

Herefordshire 2030



Interim Report

Draft 0.4

Contents

- Introduction and Summary
- Stimulating key sectors in the economy
- Tackling inequity in Herefordshire
- Reducing our environmental footprint
- Next Steps

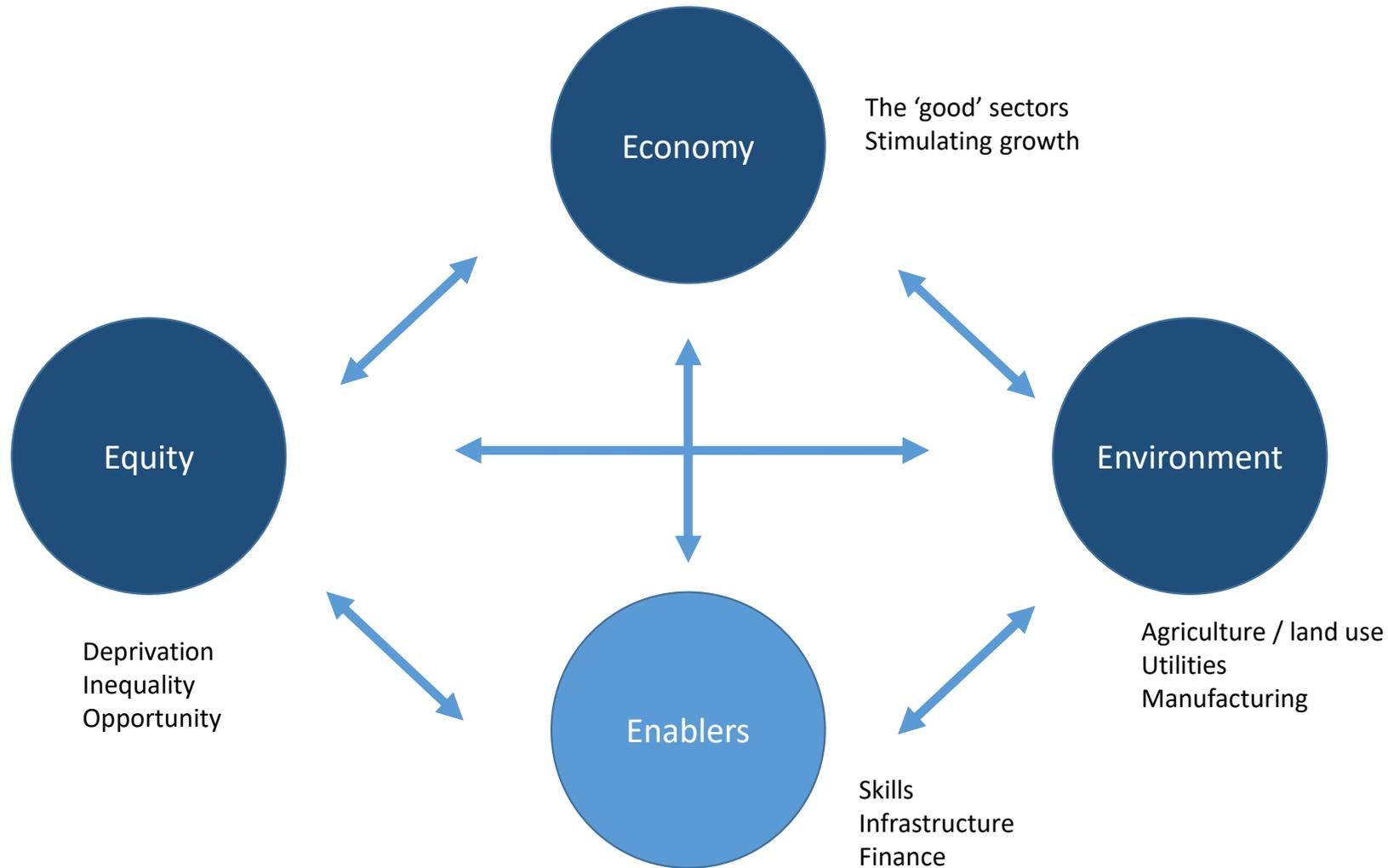


Introduction and Summary



- Since the Global Financial Crisis, economic growth in the UK has been subdued and inequality has widened – and this is also true of Herefordshire.
- Rather than wait for central government policy to change, we have decided to explore what Herefordshire (the business community, the Council, the educational community the healthcare community, et cetera) could do to make the county more prosperous, fairer and greener – what we have called ‘good growth’. In doing this we have leant heavily on the excellent work published in recent years by variety of different organisations in the public, private and third sectors
- This report sets out our preliminary conclusions on the key areas for improvement – the next phase of our work will be to develop, with the wider community, practical solutions in each area.
- The three areas of suggested focus are:
 - Stimulating key sectors of the **economy**
 - tackling in **equity** in Herefordshire
 - reducing our **environmental** footprint.

The three areas of focus – along with enabling policies and projects – will lead us to a pragmatic set of solutions

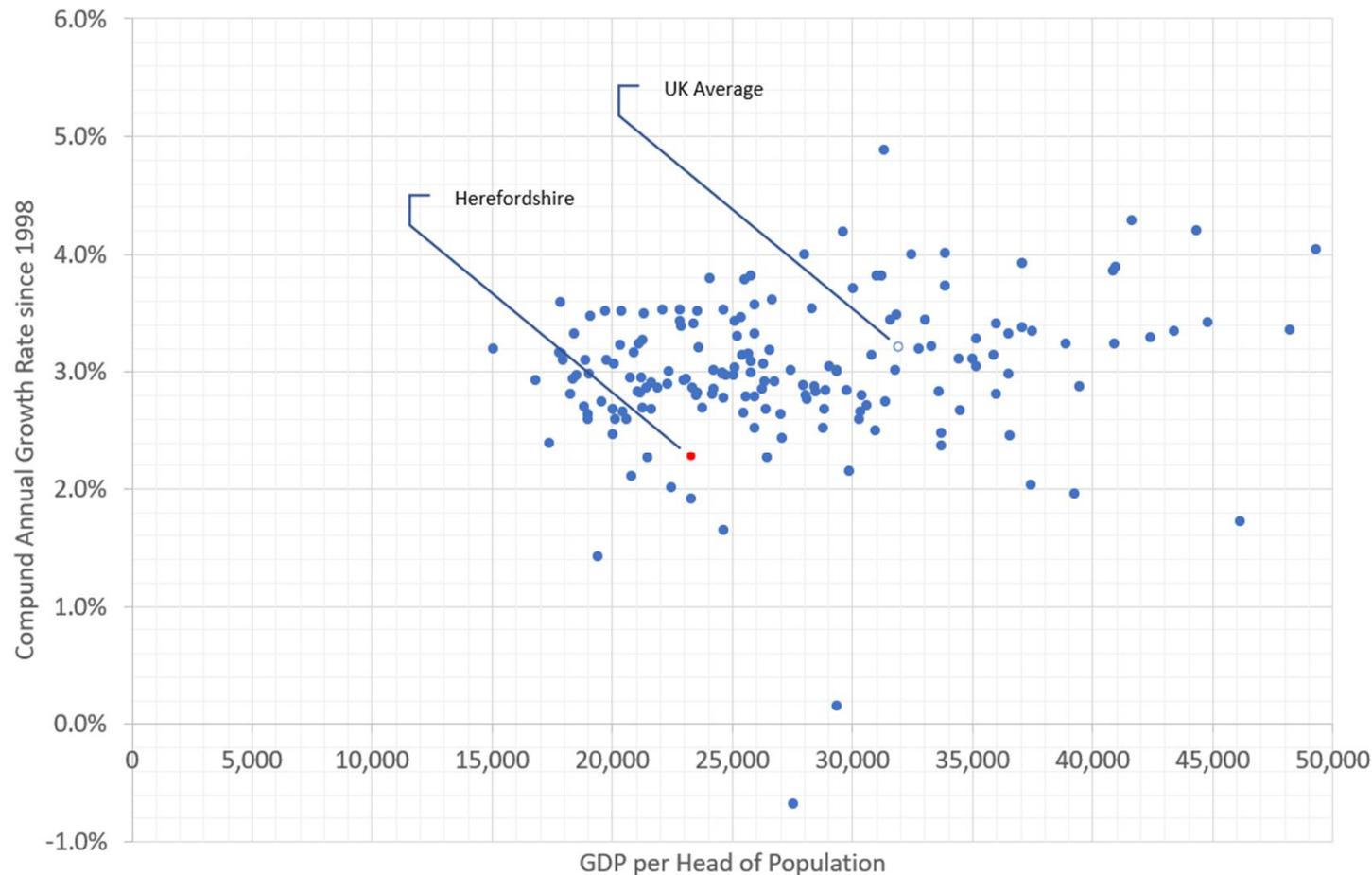


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Herefordshire shows lower GDP *per capita* than most of the UK and it has been growing more slowly

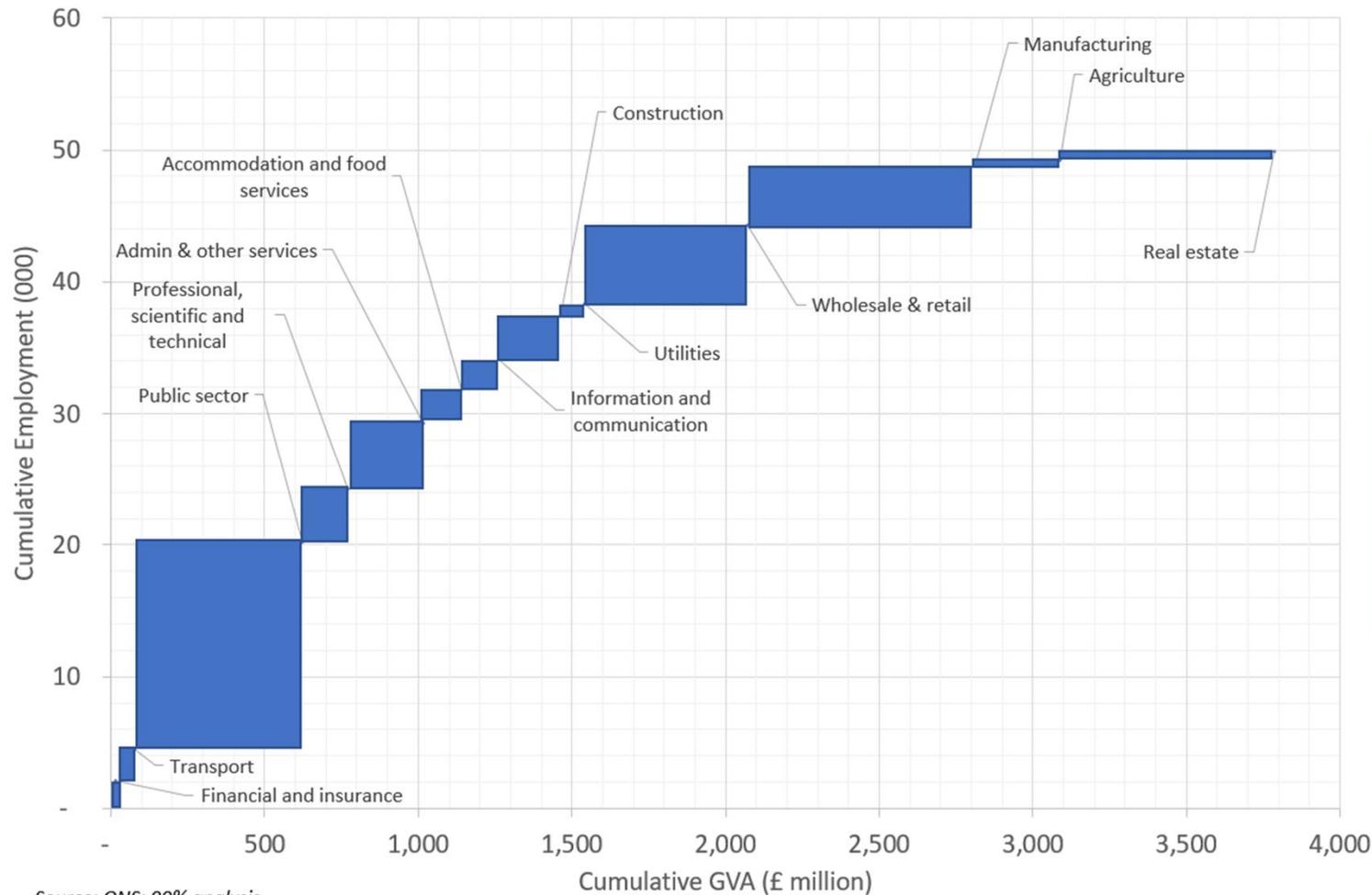


Source: ONS; 99% analysis

Hypothesis:

We need to stimulate economic growth if we are not to fall further behind.

