

# Ireland 2040 Spatial Macro Plan

Economic and Political Context 2017 and Urban Context 2017 – New Model - Investment Payback Timeline

Transport Context 2017 – Irish Policy /Opportunity

Housing Context 2017 - H+T Affordability – Urban Wealth Chart - Spatial Growth Pattern - Irish Housing Poverty Crisis / Opportunity-

**KSW Urban Proposal 2016 – Solution - Inclusions**

Full Planning Context 2017 – Public Health Context 2017 – Marine Context 2017 - Social Justice Context 2017 - Environment Context 2017 -

# Ireland 2040 Spatial Macro Plan

## Economic Context 2017

Global Physical + Virtual Networks

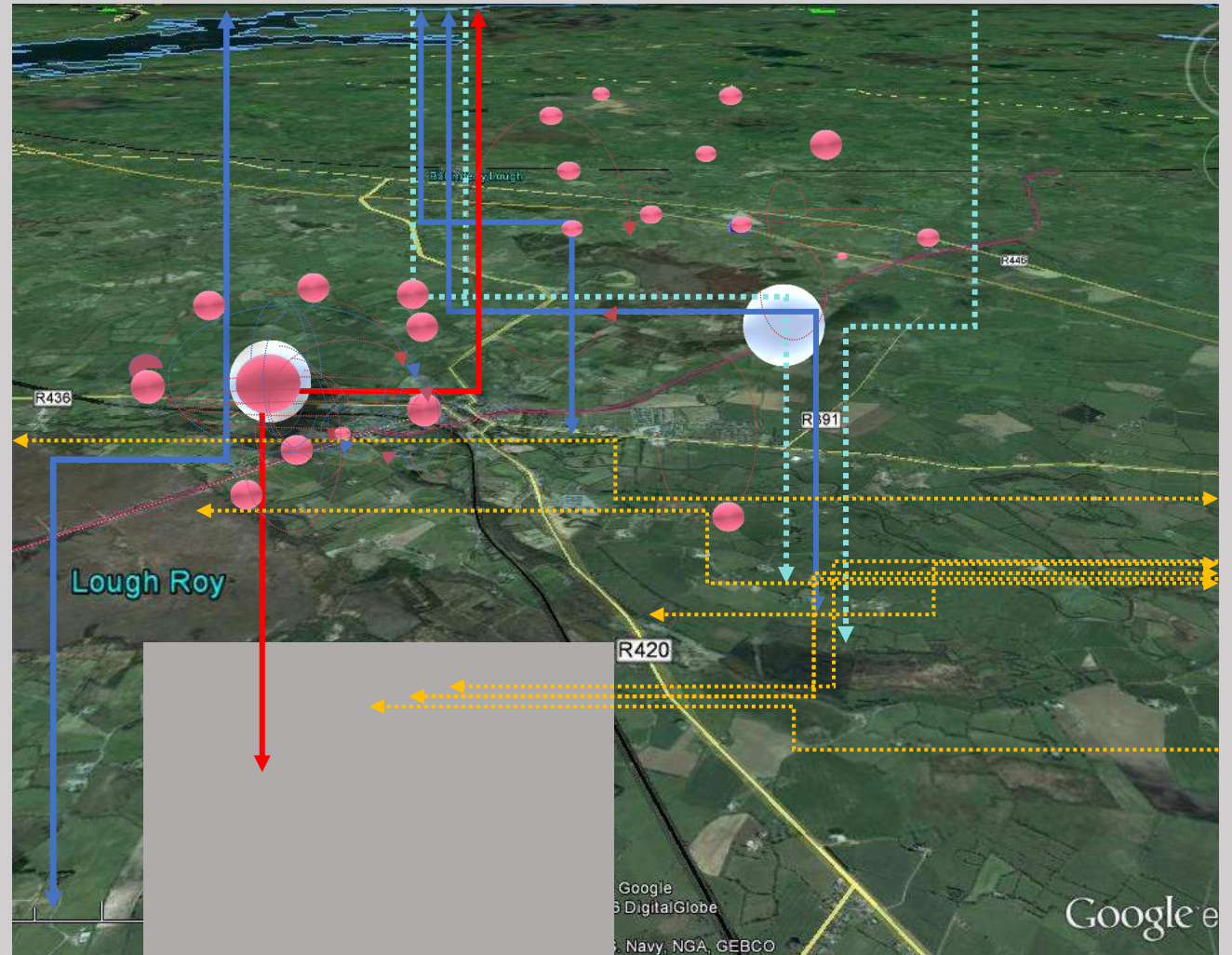
Local Physical + Virtual Networks

## Political Context 2017

Trade Networks

Movement Networks

Border Networks



# Ireland 2040 Spatial Macro Plan

Urban Context 2017

Economic + Political Investment Model  
2017

Comprehensive Solution – re Crisis Growth

