

RTPI Research Paper

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# Transforming Planning, Places and Scotland: The benefits of investing in a digital planning service

# **ECONOMIC IMPACT ANALYSIS**

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<sup>&</sup>lt;sup>1</sup> KPMG is a global network of professional services firms providing Audit, Tax and Advisory services. They operate in 147 countries and territories and have more than 219,000 people working in member firms around the world.

# **2. Document Series**

The Benefits of Investing in a Digital Planning Service research series is funded by Scottish Government. In commissioning RTPI to undertake this work Scottish Government aimed to explore the evidence base in implementing a Digital Planning Strategy through examining:

- the economic and societal benefits arising from digital transformation
- efficiencies that accrue within the planning system from investment in new technology and validation of the estimated cost and time savings
- the costs (financial and other) of not taking forward digital approaches across the planning service.

For this research RTPI Scotland has coordinated a programme of work analysing the need, demand and possible impacts of supporting a digital planning strategy. This comprises:

- An economic impact analysis, which was undertaken by KPMG, to assess the potential efficiencies that could be provided from a digital planning service
- A user and customer impact analysis setting out the benefits for planning authorities, planning applicants and communities
- A **policy impact analysis** setting out the range of policy ambitions that rely upon a digital planning service
- **Case studies**, which have been written by KPMG, analysing the impact that digital planning could have on Scottish Government aspirations on its net zero carbon targets, in tackling health inequalities and as part of post Covid-19 recovery.
- A summary document setting out the key findings across the papers
- An infographic

This paper provides the economic impact analysis and was written by KPMG.

# 3. Executive Summary

## 3.1 Overview

## **Ambition and Potential**

This report looks to identify and, where possible quantify, the potential benefits of investing in digital planning services in Scotland, including the contribution that investment can make to achieving Scottish Government's wider policy ambitions and national objectives. in the planning sector's ability across UK regions to effectively undertake planning services digitally

## 3.2 Findings

## **Economic benefits**

This research has undertaken economic analysis which has concluded that investing in a digital planning service could, over the next 10 years, result in:

## up to **£200m**

generated in economic benefits directly to users of the planning system (applicants) and from unlocked GVA from the development of marginally viable sites

## up to 1,600 jobs

in the construction and development sectors and their supply chains

avoidance of up to £23.7m of "Do Nothing costs" to the Scottish economy

# 4. Introduction

# 4.1 Background - Transforming Planning

Digital Planning will help transform the Scottish Planning System as part of the wider ongoing programme of planning reform which commenced in 2015/16 following the publication of the Scottish Government commissioned independent review<sup>2</sup> into the planning system. The wider system reform, denoted the Transforming Planning Programme<sup>3</sup> will ultimately encompass the delivery of NPF4 in 2021; the completion of planning policy reforms subsequent to the Planning Scotland Act 2019; and the completion of Digital Planning Transformation itself.

As set out in the Scottish Government's Digital Strategy, digital transformation generally – across all sectors - has the potential, if appropriately harnessed, to support inclusive and sustainable economic growth across industries in Scotland, as well as to drive productivity and innovation by encouraging the take up of new technologies and business models<sup>4</sup>. As a general principle, digital innovation supports productivity by either enabling more or better output of a service or product with the same amount of input (staff, equipment, space) and to the same or better level of quality, thus lowering cost per unit of unit for both public and private sector providers of services and products.

## 4.1.1 An Improved Planning Service

The Ministerial Foreword to the Scottish Government's consultation on the future of the Scottish planning system said "Scotland needs a great planning system". It went on to outline how this was important to enable Scotland to:

- nurture our places, our environment and our communities and guide future change so that it benefits everyone
- co-ordinate and support investment, ensure that future growth reflects the needs of communities and is sustainable
- play a key role in delivering Scotland's Economic Strategy through making the country an attractive place to invest.<sup>5</sup>

The statement also highlighted a need to change the planning system so that it realises its full potential through improving procedures and perceptions and becoming dynamic, focus ed on outcomes, inherently efficient and effective.

To instigate this change, the Scottish Government's Digital Planning Taskforce was established to "to inform, shape and guide an ambitious programme of digital transformation in Scotland, providing strategic level direction on how best to create a world class digital planning service in Scotland." This supported recommendations from the independent review of the planning system that had established that digital innovation, such as the utilisation of big data, specialist systems,

<sup>&</sup>lt;sup>2</sup> Empowering Planning to Deliver Great Places, 2016, Beveridge, Biberbach, Hamilton

<sup>&</sup>lt;sup>3</sup> Transforming Planning Programme, Scottish Government, <u>https://www.transformingplanning.scot/</u>

<sup>&</sup>lt;sup>4</sup> Realising Scotland's Potential in a Digital World: A Digital Strategy for Scotland, 2017, Scottish Government, <sup>5</sup> Places, People and Planning: Consultation on the Future of the Scottish Planning System, 2017, Scottish

Government

Geographic Information Systems and 3D visualisations, should be actively rolled out across all authorities and with the backing of a co-ordinated investment.<sup>6</sup>

It is believed that digital planning approaches can provide efficiencies that can be reinvested into the planning service to support its further improvement. This is important at a time when Scottish planning authorities' budgets have decreased in real terms by 40.8% since 2009; there has been a 25.7% loss of staff in planning departments since 2009 and that only 0.32% of net revenue budgets in local authorities were spent on development management and development planning, a reduction from 0.63% in 2015.

## 4.1.2 A Place-Based Approach

It is also considered that an improved, digital planning system can support Scottish Government to more effectively drive inclusive economic growth, move Scotland to net zero carbon by 2045 and tackle the social and health inequalities that blight the country. 'Place-based' approaches are increasingly seen as a guiding principle for tackling these and the Place Principle has been adopted by Scottish Government and COSLA to help overcome organisational and sectoral boundaries, to encourage better collaboration and community involvement, and the positive impact of combined planning of energy, resources and infrastructure investment.

The introduction of the Place Principle further demonstrates the need for local authority services and public agencies to work together and combine their strengths to tackle complex issues. Planning services have the potential to support these approaches. For example, digital planning approaches can support closer working between spatial/ land use planning and community planning, which is currently undertaken through Local Outcome Improvement Plans. Digital planning approaches can facilitate how they can support one another to deliver outcomes for places and communities; to have complementary approaches and processes; and to share resources, data and knowledge.