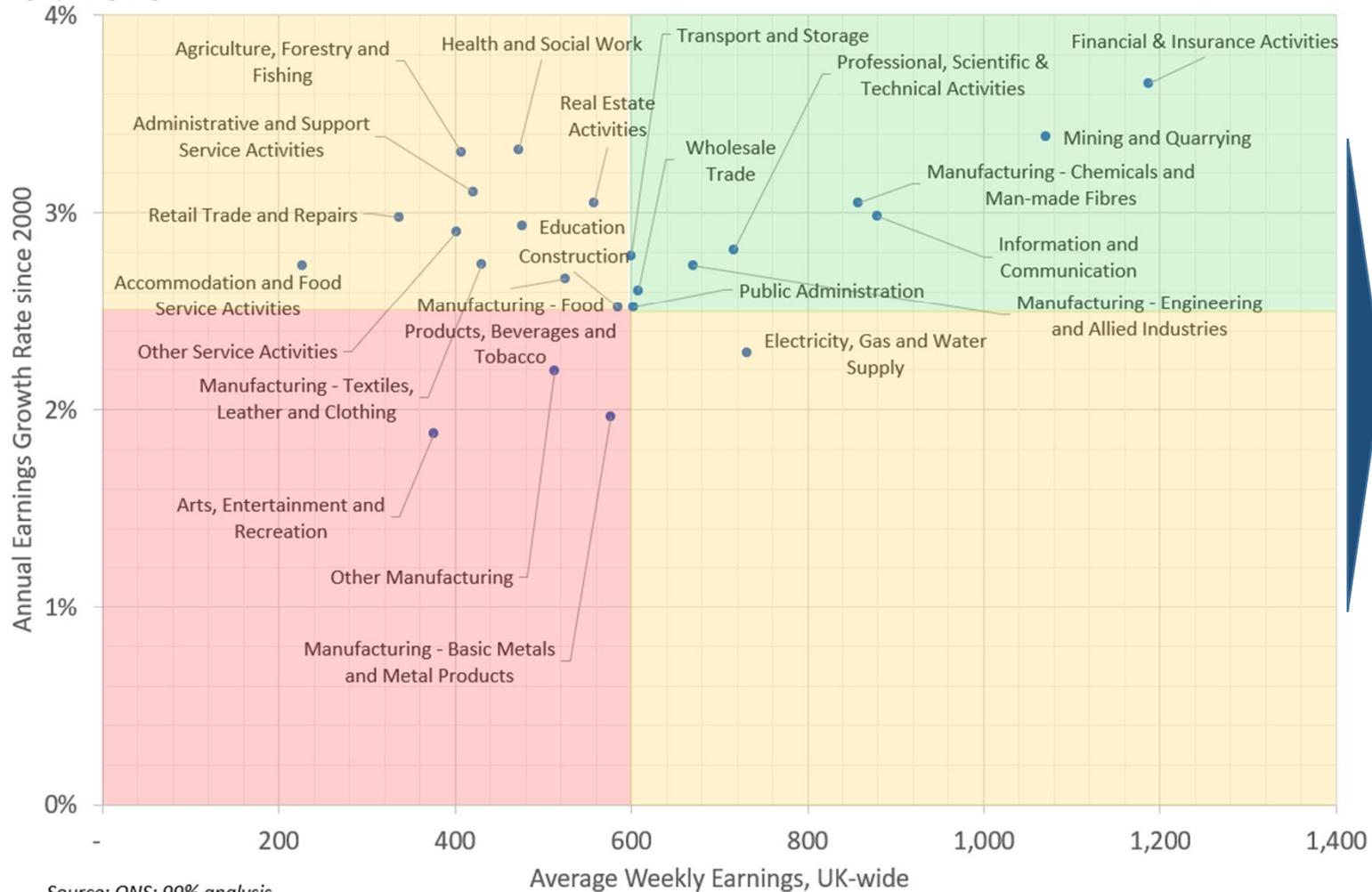
Herefordshire's GDP is around £3.8 billion – the largest sectors are Public Sector, Manufacturing, and Real Estate



Observation:
 Employment in Herefordshire is dominated by Manufacturing, Public Sector, Wholesale & Retail and other services.

Source: ONS; 99% analysis

Some sectors offer better prospects for wages and growth than others

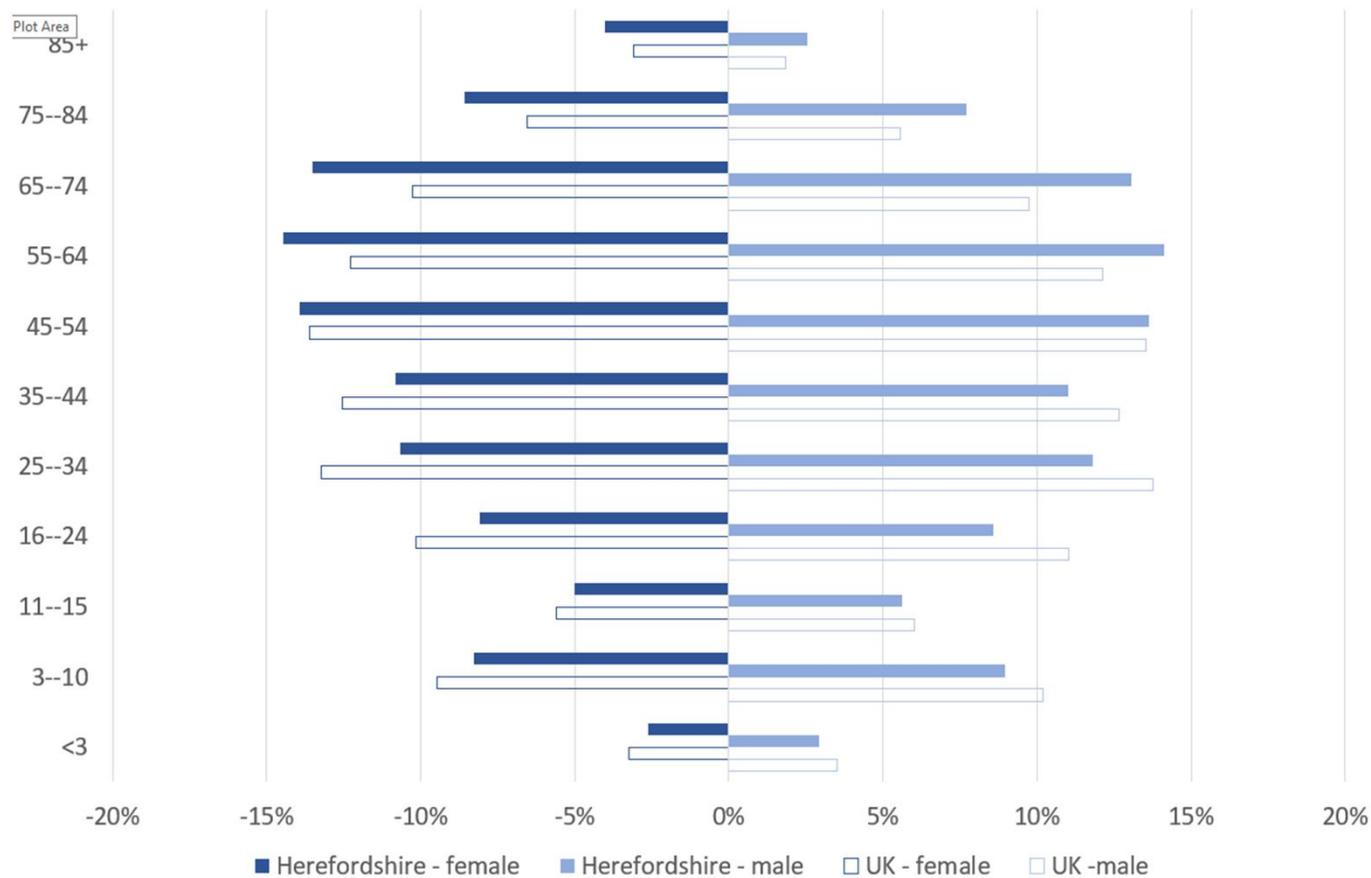


Hypothesis:

Ideally, we would both grow the high productivity, high wage sectors and provide growth for the less-skilled.

Source: ONS; 99% analysis

Herefordshire has an unusual population pyramid with a wide gap vs UK between 16-44 – core working age



Hypothesis:

In order to drive growth we need to retain and attract more working-age people.

Source: ONS; 90% analysis



Improvements in physical infrastructure may be key enablers, along with finance and 'softer' initiatives

The Council Plan and documents produced in recent years by other respected organisations have pointed at the infrastructure issues that affect economic activity adversely:

- **High-speed broadband**, particularly in rural communities (which may also create a demand for more resilient connections to the power grid)
- **Protection from floods**
- **Fast, reliable and regular rail connections** with the West Midlands, London and other conurbations
- **Public transport**, which is of particular concern to those in the areas of deprivation
- **Road access** to and around the city of Hereford
- **Safe cycle routes**

Hypothesis:

Investment in physical infrastructure needs to be complemented by a variety of other initiatives

These all need investment along with initiatives attracting and retaining young people.

The county needs a range of 'softer' interventions if the growth challenge is to be met



Herefordshire could consider a coherent programme of softer 'supply side' projects and initiatives to attract and retain younger people, adopting lessons learnt elsewhere:

- **Training and skills development** in the target sectors, some of which will need to cut across traditional professional/trade boundaries. (A particular example is the need for plumbers and electricians to learn one another's trades in order to facilitate the roll-out of 'green' heating systems)
- Addressing the **mix and availability of housing**, to address the needs of families, shared households and single people, especially in and around Hereford
- **Re-energising high streets** to enable independent shops, cafes and bars to become established and flourish
- Providing **support and amenities** to encourage growth of arts, sport and other cultural and social offerings



Hypothesis:

These initiatives are essential if the age imbalance is to be addressed

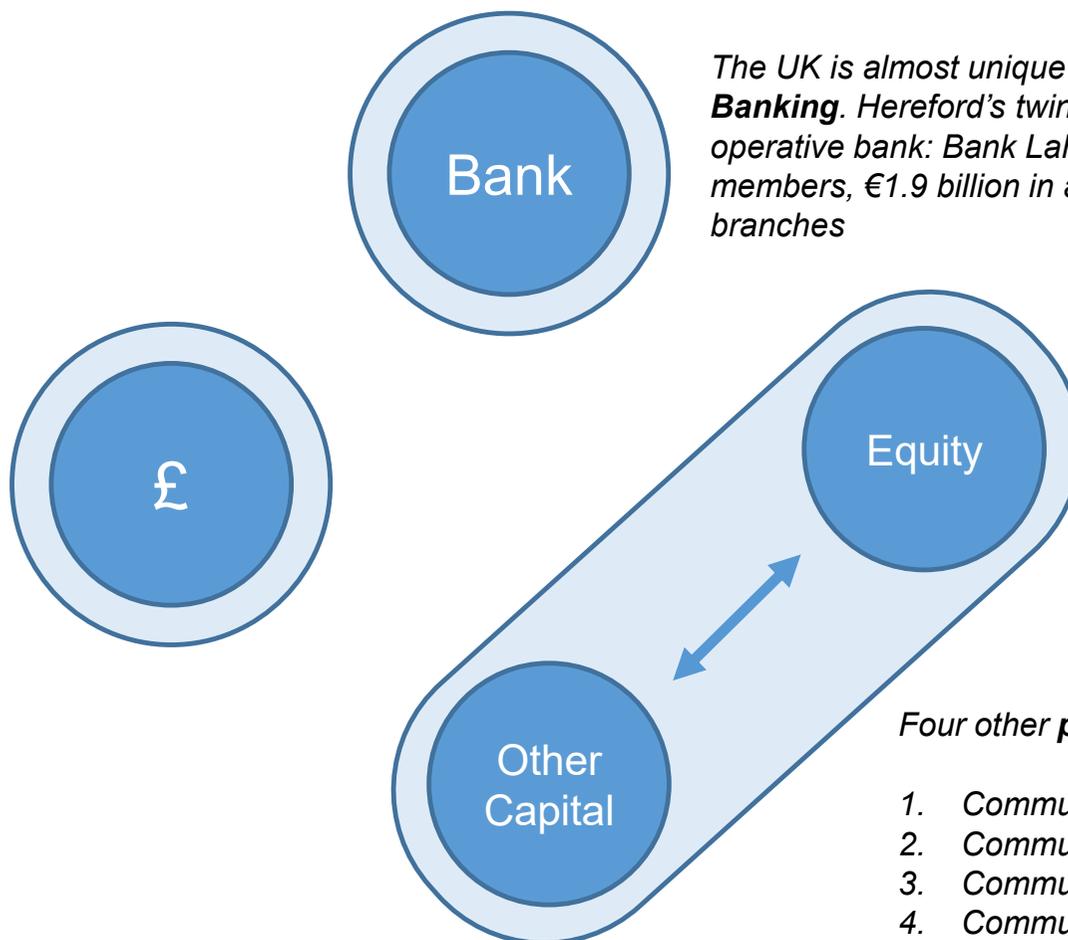


There are several types of innovative finance we could consider as enablers of change

Four types of currency innovation:

1. Time Banks
2. Local currencies
3. Mutual Credit
4. Reward points

Local currency could have synergy with the Preston Model.



