands CAV initiative means participating collaborators, under the strong leadership of Nottinghamshire County Council, is well placed to bid for Government and ERDF investment. If ERDF was deemed appropriate and future submissions successful, this would see a collaboration with public, private and academia to address smart local highways and autonomous vehicles opportunities and challenges

### **Statutory and Policy Implications**

15. This report has been compiled after consideration of implications in respect of crime and disorder, data protection and information governance finance, human resources, human rights, the NHS Constitution (public health services), the public sector equality duty, safeguarding of children and adults at risk, service users, smarter working, sustainability and the environment and where such implications are material they are described below. Appropriate consultation has been undertaken and advice sought on these issues as required.

### **Financial Implications**

16. There are no financial implications arising from this report.

### **Implications for Service Users**

17. Excellent roads, transport and digital infrastructure are essential to providing businesses with improved access to markets in order to achieve economic growth. The Council is fully committed to maintaining and improving Nottinghamshire's infrastructure to the highest possible standards and we are already making good progress on it. Success means local people having the right skills to benefit employment opportunities generated by major infrastructure developments.

## **RECOMMENDATIONS**

It is recommended that Policy Committee:

- 1) Mandates further work by the Growth and Economic Development Team to develop an action plan which sets a course for future technology developments in transportation.
- 2) Agrees to a series of future roundtable sessions with industry and leaders in the connected and autonomous vehicles field.
- 3) Supports Officers exploring the European Regional Development Fund as a possible match-funding source for two concept projects.

**COUNCILLOR MRS KAY CUTTS MBE**

## **Leader of the County Council**

### **For any enquiries about this report please contact:**

Nicola M<sup>c</sup>Coy-Brown, Growth and Economic Development ext. 72580

## **Constitutional Comments [AK 17/10/2018]**

18. The recommendation falls within the remit of Policy Committee by virtue of the terms of reference.

## **Financial Comments [SES 17/10/2018]**

22. There are no specific financial implications arising directly from this report.

## **Background Papers and Published Documents**

Except for previously published documents, which will be available elsewhere, the documents listed here will be available for inspection in accordance with Section 100D of the Local Government Act 1972.

- *Clean Growth Strategy*, published by HM Government October 2017, available online at: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/700496/clean-growth-strategy-correction-april-2018.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/700496/clean-growth-strategy-correction-april-2018.pdf)
- *Industrial Strategy - Building a Britain fit for the future*, published by HM Government November 2017, available online at: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/664563/industrial-strategy-white-paper-web-ready-version.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/664563/industrial-strategy-white-paper-web-ready-version.pdf)
- *Place Departmental Strategy*, available online at: <http://www.nottinghamshire.gov.uk/media/129410/place-departmental-strategy.pdf>
- *Electric Vehicle Charging Infrastructure* – Report to Policy Committee, published 19 July 2018
- *ERDF Funding Calls*, published 19 October 2018 – available online at: <http://www.d2n2ta.org/european-structural-and-investment-funds/european-regional-development-fund/funding-calls/>

## **Electoral Division(s) and Member(s) Affected**

- All