The role of the Place Principle and planning has been supported by number of recent reports. For example the Infrastructure Commission for Scotland's "Phase 2: Delivery Findings Report: A blueprint for Scotland" recommends that Scottish Government should enshrine the use of the Place Principle within planning practice, by end of 2021 and that in the development of National Planning Framework 4, Scottish Government should establish a cross-portfolio and robust evidence-based land use appraisal and prioritisation approach by end of 2021, which vertically aligns national, regional and local needs. It also recommends that "a centrally held data resource is developed by the end of 2021, to provide open-source data that will inform place need and demand, including effective asset development, refurbishment and use, for an inclusive net zero carbon economy"<sup>7</sup>

The Report of the Advisory Group on Economic Recovery in discussing the public sector's rapid adoption of new ways of working and regulating during lockdown has said that change, pivoting direction and fleetness of foot are very possible and it is well positioned to switch to more agile approaches to innovation, policymaking and regulation. It highlights how a number of regulatory agencies and planning authorities are testing new ways of becoming active drivers of business and community innovation, investment and jobs.<sup>8</sup>

Recent research published by the Royal Town Planning Institute Plan The World We Need also outlines the roe of planners in supporting a post-COVID recovery and the importance of place-

<sup>&</sup>lt;sup>7</sup> A blueprint for Scotland, May 2020, Infrastructure Commission for Scotland

<sup>&</sup>lt;sup>8</sup> Towards a Robust, Resilient, Wellbeing Economy for Scotland, June 2020, Advisory Group on Economic Recovery

based vision and leadership<sup>9</sup>. It highlights the need regional bodies being tasked with collecting and analysing demographic, economic, social and environmental data, providing local authorities and other stakeholders with consistent, trusted and timely evidence to inform strategic planning over wide areas. It says that local authorities should have access to open source scenario modelling tools which allow for different policies, land uses and infrastructure investments to be tested against key sustainability criteria and that there is a need for the standardisation of common built environment language, processes, documents and data, and by ensuring that planning documents are published in a machine readable format. The report also discusses the role of digital tools for inclusive and participatory planning in complementing traditional face-to-face methods, enabling discussions with diverse stakeholders to gather qualitative data on local priorities for place, and enabling planners to analyse large volumes of representations.

# 4.2 Planning and Economic Outcomes for Place

Planning as a public service is an essential democratic function undertaken on a variety of spatial levels, and which impacts the economy in a variety of ways through its dual roles as a responsive regulator of land use activity, and as a strategic and proactive visioning activity for the form of future economic activity and development in a defined spatial area.

## 4.2.1 The Regulatory Role

The development management function of planning in particular ensures that all development that comes forward within the jurisdiction of a Planning Authority complies with both local and national plans and policies. According to Watkins and Adams, under commission from the RTPI to study the 'Value of Planning' between 2014 and 2016 "planning is critical to providing clarity and confidence for investments by markets so that they are able to deliver good development"<sup>10</sup>. Furthermore, the process of development management itself works to *improve outcomes* - not just through "process" – but also provide feedback on third-party planning applications themselves, so that the results are not simply a binary "yes" or "no", but allow for conditionality and constructiveness of "yes, when made better".

**Expected benefits from digital transformation** will mean that the regulatory role of planning can in theory be completely *more efficiently*. That is, that the regulatory benefits can be ensured to the same levels at present, but reducing the necessary constraints (at least in terms of time and delay) in which the regulatory actions are performed.

## 4.2.2 The Proactive and Strategic Role

Encompassing spatial planning (including 'plan-making') and other roles (e.g. masterplanning, economic development, urban design, etc.), activities which support well-planned, well-functioning places provide the economic environment in which businesses and individuals can succeed, and deliver well-connected, healthy and sustainable places.

<sup>&</sup>lt;sup>9</sup> See RTPI, <u>https://www.rtpi.org.uk/plantheworldweneed</u>

<sup>&</sup>lt;sup>10</sup> Adams.D, Watkins.C, et al, (2016), University of Glasgow, University of Sheffield, RTPI,

**Expected benefits from digital transformation** will mean that planners undertaking the proactive and strategic role of planning will have a *greater array of analytics and capabilities* at their disposal to make better informed and better equipped decisions about where and how to plan for the future of new and existing communities to best achieve positive socio-economic outcomes.

## 4.2.3 Planning's impact on the economy

Socio-economic outcomes for places are measured through a variety of metrics, for example: employment rate, GVA per worker, indices of multiple deprivation, access to quality education, health, greenspace, to name a few.

Planning in its broadest, place-making sense is clearly a key enabler of successful places, however it is also clearly only one of a number of influencing factors: For example, historical trends and geographic location, the locational decisions of firms, investment decisions of Governments (local and national), macroeconomic conditions, quality of education, innovation and R&D in the local economy and demographic and migration patterns – all also clearly play just as significant roles (although some have endogeneity with placemaking – e.g. locational decision of firms.)

The main challenge in defining the economic impact of planning has therefore always been the attempt to disentangle the impact of planning and place-making activities from the wider macroeconomic and external impacts affecting a given place at a given point in time.

A second challenge however is in clearly defining 'planning' itself. Planning as a legally defined system and set of democratic and regulatory processes is broadly encompassed by the development management and spatial planning processes, which are the statutorily required services provided by Local Authorities in Scotland. However, there is a broader definition of planning, which encompasses ideas of placemaking and strategic planning. In this broader sense, planning is carried out by a range of actors – including Local Authorities, but extended to regional and national governments, the private sector, and individuals and communities. The kinds of activities covered by this broader definition include, strategic (pan-local authority) transport planning, masterplanning, urban design, community planning, and economic development. Watkins and Adams identified the following five areas where planning, across both its strategic and its regulatory roles influences economic outcomes in places:

## • Influencing supply and demand

 For example, through its role identifying required investment in strategic infrastructure, connectivity, and form of place – which drive connectivity outputs (between homes and jobs) and attract inward investment into a location.

## • Delivering welfare impacts

 For example, by ensuring that new and existing development are appropriately integrated and connected to social and wellbeing infrastructure – including schools, greenspace and healthcare.

## Creating markets

• For example, through its role as a coordinator in overcoming place-based market failure. For example, the role of masterplanning (and development corporations) and

compulsory purchase orders in maximising the efficiency of land-use and circumventing the ability of individual actors to 'hold the market to ransom'.

## • Shaping behaviours and decisions of economic actors

 For example, through its role influencing how people interact with the places in which they live, how they travel (modal choice), how likely they are to try and find a job (accessibility to employment), and how likely they are to integrate with their community (urban design, safety, inclusivity).

## • Influencing transaction costs

• For example, through the operation of an efficient planning system, which provides confidence and consistency of decision making, provides clear signals to the market, and delineates objectives for rule-based growth.

## 4.2.4 Quantifiable Impacts of Planning and Digital Planning

Valuing the impact of planning is nonetheless still a work in progress, with the RTPI presently working both on devising a new framework for assessing wider planning outcomes, as well as a quantifiable approach to economic impact in particular.

Just as the impacts of planning are a subset of the influences on economic outcomes for place, so will the impact of digital planning be a subset of the influences that determine planning's or planners' ability to deliver the individual elements through which planning impacts economic outcomes.