The UK is almost unique in not having **Community Banking**. Hereford's twin town has a regional co-operative bank: Bank Lahn-Dill with 46,000 members, €1.9 billion in assets, 376 staff and 30 branches

Hypothesis:

We should explore whether these can help Herefordshire

Four other proven mechanisms:

1. Community Municipal Bonds
2. Community Shares
3. Community Development Finance Institutions
4. Community Investment Funds

In its Local Industrial Strategy published in December 2019, the Marches LEP has identified three sectors as providing 'major growth opportunities'



The growth sectors that the LEP identifies are:

- High-tech manufacturing and engineering with a particular focus on 'green' technologies
- 'Agri-tech'
- Cyber security and resilience

Whilst these appear to be attractive sectors which complement the skills base and businesses of the Herefordshire, some important questions still need to be resolved. These include:

- What would it take to stimulate growth in these sectors (skills, money, infrastructure, housing, etc)?
- How many jobs are likely to be created through investment in these sectors and at what level in terms of skills and earnings?
- Will increased activity in these sectors help or hinder the county achieving its aims to be greener?
- Will growth in these sectors help those in the deprived parts of the county find meaningful work and the opportunity to develop sustainable skills?
- Who will be accountable for delivering the programme of investment and other support needed? (And all that implies in terms of objectives, timescales and funding)?

There are other sectors which might offer employment opportunities for those in the county with lower skills



The three sectors identified in the LEP's Local Industrial Strategy, whilst producing increased GDP, might improve average wages but exacerbate the gap between those with higher skills and qualifications and those without. It is therefore worth investigating some other sectors, such as:

- Tourism / Visitor Economy
- Environmental projects, such as forestry and flood prevention
- Construction, especially that focused on upgrading the quality or environmental footprint of the existing building stock

Slide(s) showing impact of stimulating key sectors

- Impact on growth in economy
- Impact on wages
- Impact on the most deprived in Herefordshire
- Trade-offs between the three Es

Work In Progress

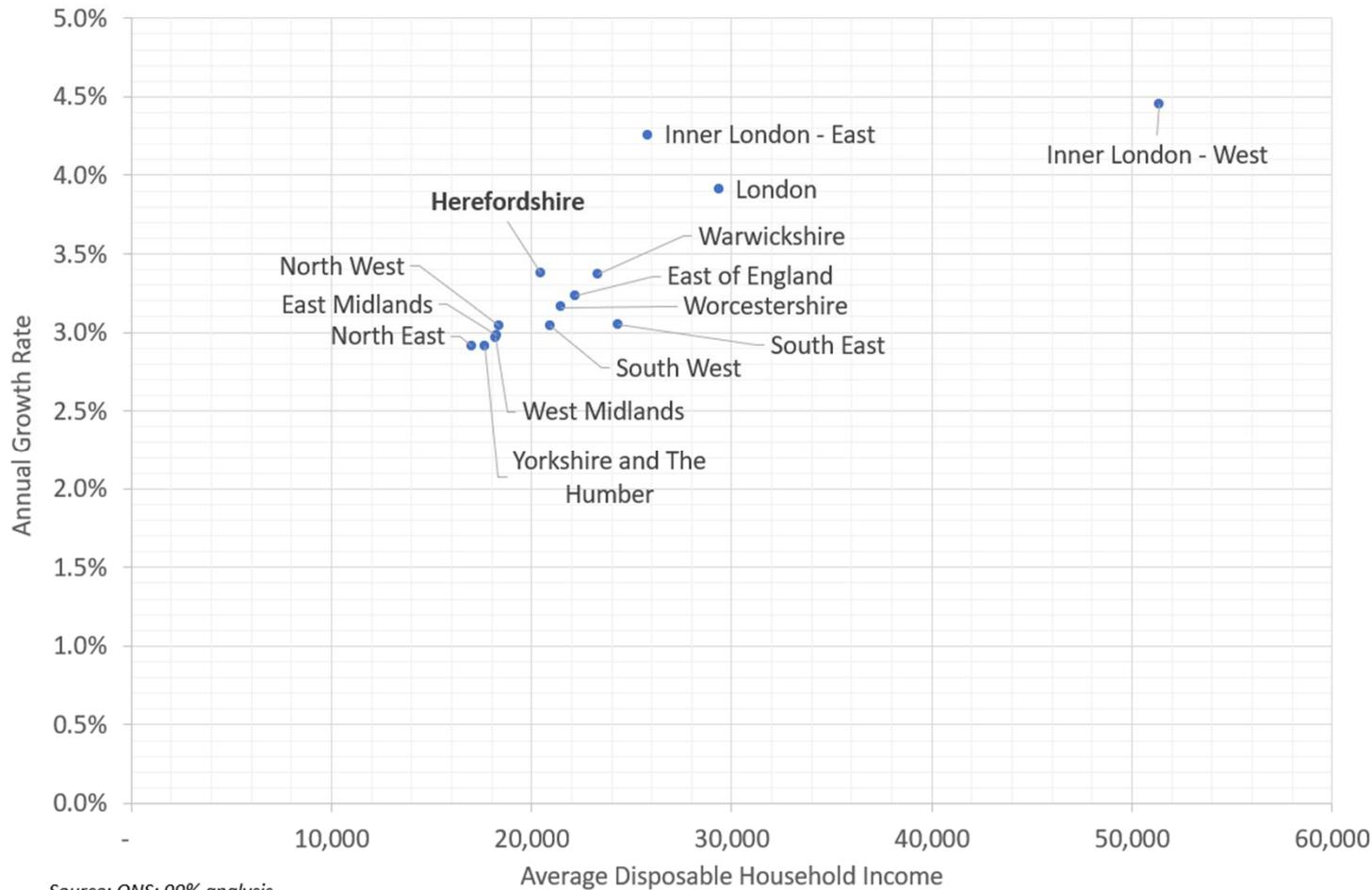


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Herefordshire is far from the most deprived region, but is poorer than its neighbours

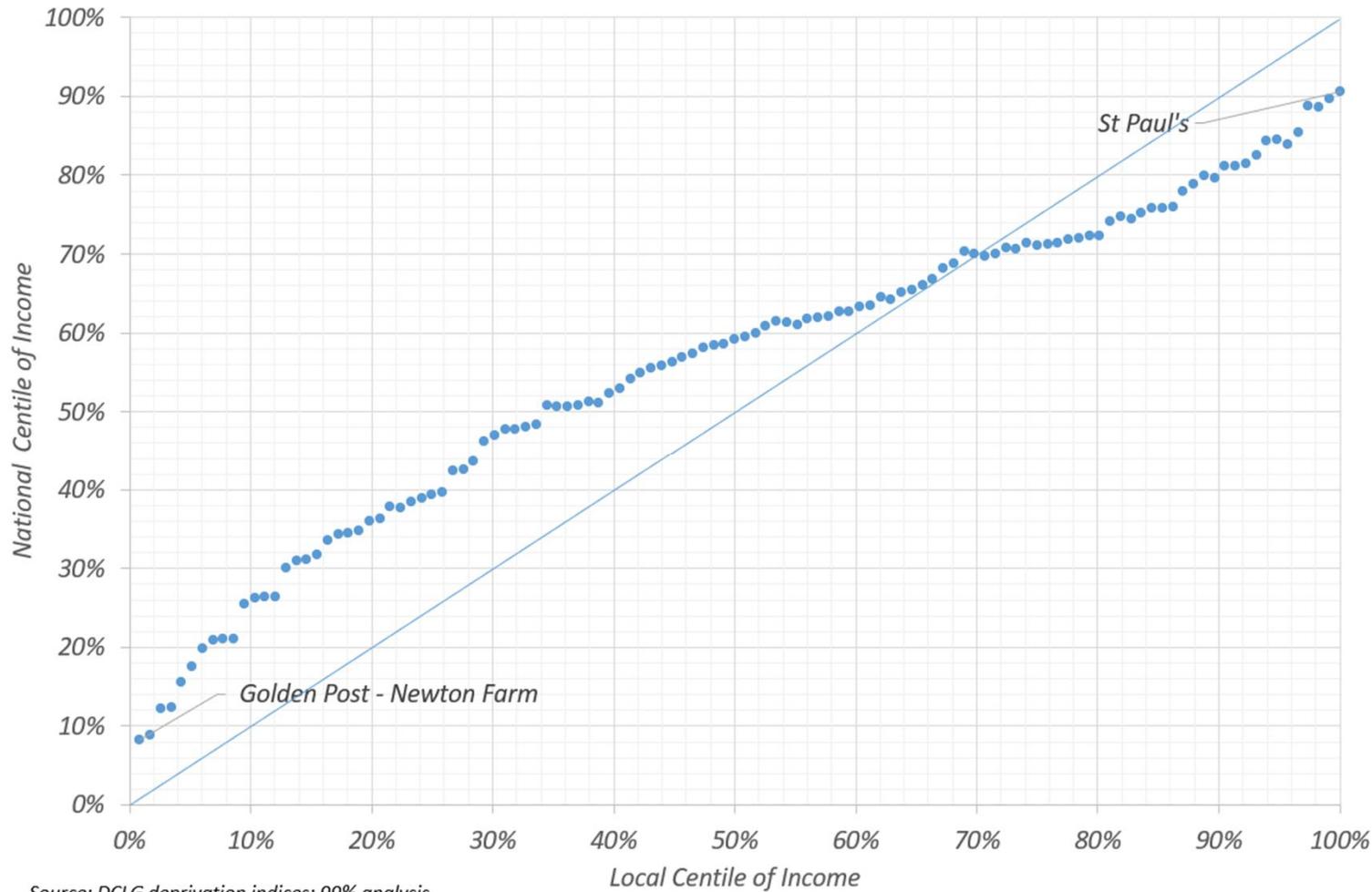


Hypothesis:

We may not be the worst in terms of deprivation – but we should improve.

Source: ONS; 99% analysis

Herefordshire has fewer very rich and fewer very poor areas than the UK as a whole



Source: DCLG deprivation indices; 99% analysis

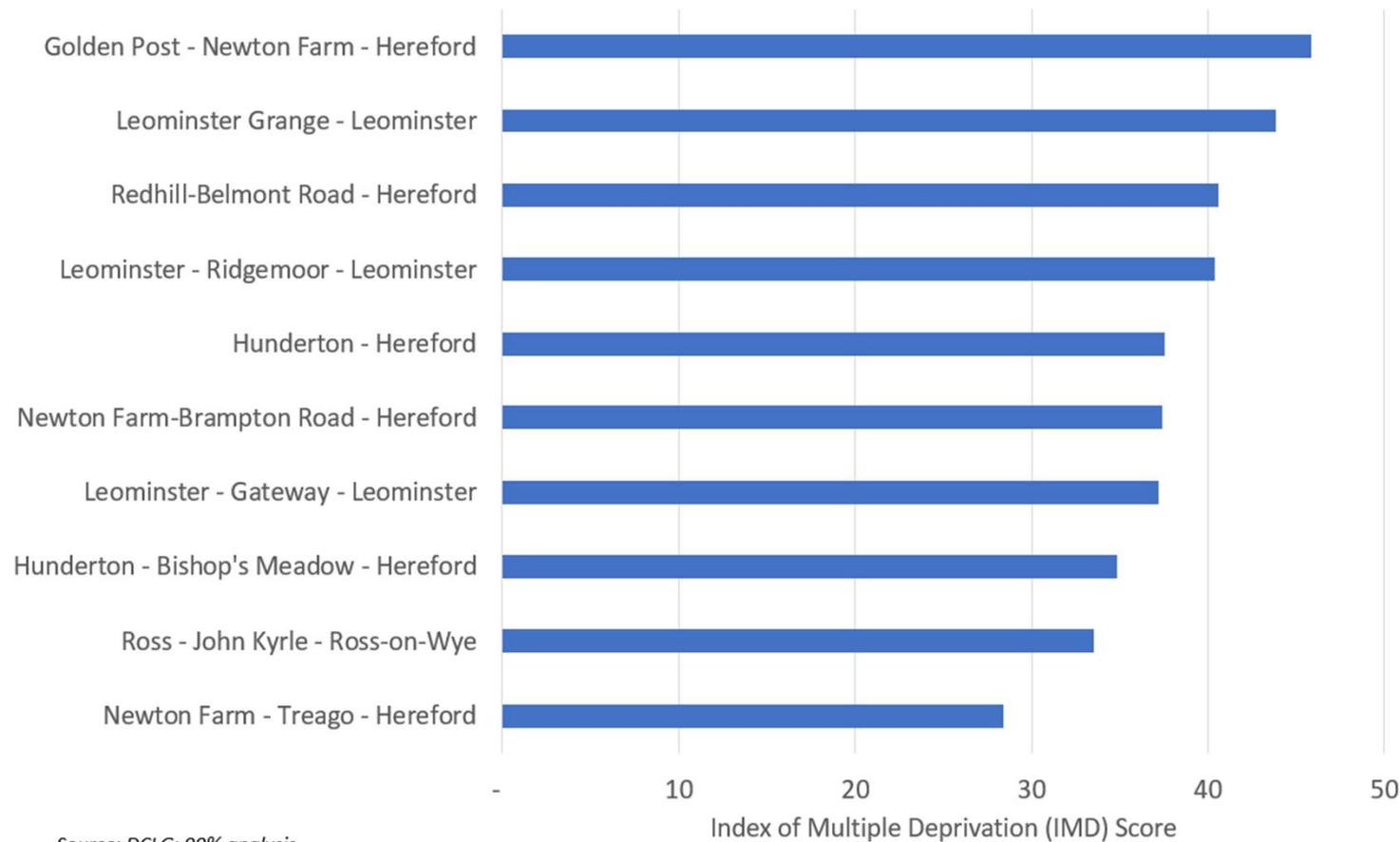
Observation:

The richest ward in Herefordshire would just make the top 10% nationally; and the poorest would just make the bottom 10%.

