REPORT TO: **SCRUTINY COMMITTEE ECONOMY and EXECUTIVE**
Date of Meeting: **10 September and 15 September 2015**
Report of: **Chief Executive and Growth Director**
Title: **Exeter City Futures – Transforming Exeter Through Data**

Is this a Key Decision?
No

Is this an Executive or Council Function?
Executive

1 What is the report about?

1.1 To provide an overview of initial plans and direction of travel for Exeter City Futures. This is an ambitious, long-term vision of how to transform Exeter into a sustainable city of the future through the use of pioneering technology and data analytics. In the process, Exeter may become recognised as a model for others and enhance its reputation as a leader in this field. Whilst looking to address the transportation, energy, and health related challenges facing the city, it is intended that this programme will contribute to the broad-based Innovation Exeter economic development programme promoting business growth, increased investment and creating higher paid employment.

1.2 To provide an outline of the Exeter bid for the Innovate UK 'Internet of Things' demonstrator city competition with details on how this links up with the overall Exeter City Futures vision.

1.3 To provide an outline of the communication plan for Exeter City Futures including details of initial engagement with the local population.

2 Recommendations:

2.1 Scrutiny Committee – Economy support and request Executive to endorse:-

1) Exeter City Futures as a vehicle for better understanding and addressing the transportation, energy and health challenges and opportunities facing the city;

2) the Exeter bid for the 'Internet of Things' demonstrator city competition; and

3) the communications framework outlined in this report to begin engagement with the Exeter population about the overarching ambition of Exeter City Futures. This framework includes an initial public engagement programme.

3 Reasons for the recommendation:

3.1 Exeter has been successful as a driver of economic activity in the South West but it can not become complacent about needing to continue to pursue a programme of economic and housing growth in order to maintain and improve the quality of life and opportunities for those who depend on it. There are inevitable challenges and exciting opportunities facing the city and now, more than ever, we have at our disposal innovative technologies that enable us to understand these issues, in micro and macro detail, how they interrelate and the technologies that will enable us to

address them to the advantage of the city. Exeter City Futures aims to provide an ambitious vision and a clear focus for the future, which makes use of pioneering technologies to diagnose and solve the issues facing the city.

3.2 The focus of Exeter City Futures` can be defined briefly in the three following statements:

- Make Exeter smarter
  Focusing on a combination of pioneering technology and intelligent analytics, Exeter will have a better view of where it currently stands and what problems it is facing.
- Make Exeter more sustainable
  Using the insights generated from a smarter Exeter, a number of solutions and initiatives can be introduced that will ensure both the economic and environmental sustainability of the city.
- Make Exeter more successful
  Ultimately, these solutions would make a significant contribution to Exeter being even more successful with a thriving knowledge economy, a protected natural environment and a better quality of life for its residents.

4 **What are resource implications including non-financial resources:**

4.1 This project is a joint endeavour by Andromeda Capital, Exeter City Council, and Devon County Council. Andromeda Capita is an Exeter-based company that invests in businesses and projects that foster social, environmental and economic prosperity. This includes investing in renewable energy, improving educational standards and encouraging a carbon-neutral society.

4.2 Andromeda Capital is co-ordinating a bid for Innovate UK's Internet of Things (IoT) demonstrator city fund. The winning city is given an award of up to £10 million to fund core activities pertaining to the Internet of Things. As part of this bid, private sector partners have been invited to participate. Further details on the IoT demonstrator bid can be found in section 11 of this report. This bid does not require any financial input from the council. Potential resources for Exeter City Futures will be identified and referred to members when the detail of the programme is known.

4.3 In addition to this core group, specialist agencies have been engaged, as potential partners, whose skills and resources are most suited to the nature of this project. It is anticipated that, as the project develops, it will attract multiple additional public and private sector partners. It is our expectation that a project of this scale and ambition will be an attractive proposition to businesses and enterprises outside of Exeter, and that initial investment in the region will reap great economic rewards for the city.

5 **Section 151 Officer comments:**

5.1 There are no financial implications contained in this report. Any future funding requirements will be considered at the relevant time.