The implication is logically that the quantified benefits in this evidence base are likely to be a conservative estimate of the overall economic benefits of digital planning, being constrained to one area only of the expected positive impacts of digital transformation.

## 4.2.5 The transmission of impacts

The positive changes in the planning system brought about by Digital Planning transformation will be expected to lead to positive economic outcomes through a number of impact areas and specific mechanisms. Set out broadly as follows, these three key identified transmission-impact areas are: **Engagement**, **Data** and **System**:

## 4.2.6 Engagement

## **Features**

- A national planning platform (planning gateway) with open accessibility to all, including a new Planning Gateway website
- Transparent and collaborative plan-making and approval processes in which communities and individuals can clearly see, be informed about, and receive notifications on applications of relevance to them

An easy-to-use system for providing comments, objections, application updates, which provides guidance and updates to users, as well as storing inputs as easy-access data for planners.

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### Effects

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Better engagement will lead to better outcomes in terms of the quality and consistency of planning decisions. Planners will be better informed when making decisions, both when developing spatial plans and when determining planning applications.

Citizens will feel greater involvement in the planning process and ownership of outcomes – not just for their own applications, but for development plans for their community as a whole.

#### **Economic outcomes**

In terms of the development of spatial plans, more and better engagement will ensure that local development better reflects the priorities of individuals and communities for the future development of their areas.

This supports the democratic objectives of planning, but also ensures that the allocation of resources for future development reflects where individuals place economic value on new development outcomes.

Better and more diverse engagement will also enable planners to better understand the welfareimpact of plan-making and planning decisions on different communities.

## 4.2.7 Data

## Features

- Open-data and mapping service, enabling integration and storing of data from multiple sources (e.g. to easily view time-series price changes in land values within a planning authority and a low level of spatial disaggregation)
- Automatic data back-up and failover system
- Data-sharing on integrated platform for single source of truth and lowered data integration costs
- A searchable site database for investments in the built environment

#### Effects

Better data will lead to better decision making, for example in relation to planning's role in supporting key policy areas – such as decarbonisation and achieving sustainable, inclusive growth. Planners will have access to clear and informative spatial data to support better informed development of spatial plans and in determining planning applications.

The private and wider public sector will also be able to benefit from mapping and open-data, with the same access as planners. This will help facilitate and guide investment decisions by the market.

#### **Economic outcomes**

Easier access to organised and useable spatial data will enable planners to make better decisions in spatial planning and development management that better enable the achievement of wider place-based social, environmental and economic objectives.

Across both the data and engagement transmission impact-areas, better informed planners and planning will enable more efficient consideration and response to planning applications.

Enhanced data and mapping tools will enable planners to better understand the environmental and health impact of new developments, for example by enabling the consideration of likely connectivity requirements between homes and jobs given transport infrastructure, or likely uptake of active transport at new developments given internal and external provision of sufficient infrastructure.

## 4.2.8 System

## Features

- Intelligent application forms guiding eligibility of applications, ensuring quality of data input
- Interactive applications providing automatic notifications and updates to applicants
- Uniform system across Scotland Support knowledge transfer through the system and investor confidence

### Effects

A more efficient system will enable better planning performance within planning departments and an improved user experience for applicants.

## Economic outcome

Applicants to the planning system will experience a more streamlined and efficient approach to submitting applications and awaiting determination.

This will incentivise investment further investment and increase the attractiveness of Scotland as 'a place to do business' by easing the impact of a perceived regulatory burden.

Planners will see the amount of time they spend on determining applications reduced. For example, at present, up to 40% of current applications are 'incomplete' on receipt by a planning department, requiring the planner to request further information from the applicant and provide further detailed guidance on input requirements.

The table below summarises the features, transmission mechanisms and expected economic outcomes across these three areas:

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		Data	Engagement	System					
nsmission utcomes lied by ures of digitally sformed uning em to icit nomic efits	Features	<ul> <li>Open-data and mapping service</li> <li>Data back-up, failover system</li> <li>Data-sharing on integrated platform (single source of truth, lowered data integration costs)</li> <li>A searchable site database</li> </ul>	<ul> <li>Intelligent application forms – guiding eligibility of applications, ensuring quality of data input</li> <li>Interactive applications – automatic notifications and updates</li> <li>Uniform system across Scotland will support knowledge of the system and investor confidence</li> </ul>	<ul> <li>A national planning platform – with open accessibility to all, including a new Planning Gateway website</li> <li>Transparent and collaborative plan- making and approval processes</li> <li>Notifications of relevant applications (e.g. in local area)</li> </ul>					
	Mechanism	Better engagement leads to better outcomes (quality and consistency): Planners better informed when making decisions. B when developing spatial plans and when determining applications. Better data will lead to better decision making (especially with regard to decarbonisation and digital planning objectives). Planners have access to clear and informative spatial data to support better informed development of spatial plans, and in determining planning applications. The private and public sector benefit from mapping and open-data too. Facilitating and guiding investment decisions. A more efficient system will enable better planning performance within planning departments and an improved user experience for applicants.							
			ter engagement will ensure that local develo	opment better reflects the economic					
	Economic Outcomes	Easier access to organised and useable sp development management that support v Enhanced data and mapping tools will ena	or future development reflects where indivionatial data will enable planners to make bett wider place-based social, enviro and econ of able planners to better understand the envion homes and jobs given transport infrastructo residents.	er decisions in both spatial planning & ojectives. ronmental impact of new developments					

# 5. Quantitative Assessment of Reduced Transaction Costs from Digital Transformation

## 5.1 Planning and Economic Outcomes for Place

The quantitative analysis undertaken for this evidence base draws primarily on the principle of a reduction in transaction costs to applicants to the planning system brought about by digital transformation.

This approach takes note of the nuance of the argument put forward by Watkins and Adams<sup>11</sup> and in reference to Morphet (2015)<sup>12</sup> that planning should not generally be considered as a delay to economic activity due to the 'myriad and complex considerations and that it necessarily needs to consider to ensure development outcomes are optimised' – i.e. that it ensures that the negative externalities of poor, unconsidered development are avoided. But within this context, also noting the linked logic that, this point being considered, any speeding up of the process that doesn't compromise good planning outcomes can also only be a positive benefit.

Therefore, the quantitative analysis assesses a scenario in which planners are able to carry out their daily tasks in reviewing and determining planning applications to the same quality as at present, but more efficiently. i.e. that they are assumed to save time on completing a set workload. The benefits of this time saving are then passed to applicants of the planning system in the form of faster determination of planning applications.

## 5.1.1 Existing Research

The starting assumption for this analysis builds on survey work undertaken by Scottish Government in 2019, of six Scottish LAs, in order to try and ascertain the magnitude of a potential task-based time saving over the course of a typical working day.