In Herefordshire, deprivation is concentrated in urban areas



The 10 most Deprived Areas in Herefordshire

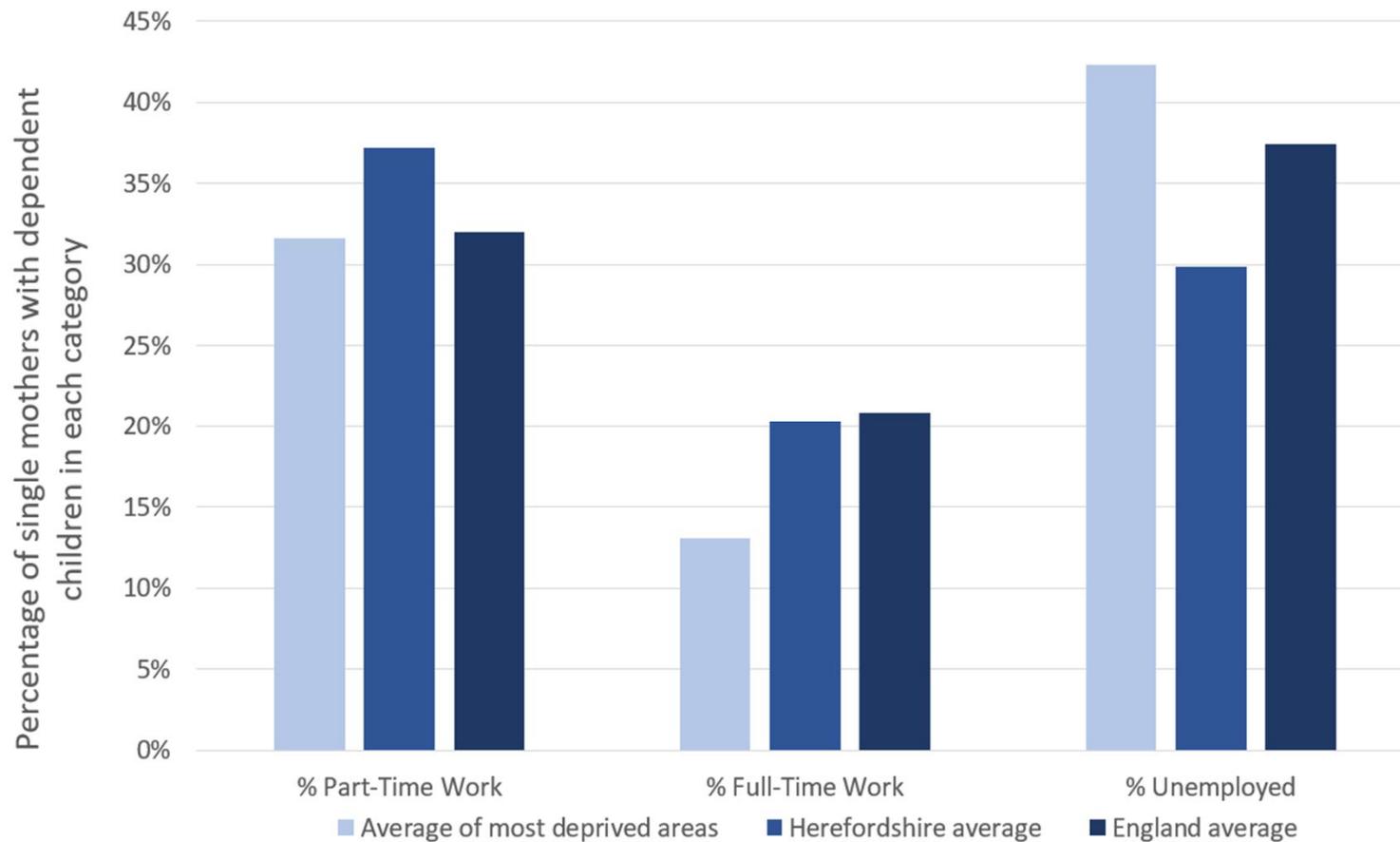


Hypothesis:

Although there is serious deprivation in rural areas, the concentration is in Hereford and Leominster and it may be easier to tackle these areas.

Source: DCLG; 99% analysis

The pattern of work is quite different in the most deprived areas

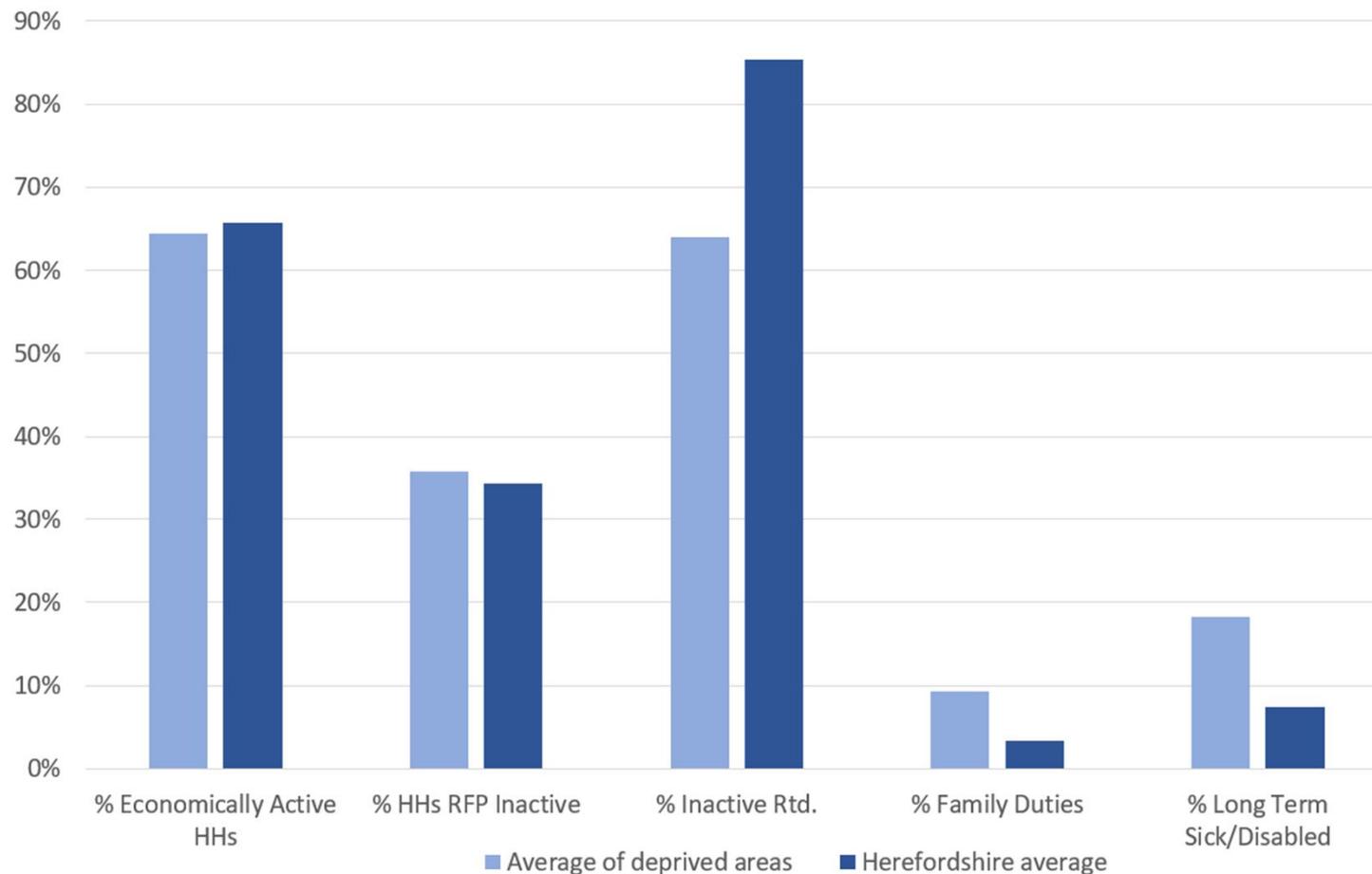


Hypothesis:

Helping people into full-time work would transform their economic prospects.

Source: ONS 2011 Census; 99% analysis

In the deprived areas, economic inactivity is driven much more by caring and sickness than by age



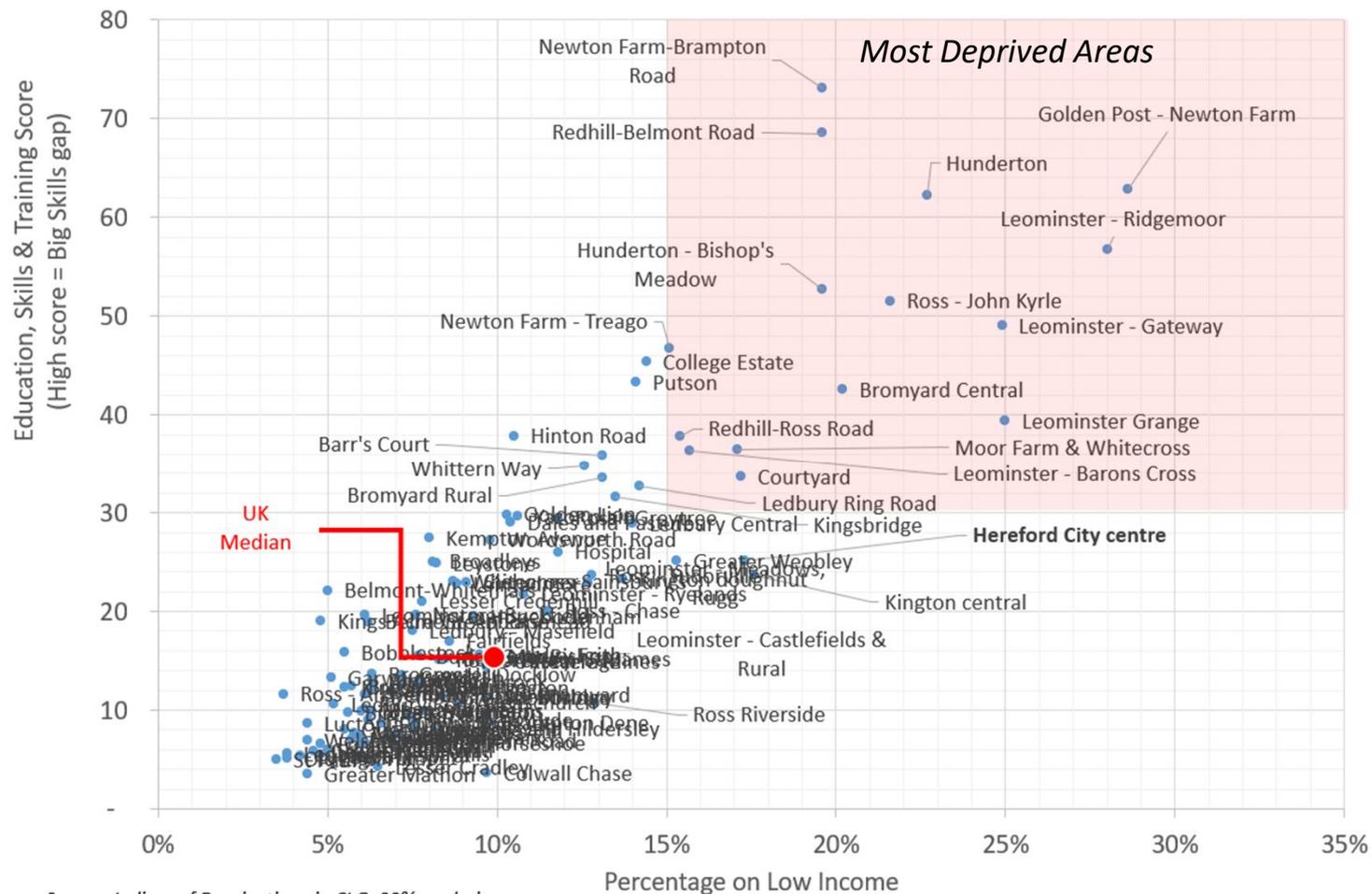
Hypothesis:

If we could support carers and young mothers into the workplace, we could see a significant improvement.