6 **What are the legal aspects?**

6.1 It is clear that this report is intended to appraise Members of the work being undertaken with Andromeda. Clearly the detail of the bid, the relationship between the parties, the detail of the public consultation etc are yet to be finalised and no doubt will be the subject of a further report to the Executive. Given that, any legal

issues which may arise are yet to be identified.

7   Monitoring Officer's comments:

7.1   Please see comments on the legal implications set out above.

8   Background:

8.1   Exeter City Futures is an ambitious, large scale and long-term programme for change. This report is designed to give an overview of the planning and initial stages of this process and will give a sense of the planned direction of travel. This background section will provide more information on decisions that have been made and actions that have already been taken.

9   Key areas of focus:

9.1   The first key decision that has been made is the identification of key areas of focus that will sit under the Exeter City Futures vision. The specific projects that will sit under these areas of focus are yet to be finalised and there will be a collaborative process between all stakeholders in the way these projects are created and implemented. Critically, any major project that will have an impact on the residents of Exeter will go through the normal public consultation process before any action is taken.

Key areas of focus and initial example project ideas can be found below:

9.1.1   Network technology & data analytics

To enable Exeter City Futures to become a reality, Exeter will need to become a national leader recognised internationally in network technology and data analytics. This will require data capture tools and meters, innovative partners, new data centres and novel ways of manipulating the datasets that already exist. When used effectively, the data that will become available will allow us to understand and foresee the problems that Exeter faces and the best way to approach solutions. This will build on the wealth of data analytics expertise that already exists in the city.

Example project(s):

- *Relevant partners to introduce more data capture tools in the city of Exeter to provide the valuable data points that Exeter City Futures will need to succeed.*

9.1.2   Preserving natural resources

Preserving natural resources would be one of the main areas of focus for Exeter City Futures with a view to being environmentally sustainable. Energy would be a key part of this, as the use of technology and data analytics can have a transformative impact on the efficient production, storage, transportation and consumption of energy. This area of focus would also cover the efficient use of water and the minimisation of waste, both of which are also well suited to technological innovations. Exeter has the means to do a better job of preserving its natural resources and Exeter City Futures will ensure this becomes a reality.

Example project(s):

- *A combination of smart meters and a new analytics data centre allow for the optimal use of current energy sources with a particular focus on maximising renewable energy utilisation.*

- *Other examples: Water meters, innovative ways of using waste/recycling data, modern ways of building (e.g. Passivhaus), retrofitting existing buildings, increased solar energy resource, new energy storage solutions.*

9.1.3   Transport and mobility

Transport is another key focus area for Exeter City Futures. The use of modern technology and data analytics can dramatically improve the efficiency of the way people and vehicles move around a city. This approach to transport has the potential to reduce congestion, reduce journey times, improve air quality, make people healthier and lower environmental impact.

Example project(s):

- *Using detailed analysis of Exeter traffic data to understand reasons for congestion and the best ways to reduce traffic flow in these key times (e.g. coordinating school and major employer finishing times by a matter of minutes might have a dramatic impact on traffic)*
- *A continued city wide focus on Exeter as a cycling city through an extension of the segregate cycle network, more cycle parking and the provision of "Boris-bike" style electric bikes.*
- *More integrate public transport information with real time departures, smart ticketing and internet based taxi system*
- *Other examples: Increased city charge points for Ultra Low Emission Vehicles (ULEVs)*

9.1.4   Healthcare

Healthcare will be another focus for Exeter City Futures. Technology and data analysis cannot save lives. It can, however, help those who treat our illnesses make faster and more effective assessments, it can create novel ways to solve medical issues and it can help healthy individuals and those at risk of chronic conditions to make smarter choices about their health and care with consequent impact on costs, future quality of life and potential for business creation.