The logic for the existence of time-saving efficiencies for planners is based on the effect of the 'system' benefits set out in the introduction. That is, the benefits which are likely to streamline the application process for both users (applicants) and operators (planners) in the planning system, as well as assuming that planners are better informed upon receipt of an application thanks to enhancements in 'engagement' and 'data'. Whilst the final features of digital transformation are still in detailed design, it is expected that overall effects in particular will include:

• Smart applications that prevent incorrect or incomplete information being submitted, and thus removing the c40% of current applications which are currently submitted as incomplete.

<sup>&</sup>lt;sup>11</sup> Watkins, Adams, ibid

<sup>&</sup>lt;sup>12</sup> Morphet, 2015, Applying Leadership and Management in Planning

This will significantly reduce time spent by planners asking for clarifications for further or corrected data.

- An improved user interface which provides step-by-step guidance for applicants, making the application process more efficient for them, and improving the likelihood of receiving a good quality application from the planner's perspective
- Data mapping and site-level data provided within the planning gateway / platform which enables applicants to better understand sites and constraints and what is more and less likely to be eligible development (and under what conditions) before applications are submitted.
- Interactive and automated updates for applicants on the status of planning application as it progresses through the system. This will reduce the amount of time that planners spend fielding enquiries from applicants.
- Improved guidance to commenters and objectors within the platform, helping to ensure that comments and objections are valid and material. Reducing the amount of time planners spend at the moment reviewing invalid comments.
- A 'One-stop-shop' electronic data repository for all relevant inputs a planner requires to determine an application, including all required application data, community comments, statutory consultee inputs. Reducing time chasing and finding and storing data within different sources.
- A failover backup system to mitigate current cases where data is lost or corrupted.

The survey asked for the amount of time that colleagues currently spend dealing with activities which could be reduced or removed with interventions such as those set out above, with the full questions set out in Appendix ii. 206 responses were received. Overall, the average expected forecast daily time saving was identified at 28%<sup>13</sup>.

## 5.1.2 Transfer of Time Saving Benefits from Planners to Applicants

There are broadly two key phases where applicants (users) interact with the planning system. The first is in the collation and submission of planning application inputs – i.e. the submission itself and all required technical and supporting documentation. The second is in awaiting the determination of their planning application.

In the second phase, the analysis in this evidence base assumes that a proportion of time savings to planners in the assessment of applications themselves are transferred from operators to users, in the form of faster determination of planning applications. The extent to which these time savings are passed directly from operators to users in practice will depend on what operators (planners) do with the time saved, and this will ultimately be based on policy and practice decisions within a planning department.

For example, some application assessment activities may have a minimum duration regardless of time taken to achieve them that can't be easily reduced, such as the period allowed for submission of comments and objections. Furthermore, with time-saved on administrative or data-collation and

<sup>&</sup>lt;sup>13</sup> 28% was the outcome of the survey work, but Scottish Government also tested a 10% scenario to account for the potential of optimism bias in responses.

review, planners may choose to spend more time engaging the community of studying wider impacts of development (e.g. using new and evolving data tools). Nonetheless, where planners have completed tasks but are awaiting a fixed deadline (e.g.) comments, they may be able to move onto commencing the next application in their case load, and where they spend more time considering data and engagement inputs, they may be more efficient in making an ultimate determination (and reducing the likelihood of appeals and objections).

As a general principle, where time-savings can be fed directly into the overall applicationdetermination timescales - such as in the initial quality validation of application data before it is opened to comments or the final validation itself, it is assumed that applicants will be able to benefit directly from these time savings.

And it is this time saving – as it is transferred from operators of the planning system (planners) to users of the planning system (applicants) which the quantitative analysis in this evidence base seeks to assess. This time-saving is a direct reduction in transaction cost for an applicant needing to pass through the planning system before it can commence a development project.

## **Sensitivity Test**

The extent to which the 28% analysed time-savings figure is likely to be an accurate assumption of time savings for applicants is therefore linked to the extent that a) these forecasts are likely to realistically occur post-digital transformation, which is also related to the features of the final design of digital transformation itself, b) that time savings to the time taken for planners to complete tasks can realistically be transferred to applicants (i.e. rather than redirected elsewhere), and c) the extent to which optimism bias existed in the completion of the original survey. Therefore, the quantitative analysis itself applies sensitivity tests at 75% and 50% to an upper bound measure. Importantly it is assumed that to deliver reduced transaction costs (as a form of improved planning service) total number of FTE resource remains the same before and after digital transformation. It is also important to note that this analysis is based solely on the development management aspect of the planning system. These benefits are therefore likely to be only a subset of the total expected benefits from digital transformation, such as those delivered via improvements to spatial planning as set out in the Case Study document, which is part of this document series.

## 5.2 Methodology

## 5.2.1 Outline of Analytical Approach

As set out above, the quantitative method assesses the impact for applicants to the planning system if they also receive the system-efficiency time saving benefits from digitisation expected to be received by operators of the planning system. That is, they receive a time saving between an upper bound of a **28% reduction** and a **lower bound reduction of 14%** in the amount of time they wait, on average, for a planning application to be determined.

This assumes that time savings received by operators of the planning system are received on activities related to the determination of planning applications, or that ultimately facilitate the determination of planning applications, and that therefore the benefit is transferred to applicants. In the upper bound scenario, all of the time savings realised by operators are also realised by applicants. This means that applicants will receive responses to the determination of their planning

applications 28% sooner than in the do-nothing (status quo) scenario. In the lower bound scenario therefore, only half of the assumed time-saving benefits are able to be passed to applicants.

Assuming that the applicant is applying for permission to undertake an economic activity, the time saving will provide a financial benefit to the applicant through increasing the NPV of a project when measured at a 'day zero' project go/no-go decision when weighing up expected project IRR versus alternative investment decisions. This is built on a realistic assumption that when considering the end-to-end project returns, accounting for all costs, revenues and timescales, the time taken to achieve planning permission has an implicit impact on the overall value of undertaking the project as seen by the investor.

For any applicant that will be able to deliver a project sooner, the net present income will increase by bringing forward the date at which revenue or value begins to be realised. At the same time, where projects are financed through debt, the amount of time over which interest is accrued will be reduced<sup>14</sup>.

In economic terms, in addition to the micro benefits to individuals' applicants, these effects would be expected to incentivise a greater number of applicants by 'unlocking' previously marginally unviable sites, which could deliver an additional increase in overall economic activity at a macro level. These wider impacts are identified in 3.3.4 below.

The financial benefits are identified for distinct 'categories' of applicants are assessed as discussed immediately below.

## 5.2.2 Planning Categories Assessed

Three broad categories of application-types made up over 75% of planning applications to Scottish Local Authorities in 2019.