Source: ONS 2011 Census; 99% analysis



There is a clear correlation between low skills and low income



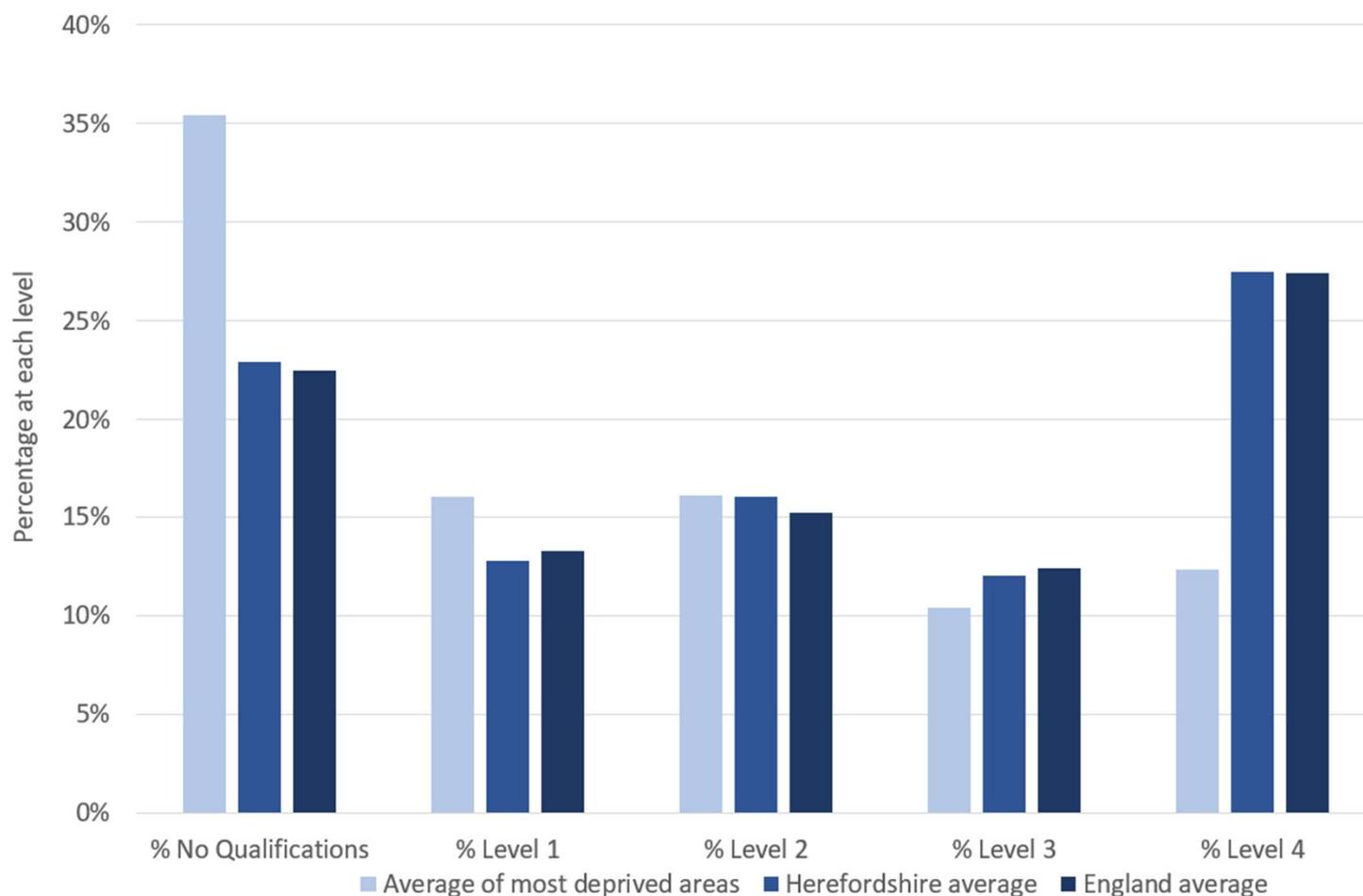
Hypothesis:

As well as short-term support, we need to tackle the skills and opportunities issues.

Source: Indices of Deprivation via CLG; 99% analysis



Educational gaps are stark in the most deprived areas



Hypothesis:

The skills gap shows clearly at the top and bottom levels.

Source: ONS 2011 Census; 99% analysis

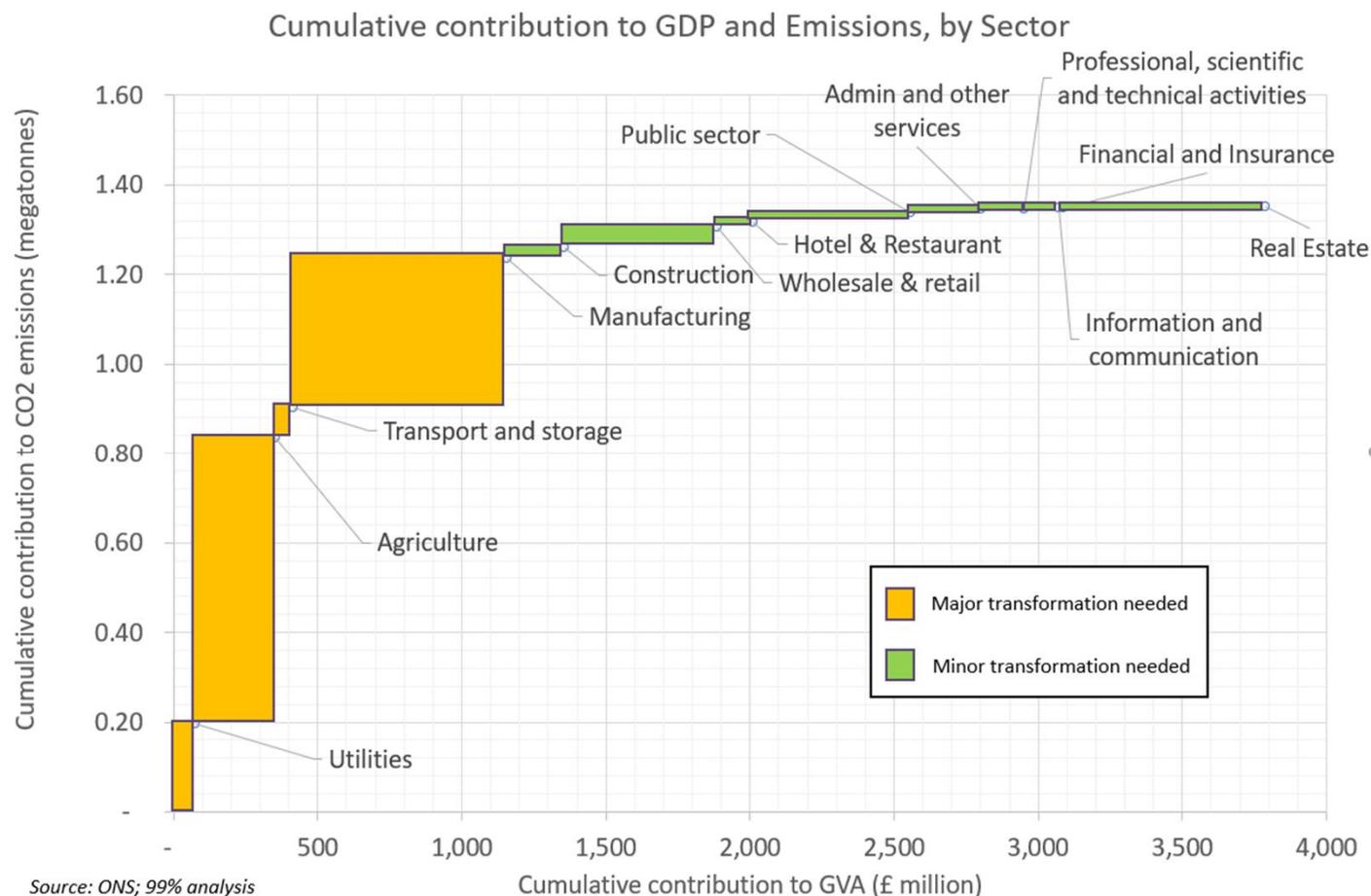
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Agriculture generates the highest CO₂-equivalent emissions



Hypothesis:

We should investigate how we can reduce agricultural emissions without reducing output.

Food is essential, but we have choices about how we eat



Diet

The Lancet, in January 2019, published a [proposal](#) for how we could feed 10 billion people globally, with better health outcomes, on the agricultural land area we have now (ie with no further deforestation). Broadly speaking, the diet proposes reducing red meat by 90%, chicken & fish by 50%, while maintaining dairy intake and increasing our intake of cereals, pulses, fruit & vegetables

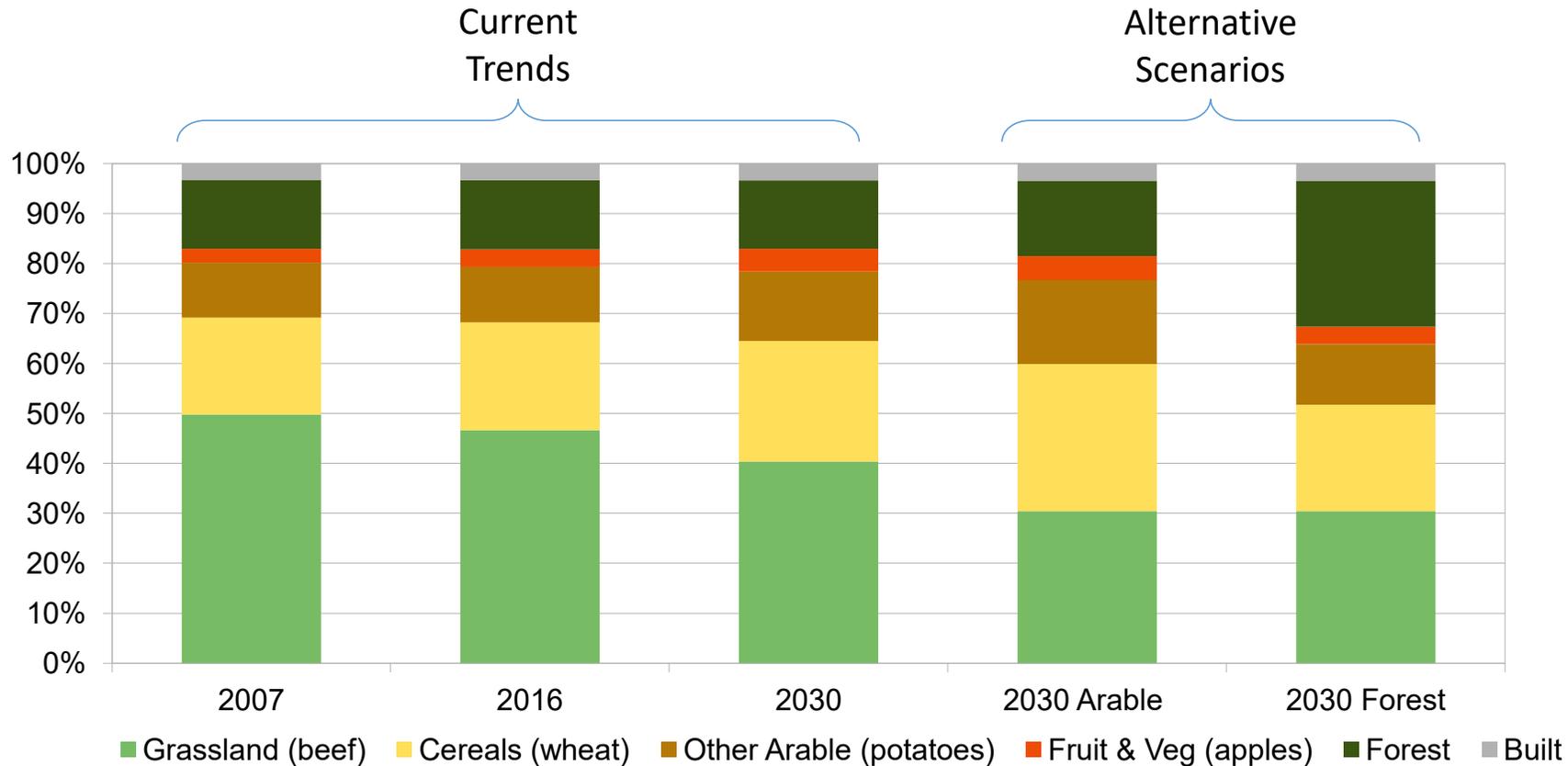
Food waste

Currently in the UK, 24% of the food produced never gets eaten. 16% is in the food supply chain (the selection of produce - the 'wonky carrot' story - handling, transport, packaging & storage), and a further 9% of food is bought but ends up going straight from the fridge to the bin due to over-purchasing and poor storage at home