Example project(s): (These may change as there are more pertinent ones under discussion)

- *Provide free activity trackers to the population of Exeter on the understanding that the data will be used by Exeter City Futures to come up with solutions to make Exeter lifestyles more active.*
- *Introduce one of the available video conferencing doctor services to reduce the load for Exeter GP surgeries and to allow those who struggle to get to these surgeries to get have they assessments they need.*

9.1.5   Enterprise and economy

Exeter City Futures will inherently have a beneficial impact on the city's economy. By becoming a leader in this data-driven, technological approach to city transformation, Exeter will attract investment from public and private organisations who want to be a part of the transformation and try out new products and services. In turn, this will bring new organisations to the area creating significant employment opportunities

Example project(s):

- *Incentivise both innovative start-ups and successful businesses working in this space to move to Exeter through reduced business rates and subsidised office space through proposed Innovation Zone under the Innovation Exeter initiative (this would require the support from the Local*

Enterprise Partnership)
- *Work with the business development and support hub based at Exeter Science Park supported by the Innovation Exeter initiative to create a collaborative environment for these companies.*

9.2   When considered together with a clear focus on the Exeter City Futures vision, these interlocking areas of focus will enable Exeter to transform into a sustainable, efficient and effective city and enable the realisation of tangible benefits for residents, workers, businesses and the Exeter region as a whole.

9.3   An initial set of desired outcomes from the project are set out below.

ENVIRONMENT
- Reduction of carbon emissions
- Increase in air quality around Exeter city centre
- Increase in non-fossil fuel energy source use (solar, wind, hydro etc)
- Decrease in total energy use across Exeter businesses and domestic sites
- Decrease in total levels of waste sent to landfill
- Increase in recycling rates in Exeter

ECONOMY
- Increase in economic output of Exeter
- Increased private and public investment in Exeter
- New employment opportunities created/reduction of unemployment rate/quality of employment opportunities generated
- New businesses setting up in Exeter

TRANSPORT
- Less congestion in the city centre
- Improved public transport infrastructure, leading to increased public transport use
- Increased use of public bikes/cycle lanes/cycle bridges
- Decreased combustion-engine private car use
- Increase in electric car uptake

MEDIA
- National and international media coverage

ATTITUDES
- Shift in public perceptions in Exeter of the initiative among our key audiences
- Shift in public perceptions in Exeter of the city among our key audiences
- Shift in public perceptions outside of Exeter among key stakeholder audiences of the initiative and of Exeter

10   Research groups with the Exeter population

10.1   To better understand the appetite of the Exeter population for this project and to shape the direction of the strategy, a number of focus groups have already been conducted to speak to members of the local population about the Exeter City Futures concept. This work has been led by Andromeda.

10.2   The key learnings from this research are as follows:

- Residents feel broadly positive about the project, and most like the idea of being a showcase city, but they need the project to have a demonstrable positive impact on how they live their lives not only in the future, but also in the here and now.
- They see how it will positively impact the future of Exeter, but also recognise the potential disruption to their everyday lives that a project of this nature could cause
- They feel passionately that a project of this nature should respond to their needs and help produce the change they want to see in Exeter.
- They emphasise how much they want to be included to collaborate and consult, and stress the importance of education and promotion if the project is going to succeed.
- They outlined a number of Exeter City Futures suitable problems such as the transport system and problems with traffic.

As this project is likely to have a significant impact on the lives of those living and working in Exeter, it is vital that they feel both supportive and keen to actively participate in making it a success. The learning from the research has been built into the recommended approach to communications, further detailed in item 9 of this report.

11   Internet of Things demonstrator city bid

11.1   The first Exeter City Futures project is a bid for the Department for Culture, Media and Sport's 'Internet of Things' demonstrator city competition.

11.2   The Department for Culture, Media and Sport (DCMS) has announced it is to invest up to £10 million in a single collaborative Research and Development project to demonstrate the capability of the Internet of Things (IoT) in a city region. This competition (delivered by Innovate UK on behalf of DCMS) is part of a wider £40 million government investment in IoT announced in March 2015.

11.3   The aim of this demonstrator is to show how the large-scale deployment of IoT – where everyday objects are connected to a network in order to share their data – can benefit citizens by offering environmental improvements, economic opportunities, and more efficient and effective delivery of services such as transport, healthcare and energy.