These were housebuilders [5,500 applications, 15%], households (13,100 applications, 37%), and business / other (8,000 applications, 23%).

In addition to these categories there are a wide range of further application types which are not easily grouped for analytical purposes. Some of these have a clear definable and direct economic benefit, such as transport infrastructure, whilst others do not, such as signage, social infrastructure, and heritage / conservation applications.

Due to these three main categories forming the clear majority of applications, and the fact that they can be grouped and studied according to similar variables on which data is collected by all Scottish planning authorities, the quantitative analysis is restricted to assessing these three categories only. Nonetheless, these other, non-quantified sub-categories of application will have varied economic and non-economic benefits which should not be discounted in an overall strategic assessment of the value of digital transformation.

<sup>&</sup>lt;sup>14</sup> Reflecting the fact that debt is unlikely to be undertaken until planning permission is determined, the modelling approach accounts for debt accrual in the applicant's project financial planning only once planning permission is achieved.

The implication of this limitation is that therefore that the quantitative results presented in this evidence base are likely to be conservative in relation to total actual benefits as they have been restricted to 'categories' or sectors where it is deemed reasonable and possible to quantify and monetise benefits.

## 5.2.3 Housebuilder

The housebuilder planning category accounts for all applications received by Scottish LAs across two sub-categories of applicant, 'large' and 'small' housebuilding applicants, which respectively refer to applications of more and less than 50 units.

The approach develops a representative model for a sales-based private sector housing development, using locally sourced input data on land values, sales prices, build costs, weighted average cost of capital, and timing phases. A positive shock is provided to the model in the form of reducing the time taken for the model to complete the 'planning assessment' phase. This provides a positive increase in NPV for the representative project based on earlier recognition of revenue and lower overall finance costs.

Weighted average data is then used, based on knowledge of application types and volumes by Local Authority, and accounting for differences in exogenous variables across Scotland, to assess an overall Scotland-wide benefit from the scale of benefit in this category

The detailed methodology for inputs and modelling for the housebuilder category is set out in the **appendix i** below.

## 5.2.4 Householder

For the householder segmentation, a similar approach is followed to the housebuilder approach. It is assumed that householder applications will add value to a property to the extent that they increase the useable floorspace of that property. Application data from Scottish planning authorities has been sampled to understand the proportion of 'householder' applications that are of this nature.

Following a similar approach to one used previously by MHCLG in England, it is assumed that increases in floorspace (typically via extensions or conversions) will add monetary value to a property relative to the extent of additional floorspace delivered. In reality, whilst many householders will seek to add floorspace to achieve the welfare benefits of additional space rather than unlocking additional value (at least in the short term), the same logic of reduced transaction costs is applied to achieving these welfare benefits and the monetary value unlocked can be seen as either a proxy for the welfare impact (i.e. the value that someone else or 'the market' would pay for that additional floorspace), or as a direct monetary value – for example for a property investor. The modelling principles are the same as for the housebuilder category, with differences in the detailed methodology for inputs and modelling approach for the householder category is set out in **appendix i** below

## 5.2.5 Business

Quantitative analysis of the business / other category follows a slightly different approach to housebuilders and households, but based on the same fundamental principles to isolating the planning efficiency effect of digital transformation.

Due to the diverse nature of applications in both the business and other categories it was not deemed feasible to construct representative financial analyses for individual sectors and types of business activity.

Instead the approach taken is to estimate the scale of economic activity in the relevant industries / sectors applying for planning application in each Local Authority (from known sampled planning authority data on volume and nature of applications by LA), and scale this economic value by the number of applications received in each LA, weighted for the relative scales of economic value by sector and per-business as these vary across Scotland.

The detailed method and inputs used for assessing the business category are set out in **appendix i** below.

## 5.3 Findings

This section sets out the analysed quantitative benefits from improvements in the efficiency of the planning system. These benefits are quantified for each of the three applicant categories, as well as operators of the planning system themselves.

## 5.3.1 Operators

As mentioned above, previous Scottish Government analysis (not repeated in detail in this evidence base) found that to maintain the status quo of development management performance in Local Authorities, resource cost savings could be achieved of up to £59m per annum.

These cost savings are based on survey analysis which identifies potential time-savings that could be achieved in the daily workload of planners and administrative staff in planning departments through digital transformation. This saving represents a benchmark against which the economic benefits to applicants (set out in 3.3.2) can be cross-referenced. This saving should be interpreted as an alternative to the applicant benefits identified below, and as a policy option for how the reduced transaction cost benefits from digital transformation could be realised.

That is, the analysis assumes that it would not be possible to achieve all of the resource savings in addition to the applicant benefits, i.e. these should not be considered additive, as taking resource savings implies maintaining the current standards, including the current level of efficiency, but for lower cost.

In reality, the relationship between time taken to complete individual tasks and the length of time required to determine a planning application is complex. It is assumed that hours saved on tasks cannot directly transfer to hours saved on overall application determination time without detriment elsewhere in the system, e.g. total annual caseload, as set out in Section 3.1.2 above.

## 5.3.2 Applicants

This section sets out the analysed quantitative benefits to the three analysed applicant categories: Housebuilders, Householders, and Businesses. Quantitative results are assessed on a per annum basis and then a discounted estimate is made over the assumed 10-year lifetime<sup>15</sup> of the effects of digital transformation.

In the applicant scenarios time savings to planners are assumed to be past directly to applicants due to the fact that determining the application (i.e. that for which the applicant is waiting) is the planner's daily activity. As in section 3.3.1, it is assumed that resource savings cannot be achieved in tandem with application benefits as this would lead to negative effects elsewhere in the planning system.

## 5.3.3 Housebuilder

Housebuilders achieve benefits from reducing the length of time waiting to receive determination of their planning application through the dual NPV impact of being able to realise project revenues sooner, and a reduced length of time financing debt.

Housebuilding – Direct benefits of digital transformation of the planning system					
	NPV Benefit	No. of applications	No. of homes assumed approved*	No. of homes assumed started*	
A) Total housebuilding – p.a. (A = B+C)	£3.6m	4,678	42,361		
B) Local (small sites) – p.a.	£2.2m	4,581	29,822	22,000 (increasing to 25,000)	
C) Major (large sites) – p.a.	£1.4m	97	12,539		
D) Total NPV benefit (assumed 10 year lifespan discounted at HMT rate of 3%)	c£30.8m				
E) As D, with 75% sensitivity	£23.1m				
F) As D, with 50% sensitivity	c£15.4m				

<sup>&</sup>lt;sup>15</sup> See appendix ii for detail of discounting and lifetime benefits approach

The analysis suggests that a per annum NPV benefit from digital transformation for both Local and Major applications (category A above) could be worth up to £3.6m to the development sector in Scotland.