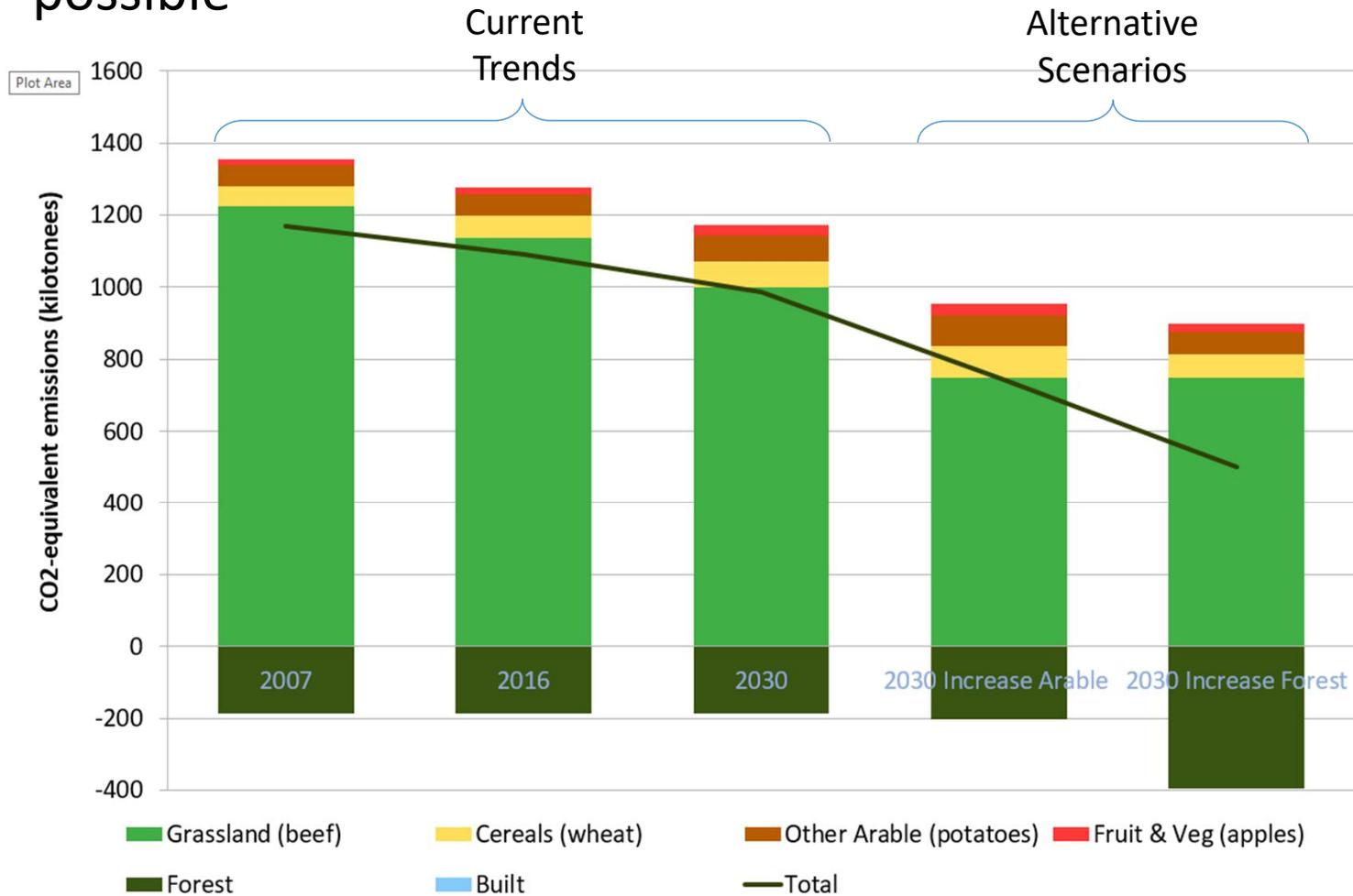
Hypothesis:

We should investigate the possibility of culture change on both dimensions, as well as the economic impact of such a shift

If we could make changes to diet and reduce waste, land use in Hereford could change significantly, with a large increase in forestry possible



Up to 50% reductions in CO2 equivalent emissions could be possible



Source: Lancet, DEFRA; 99% analysis

A similar analysis is need for the Manufacturing sector



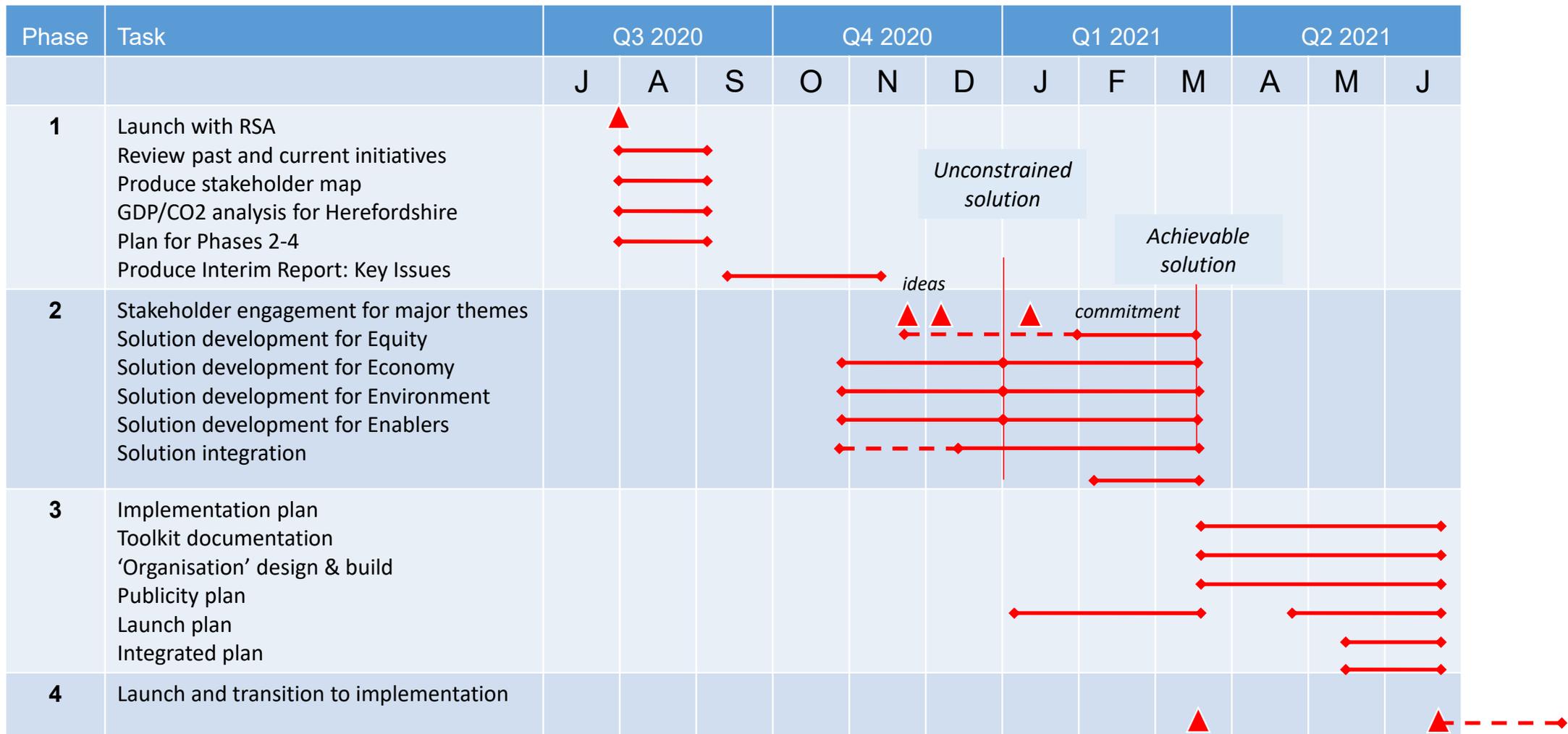
Work In Progress

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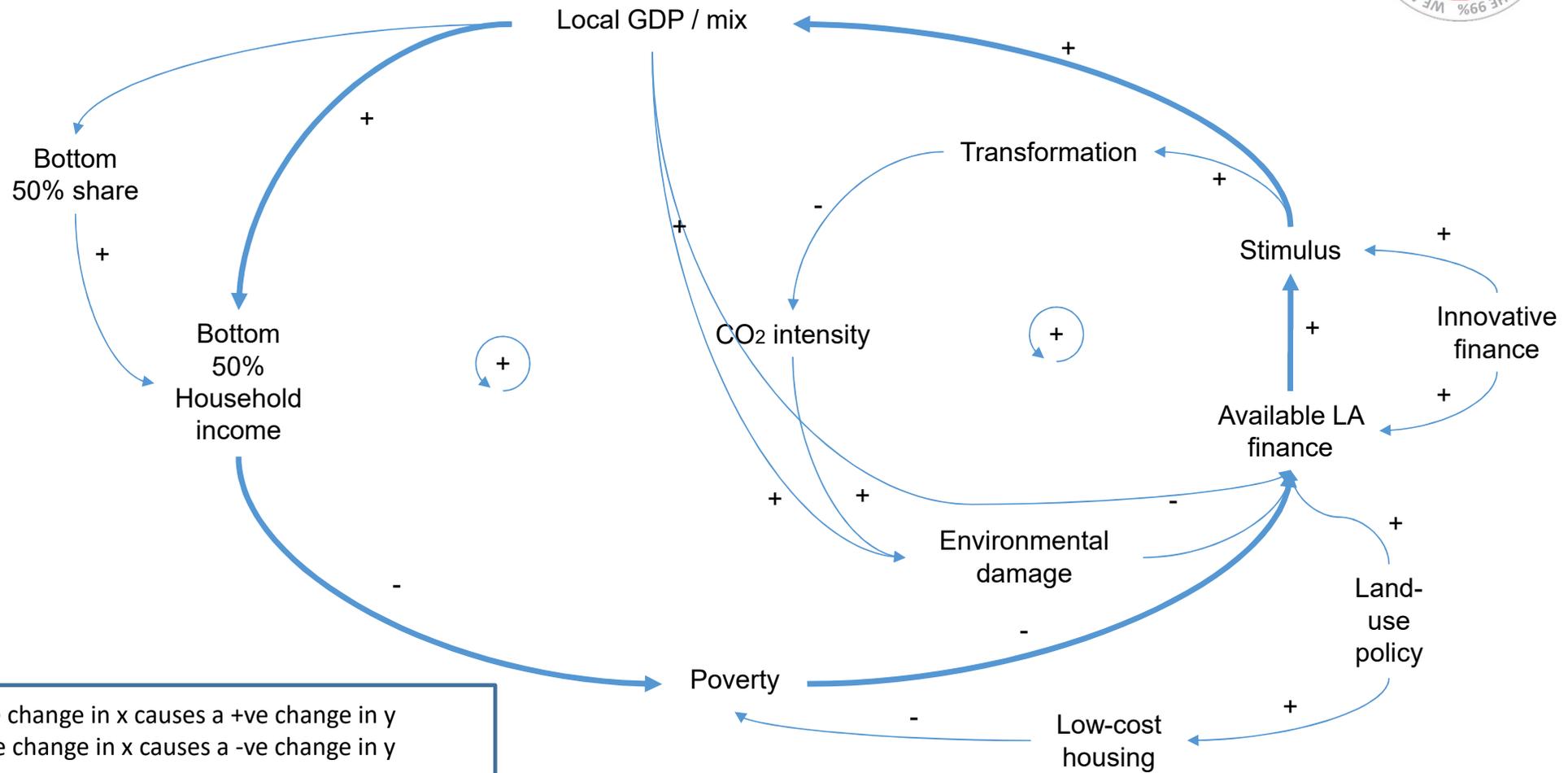
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We now want to start solution-finding ... with your help



We will need to apply systems thinking to integrate the solutions



$x \xrightarrow{+} y$: a +ve change in x causes a +ve change in y
 $x \xrightarrow{-} y$: a +ve change in x causes a -ve change in y

Appendices

List under the headings: Economy; Equity; Environment

JEREMY



Appendix 1 - Economy

- Appendix 1a - Case studies of comparator counties/areas
- Appendix 1b-???