11.4   Projects must be collaborative and led by a local authority or local enterprise partnership (or an equivalent body outside England). Projects should involve at least one local authority, one local enterprise partnership and several businesses. DCMS expect to fund one project of mainly industrial research. Local authorities, public bodies, third sector organisations and academic institutions could receive up to 100% of their eligible project costs (up to a maximum of 30% of total project costs), small businesses 70%, medium- sized businesses 60% and large businesses 50%. The maximum grant available is £10 million, and we expect the project to run for up to two years.

11.5   This is a two-stage competition that opens for applicants on 13 July 2015. The

deadline for registration is at noon on 23 September 2015 and the deadline for applications is at noon on 30 September 2015.

11.6 The competition is an ideal match for Exeter City Futures because the 'Internet of Things' goes hand in hand with pioneering technology and advanced data analytics. In today's connected world, the pioneering technology discussed for Exeter City Futures will need to be connected and the vast amount of data created by such an 'Internet of Things' will need advanced analytics to be useful.

11.7 Exeter as a city is also well suited to the IoT competition for a number of reasons:

- Exeter is ideally sized
  As a city it is big enough to be relevant yet small enough to see city-wide deployment within a £10m initial budget
- Regional growth is a key priority for the current government
  The current government is keen to ensure economic development outside of London. The South West is one such area and Exeter is the logical place to invest in the South West as it is already the definitive economic hub for the region.
- Exeter and the SW is looking for an area of focus to drive innovation
  Exeter and the South West are looking to shift towards a knowledge economy, increase innovation and drive investment in the region. Focusing on IoT alongside data analytics will give these ambitions a focus that will increase the pace of change.

11.8 Work on the bid has already commenced and a website (www.exeter-IoT.co.uk) has been built to act as a focal point for all activity. As the bid requires a consortium of partners, Andromeda Capital are leading the way in contacting potentially interested parties to develop a competitive and compatible mixture of organisations to focus on the key areas of focus mentioned above.

12 Exeter City Futures communications and engagement framework

12.1 The next step for Exeter City Futures is to begin communicating about the project with key stakeholders. This is a complex process and clarity on what is being communicated is necessary. At this stage, a framework for communications is being finalised to cover the period from pre- launch (September 2015) through to launch (April 2016). This framework will:

- Identify key audiences
- Understand their needs from the project
- Involve talks with stakeholders from Exeter business and the public/third sector
- Set out the initial messages and channel strategy (e.g. web site)
- Cover local and national media engagement
- Devise a public-facing brand
- Set out arrangements for public engagement to run from beginning of the Rugby World Cup

13 How does the decision contribute to the Council's Corporate Plan?

13.1 The programme along with the intentions of the Innovation Exeter initiative will directly contribute to a number of the key ambitions and programmes in the Corporate Plan.

14   What risks are there and how can they be reduced?

14.1   Some of the marketing and promotional activity is to be implemented in collaboration with the business community, working together with key stakeholders, regulatory authorities and agencies to ensure a consistent message is delivered for Exeter. Risks remain in the ability and capacity of important contributory organisations to give sufficient time and resource.

14.2   Additionally, it is anticipated that, because data and analytics forms such a cornerstone of this project, data protection and privacy are key areas that should be investigated in more detail. The priority of Exeter City Futures would be that data collection is undertaken in a sensitive and secure fashion, and that said data is then protected in accordance with ICO and EU data protection regulation.

15   What is the impact of the decision on equality and diversity; health and wellbeing; safeguarding children, young people and vulnerable adults, community safety and the environment?

15.1   At its core, this project is intended to improve the quality of life and wellbeing of residents of Exeter, bringing economic prosperity and innovation to the region and safeguarding Exeter's future as a sustainable, pioneering city. As such, responding to the needs of Exeter city residents and key stakeholders is vital to ensuring the success of the project, and particular care is being taken to make sure that the project is as inclusive and accessible as possible for vulnerable, marginalised groups, or groups with special needs. Any initiative that does work directly with these groups will take special care to ensure that their needs and circumstances are sufficiently taken into account.

Karime Hassan
Chief Executive & Growth Director