Section B) and C) show the separate effects for local and major housebuilders and corresponding small and large sites respectively.

D) Shows the net public value benefit over an assumed ten-year lifespan. 10 years is assumed as a reasonable period for a lifespan of this kind of digital project based on when the last digital innovation in the planning system took place (eDevelopment Scotland), and industry assumptions on the lifespans and obsolescence of software, websites and operating systems. 5 years is therefore taken as a conservative estimate in line with HMT Green Book principles.

E), F) and G) show the same lifetime NPV benefits as D) but with sensitivities applied for 75% and 50% of total benefits, to provide an indication of how the scale of benefits change if not all the operator time savings were transferred to users – either because of transmission inefficiencies or policy choices.

At the firm level, a weighted-average representative local housebuilder might expect to see a NPV benefit of c£1,500 per application post digital transformation. A representative large housebuilder might see an average NPV benefit of c£25,000 - £30,000 per application. This provides an indication of what, in an alternative scenario, could be reasonably "requested" as an increase in planning fees to meet an improved service.

As shown in the third, fourth and fifth columns, the analysis assumes that of approximately 45,000 homes assessed in a year, approximately 42,000 are approved<sup>16</sup>. Based on trend completions data, it is assumed unrealistic that more than 22,000 homes will be delivered in a year in the near term. 22,000 is therefore taken as an upper bound number of housing-starts to estimate the economic benefit (from economic activity) of housebuilding in year 1, rising to 25,000 in line with national targets by year 10<sup>17</sup>.

## 5.3.4 Householder

Householders are deemed to receive benefit from achieving faster planning responses through a similar mechanisms to housebuilders, where they are applying to undertake a project which increases economic activity or property value. That is they are able to realise the value increase from any increase in the useable floorspace of their property relatively sooner in the digital transformation scenario than in the do-nothing scenario.

<sup>&</sup>lt;sup>16</sup> Using Scottish Government Planning Statistics data for % of approvals

<sup>&</sup>lt;sup>17</sup> This ratio between applications approved and homes completed / started in any year is deemed reasonable given comparison to English data which identified the existence of approximately 2 approved applications per home completed in recent years.

Householder – Direct benefits of digital transformation of the planning system					
	NPV Benefit	No. of applications			
A) Total Householder p.a.	£950,000	10259			
D) Total NPV benefit (assumed 10 year lifespan)	£8.1m				
E) As D, with 75% sensitivity	£6.1m				
F) As D, with 50% sensitivity	c£4.1m				

The analysis suggests that the total value of time-savings to householder applications could be up to an upper bound of £950,000 per annum and within the range of c£4.1m to £8.1m over10 years. This figure represents total increase in property value from undertaking projects related to the expansion of net useable floorspace in a dwelling, net of construction costs and discounted over the expected duration of the project.

Although households make up the majority of applications to the planning system, the individual scale of end-development from an application is significantly smaller than that of a housebuilder application<sup>18</sup>. Additionally, individual households are assumed to have lower cost of capital requirements than businesses investing in development. i.e. whilst there will be direct monetary value impacts from undertaking enhancements to individual households, the motive for undertaking such projects will often be to recognise the welfare gain (e.g. additional floorspace) for existing objects rather than explicitly to increase asset value.

## 5.3.5 Business

Businesses typically apply for planning permission for three main reasons likely to have an end economic value: i) change of use class, ii) extension to existing operations, iii) development of new site for new economic activity. Because of the nature of the current data collection system, there is

<sup>&</sup>lt;sup>18</sup> N.B planning applications for the construction of 1 dwelling unit and more are considered as housebuilder applications. Household application therefore considers all applications <1 dwelling unit.

inconsistency between the way Local Authorities collect data on business applications to the planning system. In particular, many Local Authorities classify change of use applications as 'other' applications rather than business applications. To this end, the analysis undertaken has filtered both 'business' and 'other' applications from Scottish planning data for the three categories of application type i, ii and iii described.

Business – Direct benefits of digital transformation of the planning system				
	Uplift value	No. of business & 'other' applications	Number of applications related to economic activity	
A) Total Business Activity Benefit – p.a.	£7m	7268	4126	
B) 'Business' category		1409	1276 (86%)	
C) 'Other' category		5859	2850 (49%)	
D) Total Business Activity Benefit – 10 year NPV	£59.9m			
E) As D, with 75% sensitivity	£44.9m			
F) As D, with 50% sensitivity	C£30m			

The analysis suggests that the business category is set to achieve the largest overall benefit of the three categories assessed. Total upper bound 10 year discounted benefits are estimated to be c£60m, which is reflective of the both the number of applications in the category and the value of economic activity within typical sectors applying for planning permission.

This uplift value is interpreted as the economic gain achieved by applying the same uplift value for 'planning efficiency' as identified in the housebuilder and householder bottom-up models, to the weighted value of economic activity applying for planning permission in each Local Authority via the filtered 'business' and 'other' categories, as discussed in detail **in appendix i**.

## 5.3.6 Overall Net Additional Benefits

Overall – Direct benefits of digital transformation of the planning system				
	Uplift value	Total number of all applications	Total number of contributing applications	
A) All Categories Total Benefit – p.a.	£11.55m	1409		
D) Total All Categories Benefit – 10 year NPV	£98.8m			
E) As D, with 75% sensitivity	£74.2m			
F) As D, with 50% sensitivity	£49.5m			

The summary table above for overall benefits sets out the summative quantitative outputs across all three planning categories. This is deemed to be the initial (i.e. before consideration of wider benefits) public social and economic benefits of digital transformation of the planning system Total per annum benefit across all three categories is estimated to be up to £11.55m and total lifetime (10-year discounted) benefits is estimated to be in the range of £49m to £97.7m.

## 5.3.7 Wider Impacts

As mentioned at the end of section 3.2.1, increasing effective NPV for a representative applicant will deliver positive knock-on wider impacts to the economy. Reducing the transaction cost of undertaking business in the built environment / development sector will both increase returns to investors and open up a wider range of investment opportunities.

For example, focusing on the housebuilding sector, and considering the key existing policy challenge for Scottish Government for vacant and derelict sites, reduced transaction costs at the margin will have the effect of increasing the number of sites considered viable by the private sector (without the need for public intervention). This would be expected to see the most marginally unviable vacant and derelict sites become viable investment opportunities thanks to the margin of reduced transaction cost in the overall end-to-end development process.

Taking the most conservative outcome for the housebuilding sector analysed above (i.e. a total net benefit to the housebuilding sector of £15m, or £25,000 per average site), it is possible to estimate the extent of additional development that could come forward on vacant and derelict sites in Scotland.