JEREMY

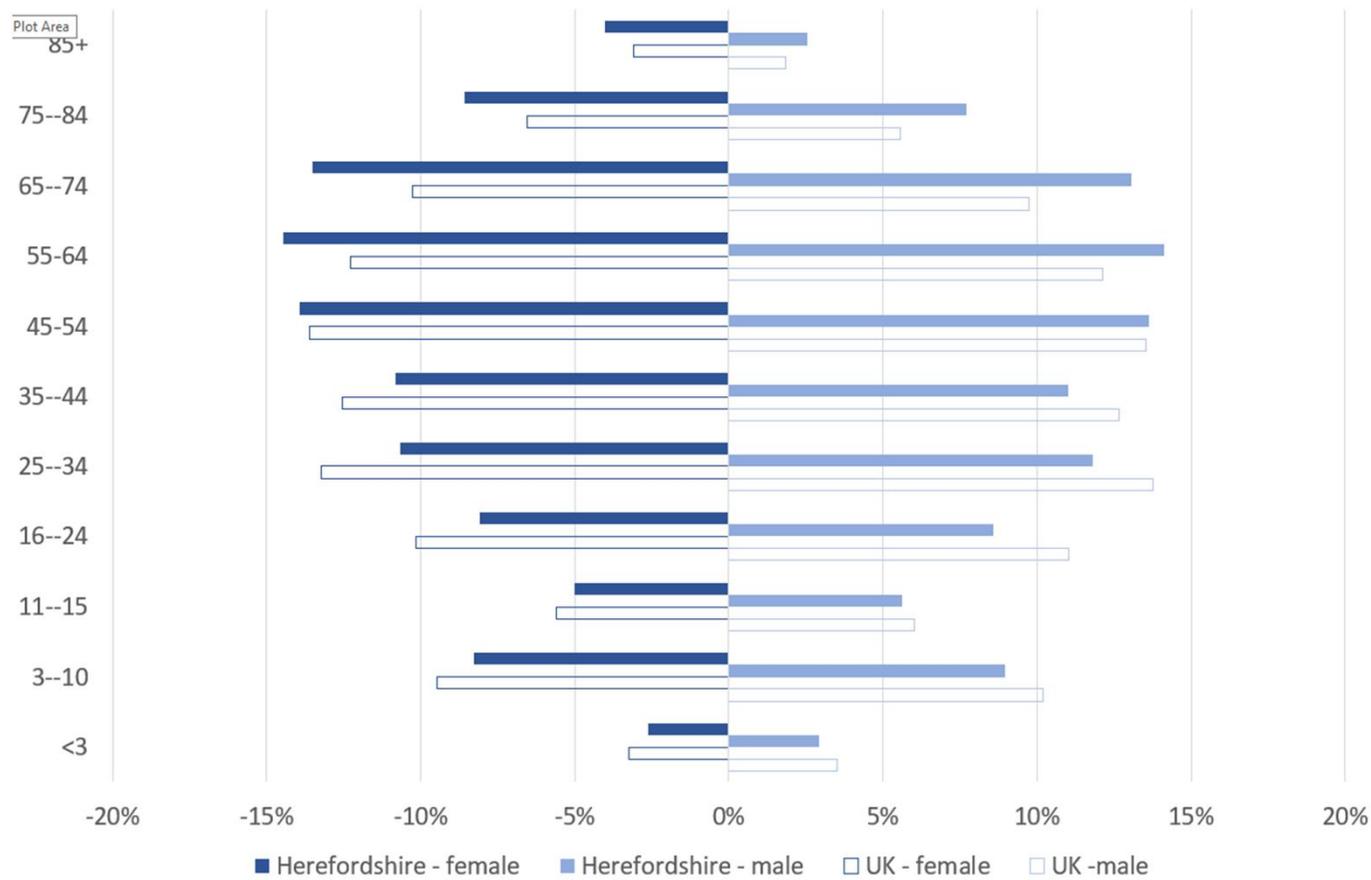




Appendix 2 - Equity

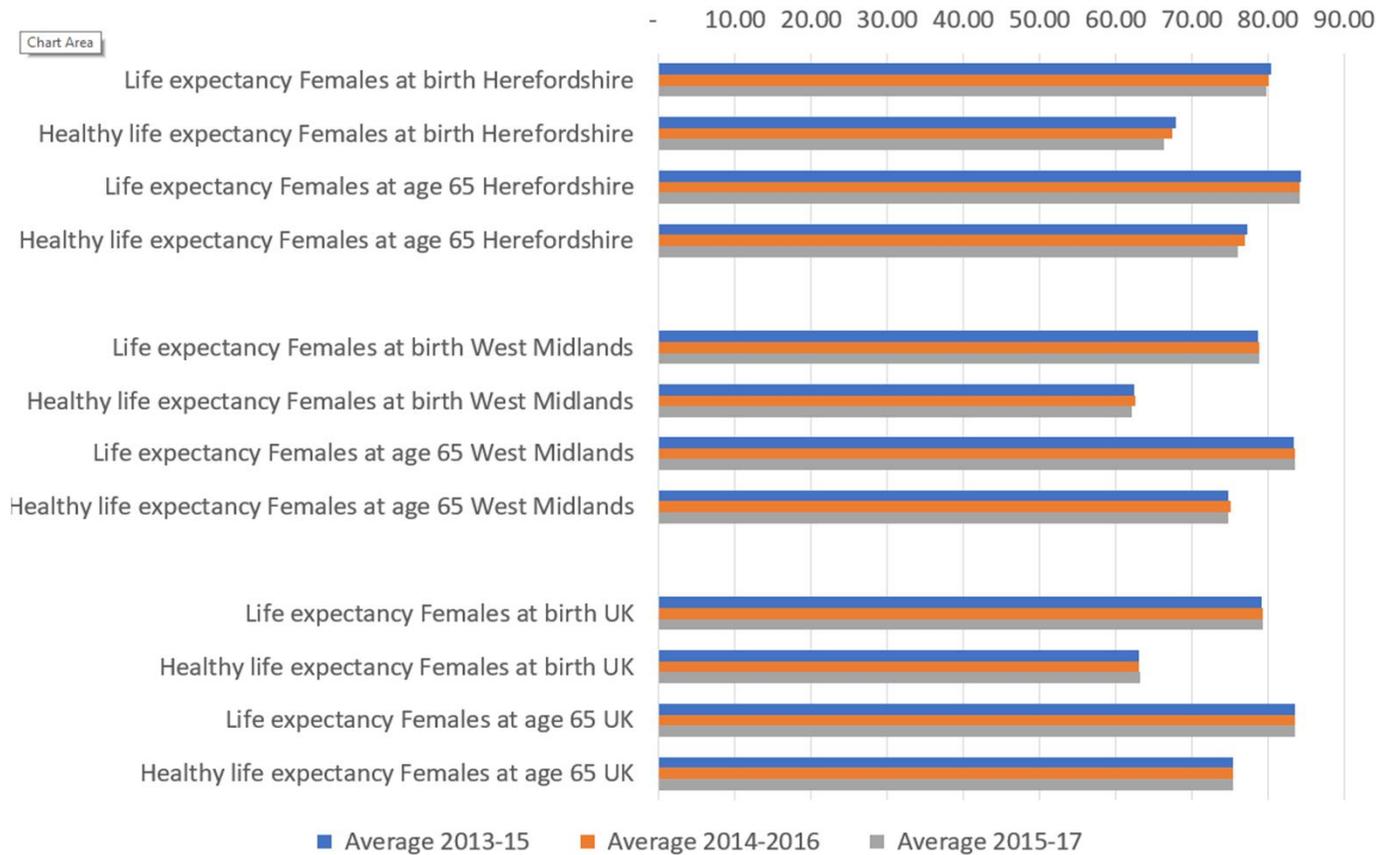
- Appendix 2a - Herefordshire has an unusual population pyramid with a wide gap vs UK between 16-44 – core working age
- Appendix 2b - For women life expectancy is good in Herefordshire – but it is declining
- Appendix 2c - And for men it is the same story
- Appendix 2d - A small but not negligible group of households have no member with English as the main language
- Appendix 2e - Herefordshire has ‘white deprivation’

Herefordshire has an unusual population pyramid with a wide gap vs UK between 16-44 – core working age