The challenge of vacant and derelict sites in Scotland has been extensively studied elsewhere<sup>19</sup>. Taking the principle that a proportion of vacant and derelict sites would be appropriate for housing development subsequent to remediation activity (e.g. demolition, site clearance, site preparation, etc.), we assume that to deliver homes on such sites, an increment to pay for these remediation activities will need to be added to the overall cost calculations in a developer's residual land valuation (including need to achieve a reasonable profit margin).

In practice, some vacant and derelict sites in Scotland will require a significant amount of investment to unlock, whilst others will be marginal. Assuming that the most marginal sites will be developed first, a conservative estimate of £23,000 per home as cost of remediation is taken as being the average cost of 'unlocking' the most marginal sites, based on data for similar 'grant per home' requirements from existing remediation schemes<sup>20</sup>.

Assuming that the £15m (lower bound) estimate of additional returns to developers is re-invested in 'additional sites' (that is, sites not already earmarked for development by competitors or 'ovenready' sites in local plans) that are currently considered 'locked', an additional c650 homes could be unlocked over the 10 year period used for analysis in this evidence base.

Using latest market and Government data for the GVA and jobs impact of homes delivered in Scotland, the total economic impact of this number of homes could equate to up to:

- £107m gross-additional GVA from homes delivered across Scotland (expenditure method, based on weighted average of input-output values across Scotland).
- 1,625 temporary, gross jobs within both the construction sector and wider supply chains
- Equivalent to a 1.2% overall additional GVA 'digital dividend' to the construction sector.

It is important to note that these output and jobs impacts should be considered as gross effects. That is, given an assumed fixed total factor productivity and employment rate in the wider economy, a proportion of these benefits will be driven by a reallocation of resources from elsewhere in the economy. Additionally, they require a wider set of factors to induce additional investment than can be ascribed to digital planning transformation directly.

<sup>&</sup>lt;sup>19</sup> See for example the work programme of the Scottish Land Commission: <u>https://landcommission.gov.scot/our-work/housing-development/vacant-and-derelict-land</u>

<sup>&</sup>lt;sup>20</sup> Additionally, it is assumed that on account of the large reserve of vacant and derelict sites in Scotland, it is not required to marginally increase the cost of unlocking given the number of homes assumed delivered and the land required to deliver them.

## 5.3.8 Do Nothing

In the Do-Nothing scenario, it is assumed that Scottish Government continues to seek performance improvements and the implementation of NPF4 and planning reforms but without investment in digital planning. This would have two key impacts:

- Additional pressure on already strained resource would be expected to lead to worsening quality outcomes from planning in terms of the ability of planners to engage with communities, determine planning applications consistently and in consideration of the full facts, and develop effective spatial plans that provide the enabling benefits of planning on the wider economy. From a transaction cost perspective, applicants may expect to see increased average overall time taken to complete development, for example if reduced quality of outcomes meant that number of decisions taken to appeal would increase.
- 2) Scotland's comparative advantage would suffer in reference to its ability to attract inward investment. Planning as narrowly defined is a key factor influencing investment decisions through its role as part of the overall regulatory framework determining ease of doing business in a location. Planning in its wider sense, incorporating functions of economic development and strategic infrastructure investment, is a key factor influencing the wider business environment which incentivises or disincentivises investment. Assuming competitor geographies continue to investment in their planning systems, a do-nothing approach would see Scotland lose out relatively over time.

These negative impacts are quantified using an analogous approach to calculating the potential benefits of digital investment. Specifically, it is assumed that over the 10 year period of which life-time benefits of digital planning would be expected to occur, in the do-nothing scenario, demand for planning services continues to grow but without the enhanced capabilities and processes to maintain existing standards against increased demand.

In a scenario focused on the housebuilding sector, where annual homes delivered increase on trend to a target of 25,000 homes per year, it is assumed that an additional 17% further applications will be required on 2018/19 totals to achieve this level of development (based on the known surplus of approved applications in relation to housing completions).

Using the same methodology set out above to estimate NPV benefits, an effective increase in workload on planning departments in an otherwise unchanged environment (i.e. without digital planning investment) of 17% is converted to a 17% increase in average time taken to receive planning approval for applicants.

The net economic impact on the housebuilding sector based on an effective lengthening of the time taken to undertake actual expected economic activity is calculated at a cost of **£2.8m per annum**, discounted to £23.7m over a ten-year period.

# Appendix i: Detailed Method and Model Inputs for Each Planning Category

## Housebuilder

In order to analyse the potential benefit of a reduction in time taken to receive a planning application determination for applicants in this category, a simple financial model was developed to reflect how a typical developer might undertake an NPV or IRR assessment on whether to undertake a hypothetical project.

This was broadly based on the principles of the RICS residual land valuation method analysed the expected costs, revenues, and time taken to complete representative phases of the delivery cycle<sup>21</sup>. The representative phases are as follows:

**Pre-application phase**: In which a developer undertakes expenditure on pre-application activities including design and architecture, surveys, preparation of planning application, other technical studies.

**Planning assessment phase**: In which the applicant has submitted a formal planning application and awaits for the determination of their planning application from the planning authority. In reality it is recognised that this phase is not always a clear-cut 'one shot' phase, with applicants amending and resubmitting applications, planning appeals, and information requests reasons among reasons for non-typical assessment phases. For the purposes of this analysis however, the average length of time to determination as analysed in Scottish Government planning data is assumed as the average time that applicants wait for determination.

**Construction phase**: The construction phase follows on immediately from planning-approval, and commences with an assumed completion of a land-purchase option once planning approval has been completed. Whilst in reality there are many land and development ownership models, and developers will assess the market and their wider pipeline before commencing construction, a key assumption that development sooner is preferred to development later is based on assuming standard market conditions, and an expected response of an average (i.e. price-taking) market operator. Construction timelines are based on market reports for scaled build-out rates of development sites in Scotland, varying by size and consequential phasing of development.

**Sales phase**: Sales are phased to align with construction phases and expected length of time to sell units once completed.

Costs are broken down by build costs, professional fees and land costs. They are spread throughout a representative construction period based on market data for length of construction phase by size of development.

<sup>&</sup>lt;sup>21</sup> See RICS, Valuation of Property Development, 2019, <u>https://www.rics.org/uk/upholding-professional-standards/sector-standards/valuation-of-development-property/</u>

Revenue is based on an assumption that all units produced are private sales. PRS and affordable housing are not analysed in the model for simplicity. Sales are spread throughout a representative sales period related to construction phasing, and with sales prices determined by current sales values. Both land and construction costs and sales prices vary by Local Authority based on available data for these variables.

To attain a net present value, an industry estimated Weighted Average Cost of Capital is used as a discount factor. A **weighted** average NPV is then produced for representative 'large' and 'small' housing developments across Scotland. i.e. the analysis accounts for the different volume of applications by type in each LA, and the difference in the key independent variables set out as they differ by LA.

In terms of mechanics of the model, a quicker planning-assessment phase effectively increases NPV by reducing the overall length of time of a development project and reducing the cost of project finance and bringing forward the recognition of revenue. In the Do-Nothing scenario by contrast, the NPV is decreased by effectively increasing the overall length of time of a development project.

The overall scale of benefit to an individual development project will also depend on land values and sales prices, which vary across Scotland, as well as the total number of units delivered on representative sites.

A scale of benefit is estimated for Micro users (applicants) in the Local and Major housebuilding sub-segmentations based on these collective factors, and then aggregated to derive the Scotland-wide impact. The total aggregated benefits across Scotland are also constrained by the realistic level of housebuilding starts and completions (independent of permissions granted). For example, as a known phenomenon there are approximately twice as many planning permissions granted annually in Scotland (and elsewhere in the UK) in comparison to annual housing starts. This means that not every application is converted to an end product of 'real' economic activity. The modelling is constrained to only apply benefits to the number of homes that actually can be expected to come forward in Scotland each year (based on analysis of recent trends).

- This analysis covers the housebuilding sector, separated into major and local segmentations. From sampling applications across Scotland, the average number of units on a small site is assumed 7, and the average number of units on a large site is 139.
- In practical terms for the housebuilder segmentation example, applying the time savings benefit to applicants means that Local Housing applications would be determined post digital-transformation in 8.9 weeks on average, down from 12.3 weeks at present. Major Housing applications would be determined in 25.3 weeks down from 35.1 weeks at present]

## Householder

The householder method largely follows the housebuilder method, assuming generally that conversions and extensions are being applied for rather than entire units. Specific changes in method and inputs from the housebuilder category are as follows:

Build and pre-application costs are derived by being proportionately smaller than the estimated build costs for the GIA of one house. From sampling householder applications across Scottish

Planning Authorities, applications are divided into sub-categories based on the size: very small, small, medium, large, based on square footage. This applies and adapts to a Scottish context Government data for average sizes of extensions and conversions<sup>22</sup>.

A proportion of applications received from the householder category are for non-economic enduses which are not determined to increase property value (e.g. driveways, decking, fences, etc.). Therefore, similarly to the housebuilder category, the overall scale of potential economic benefits is constrained by the number of applications which are assumed to have an economic end use (i.e. investment in additional floorspace which will increase both economic value and wellbeing).

Revenue is replaced in the model by realised value instead of sales. It is assumed that value is realised immediately (i.e. in one period) upon completion of the construction phase. Value is assumed as an uplift in property value based on sales prices per sq.m in a given local authority. Given not all householder planning applications are undertaken to increase sales value to make a profit on investment (at least in the short term), the increase in market value in this context can be considered a proxy for increased welfare benefit (i.e. the amount a market operator would pay for the welfare of that additional floorspace)

The revenue phase in the model therefore reflects the immediate recognition of value by the householder upon completion of the project.

Pre-planning is assumed to be a scaled degree shorter than that required for an entire unit (which itself is based on an assessment of known market data in the housebuilder analysis). The planning assessment phase timings, as with the housebuilder category, directly reflect Scottish Government planning statistics data.

The representative housebuilder is assumed to discount NPV according to the Treasury risk free rate (i.e. they do not require the same WACC as industry capital providers).

Again, as with housebuilder category, sales values and build costs (and consequently end economic outcomes) are weighted to reflect variance across LAs.

## **Business**

Economic benefits in the business category are calculated using a slightly different approach, given the wide variety of end economic uses applied for over the course of a year.

Using Scottish Government data for sectoral counts for businesses in each LA and GDV per sector in each LA, an economic value (in GDV terms) is derived per business in each sector and each LA. From sampling of the known number of applications applying for approval to undertake economic end-use activities - in both the 'business' and 'other' planning categories in each LA, each application is taken to be an application from a discrete business – which is given the average GDV output for a business in that sector.

The total economic value of all (average) businesses applying for planning permission over the course of a year is then estimated, and the average value per sector is also analysed.

<sup>&</sup>lt;sup>22</sup> See ONS, <u>https://www.ons.gov.uk/visualisations/dvc434/calculator/index.html</u>

These total sectoral values are then constrained by the average NPV uplift achieved by housebuilders (as a representative industry category) in the housebuilder analysis. This effectively assumes that businesses across all sectors could expect to achieve the same scale of NPV uplifts as those achieved by the housebuilding sector, and the housebuilding sector provides the micro foundations for the scale of uplift.

# **Appendix ii : Survey Questions**

Survey questions asked by Scottish Government to Local Authority planners across Scotland to determine the extent of potential time savings from digital transformation:

## **Missing Information - Validation**

We have information on the percentage of application submissions which are invalid in your authority.

Can you tell us how much time it typically takes to follow up on missing information or matching pieces of information received separately (including fees) to validate applications?

## **Missing Information - Validation**

How much time taken is taken to request any additional information required for an application to be assessed after it has been validated?

## **Post-submission enquiries**

How much time is spent answering enquiries (excluding complaints) on application progress by the applicant e.g. Householder and/or Architect, or Major Developer before being notified of the decision?

This would include things such as:

- "what's happening to my application?"
- "why haven't I heard?"
- "when will I get a decision?"

## Planning permission enquiries

How much time is spent answering enquiries on whether planning permission is required or not for simple householder applications (pre-submission)?

This would include building a shed, House extension, attic conversion or erecting a sign?

## **Collation and Analysis of Comments**

How much time is spent collating, analysing, and responding to objections/representations made on Planning Applications before assessment?

## **Dealing with Complaints**

How much time is spent dealing with formal complaints from Objectors, Applicants, or Community Councils?

These complaints may include things like:

Objectors

• Not having their views taken into account

- Not having long enough to respond
- Not being notified
- Materials not being available to review

## Applicants

- Lack of progress
- Receiving conflicting information
- Taking too much account of objections
- Objections taken into account after the window has expired

Community Councils

- Receiving inadequate information from Developers
- Not following due process
- Disagreeing with judgement/decision

## **Sourcing Data for Assessment**

How much time is spent sourcing data to inform the assessment and decision making (excluding consultations)?

This could include things such as the site history, pipeline exclusion zones, tree preservation orders and other constraints etc.

## Consultations

How much time is spent following up on consultation responses to make sure either the response is understood, the correct information has been provided, or to request further information?

## **General Process Enquiries**

How much time is spent explaining the Planning Application process, including:

- Proposals
- How to object/get involved
- When meetings are held, and where
- The overall process (including aspects specific to the your authority)

This relates to neighbours, objectors and citizens in general unfamiliar with the planning application process, and also to agents and other professionals who perhaps haven't dealt with your Planning Authority before, or need reminding?

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