Source: ONS; 90% analysis

For women life expectancy is good in Herefordshire – but it is declining

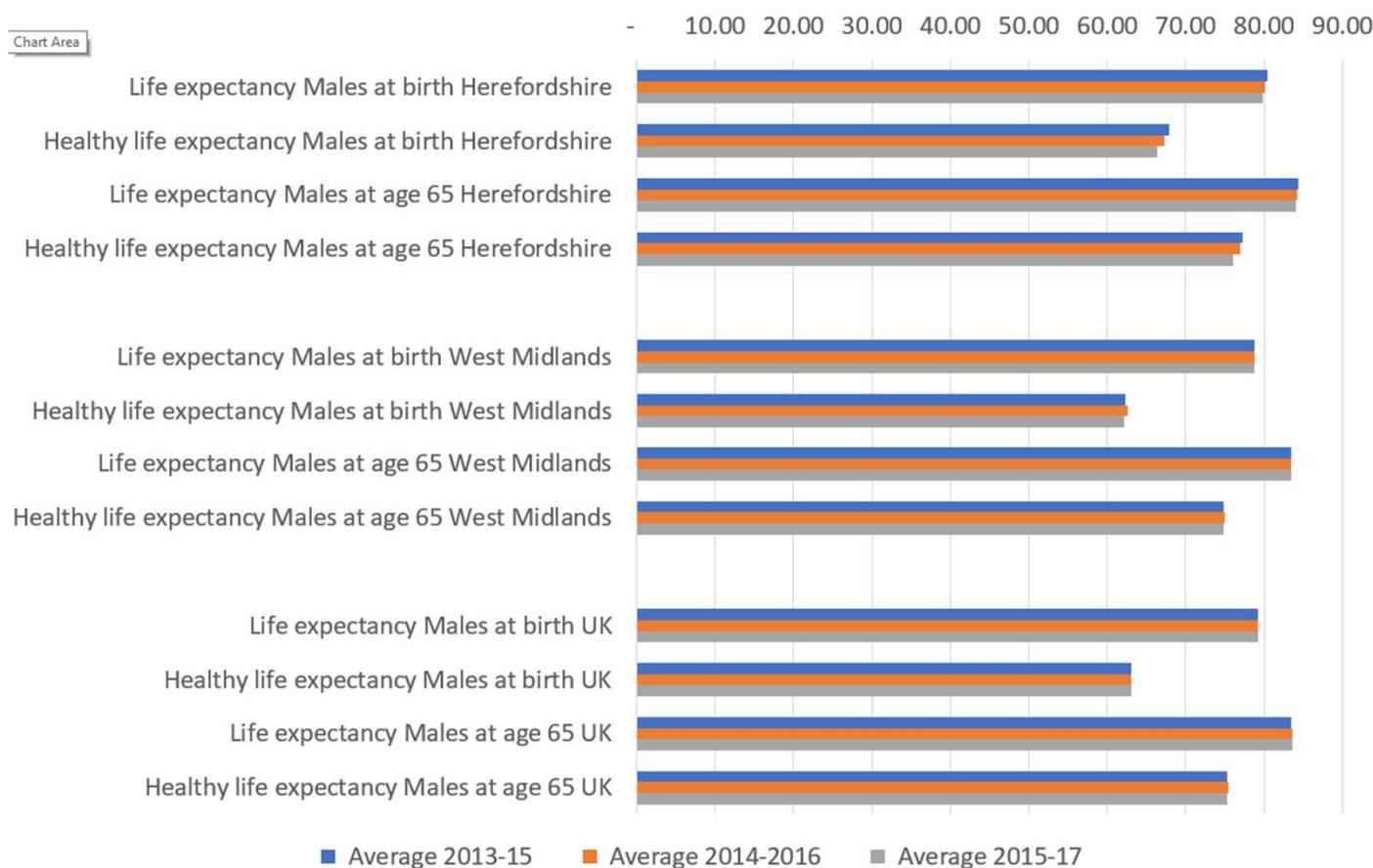


Note: a 3-year decline does not imply a long-term trend

Source: ONS; 90% analysis



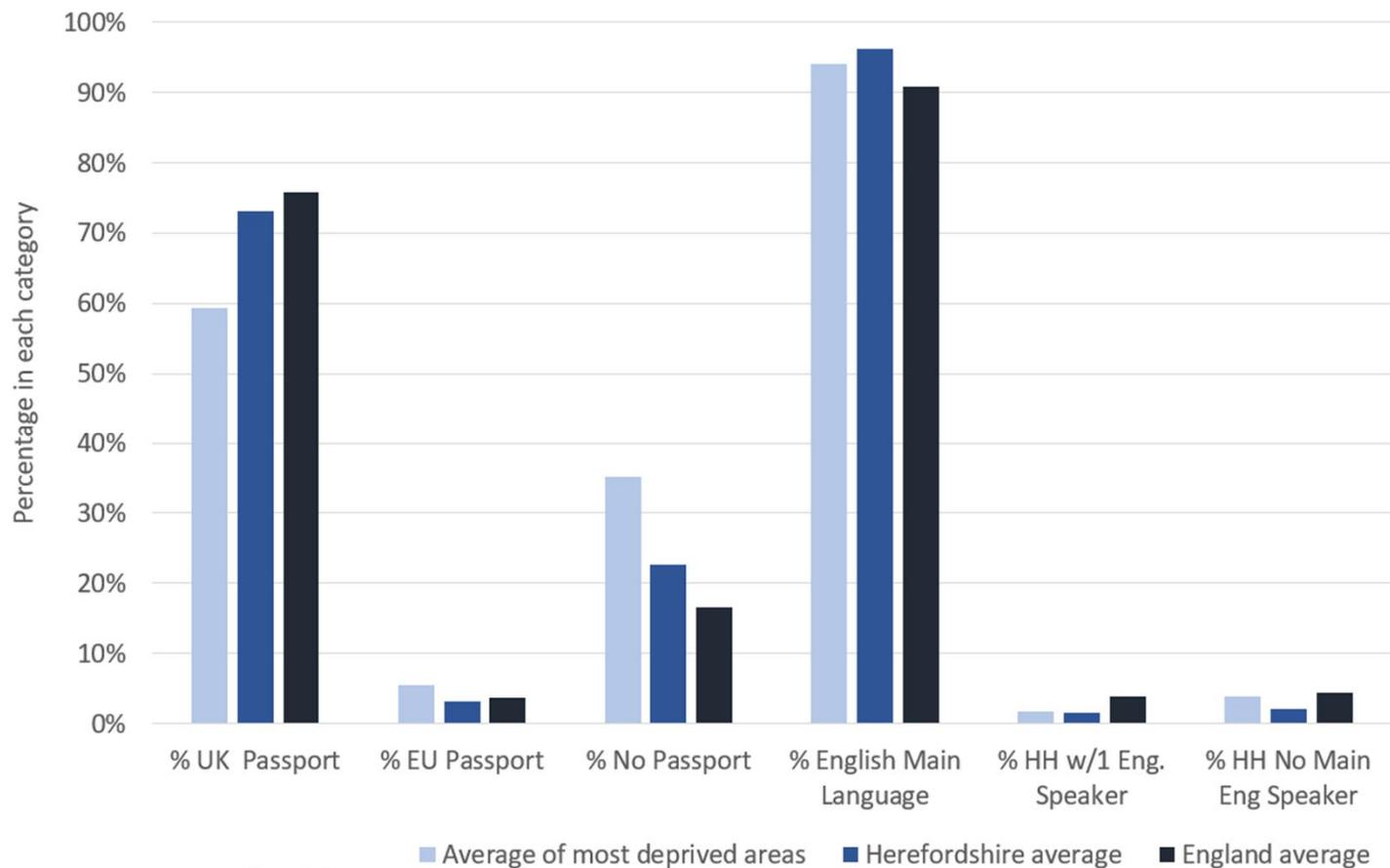
And for men it is the same story



Note: a 3-year decline does not imply a long-term trend

Source: ONS; 90% analysis

A small but not negligible group of households have no member with English as the main language

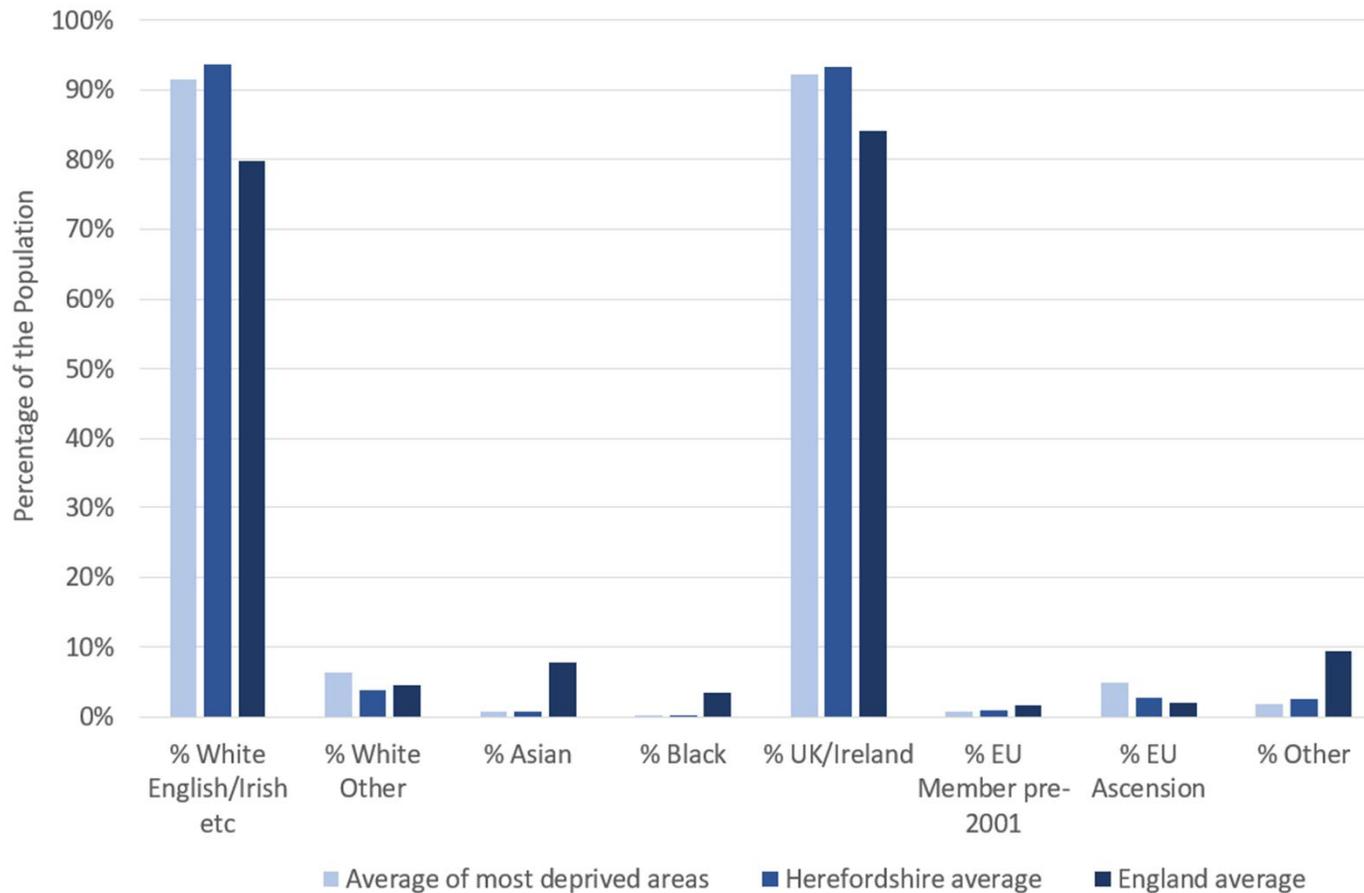


Hypothesis:

There may be language barriers contributing to the difficulty in finding good jobs.

Source: ONS 2011 Census; 99% analysis

Herefordshire has 'white deprivation'



Hypothesis:

Unlike other parts of the UK, deprivation in Herefordshire is largely among the white population – including EU ascension countries

Source: ONS 2011 Census; 99% analysis



Appendix 3 - Environment

- Appendix 3a - We absolutely need food, but we need to find better ways of producing it
- Appendix 3b - A change in diet would make a significant difference
- Appendix 3c - Along with a reduction in food waste
- Appendix 3d - These changes would enable Herefordshire to protect farm incomes while changing the pattern of land use, rural employment and reducing carbon footprint
- Appendix 3e - Changes in diet and reduction in food waste

We absolutely need food, but we need to find better ways of producing it



- Globally, agriculture produces 30% of greenhouse gas emissions. In the UK agriculture this figure is just 10% of the national total, but still produces 45 million tonnes of CO₂e each year.
- **To REDUCE our current net GHG emissions** from agriculture and food production, we need to both **reduce** ongoing GHG production and **increase** the capture and sequestration of carbon
- two of the biggest potential areas for reduction in GHG production are **diet change & food waste**
- The NFU has set a target for UK Agriculture to become net carbon zero by 2040, based largely on improved production efficiency (25%), increased natural carbon storage (20%) and BioEnergy Carbon Capture and Storage – BECCS (49%)
- increased natural carbon storage in trees, organic matter in soil, peat and wetlands is available now
- BECCS is a technology that has proof of concept but has yet to be implemented at scale

Slide 42

MOU1 Jeremy to have a first go using Andrew's latest report
Microsoft Office User, 19/11/2020



A change in diet would make a significant difference

- Europe and North America mostly eats what is considered to be a meat rich diet, for reasons of taste, tradition and accessibility. Large areas of UK land are not suitable for crops, and livestock have an important and beneficial ecological role to play if managed correctly.
- Species-rich grassland as permanent pasture is not only very biodiverse but it also acts as an important carbon sink and should not be destroyed
- Livestock (particularly cattle) in fields of grass are part of the identity of Herefordshire, but red meat gives us just 1/3rd of our dietary protein (37%), 1/5th of our calories (18%) and produces 60% of emissions (as CO₂e)
- For an example of a plant-rich diet, the [EAT-Lancet Planetary diet](#) as published in the Lancet in January 2019, is a proposal for how globally we could feed 10 billion people, for greater health, on the agricultural land area we have now, ie with no further deforestation. Broadly speaking, the diet proposes reducing red meat by 90%, chicken & fish by 50%, while maintaining dairy intake and increasing our intake of cereals, pulses, fruit & vegetables



Along with a reduction in food waste

- currently in the UK, 24% of the food produced never gets eaten. 16% is in the food supply chain (the selection of produce - the 'wonky carrot' story - handling, transport, packaging & storage), and a further 9% of food is bought but ends up going straight from the fridge to the bin due to over-purchasing and poor storage at home
- the supply chain should theoretically be highly motivated to reduce losses in order to increase profit, but there are also two human behaviours that contribute to waste and that we could change: i) promote positive selection of the food shapes & sizes that are currently rejected by the supermarkets and ii) reduce the consumer habit of multi-pack offers and bulk buying
- we have modelled for a 30% reduction in consumer food waste

These changes should accompany an ambitious programme of reforestation



- the only realistic option available right now is carbon sequestration by trees. There are a number of other technologies in development but none are commercially available at scale immediately.
- Herefordshire has a relatively low area of woodland – 10% by area is native broadleaf, 3% is conifers. The EU as a whole averages over 38% tree cover.
- Under most circumstances, the fastest conversion of atmospheric CO₂ to solid carbon is in plantations of conifers, for which the ‘best’ end use is in construction where the wood remains in a solid form in a building for a long period of time. UK timber is often not of good enough quality for construction and is used for fencing, packaging and biofuel. The latter serves to sequester carbon for around 40-60 years (the life of the tree) at which point burning sends it back into the atmosphere as CO₂.
- Dense conifer forests also offer poor biodiversity. It is now fairly common practice to try plant new or replacement forest with up to 30% native broadleaf trees, 20% open space for biodiversity and the remainder as conifers for a timber crop 40-60 years later.

These changes would enable Herefordshire to protect farm incomes while changing the pattern of land use, rural employment and reducing carbon footprint



- Working from government data and satellite imagery, we were able to build a detailed picture of land use in the county in 2007 and 2016. Over this period there was a slight reduction in pasture area and an increase in land for cereals. We extrapolated these trends to 2030 (adding in a 5% increase in built area for a predicted 10% population growth) for a vision of the impact that this would have on rural employment, agricultural income and carbon footprint.
- We then looked at 2 other different scenarios for 2030:
 - i) 2030 with widespread change to a plant rich diet, a 30% reduction in domestic food waste and an increase in woodland in keeping with UK government plans for 30,000 hectares new forest nationally each year. The reduced meat consumption from diet change would allow for a 35% reduction in the pasture area for livestock with the rest of the land repurposed for arable, fruit & vegetable crops (this which would significantly increase the food energy output of the county).
 - ii) 2030 with diet change so 35% less pasture, a 30% reduction in domestic food waste, a small increase in arable, fruit and vegetable to maintain food energy production at current levels, and all the remaining available land used to plant woodland (this does not at this stage take into account the suitability or otherwise for land for arable or forest crops).

Changes in diet and reduction in food waste



Herefordshire Food energy production (millions of cal)