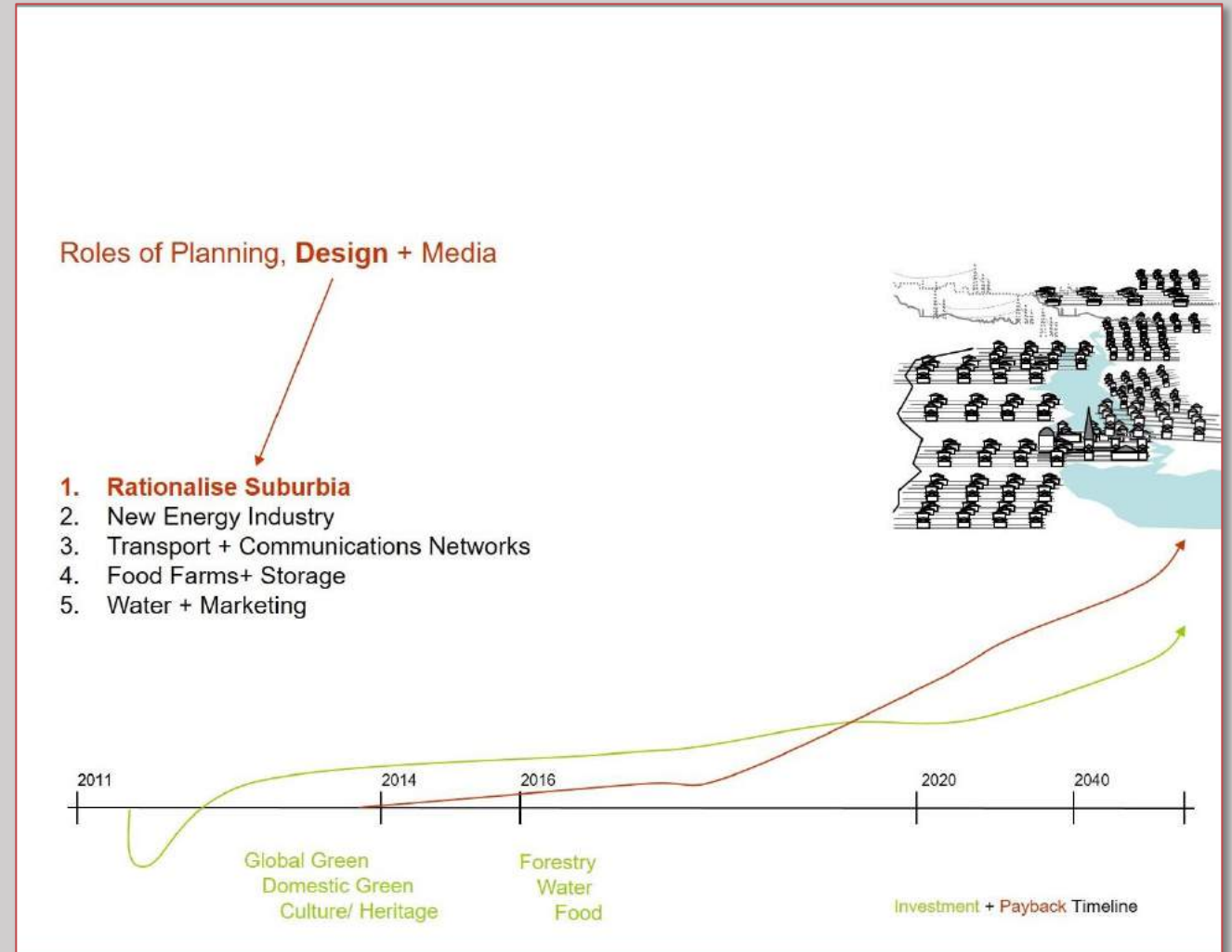
1. Demographic Population **Accommodation**
2. Optimal Building **Lands**
3. Scaled Systems **Building**
4. National **Urban** Models
5. Multi-**Services** Location
6. Civic **Participation**

# Ireland 2040 Spatial Macro Plan

Urban Context 2017

New Economic + Political Investment Model 2017

This Investment Payback Timeline indicates **opportunity** levels proposed (UCD) in 2011  
Payback follows and surpasses investment





# Ireland 2040 Spatial Macro Plan

Transport Context 2017

Irish Policy /Opportunity

‘**Dispersed spatial patterns** of development have now effectively ‘locked-in’ acute car dependency and, in the context of the much changed economic circumstances, are very **unfavourable** to efficient and sustainable transport provision...’

The Atlas of the Island of Ireland (2015, AIRO, ICLRD Chapter 6 Transportation)



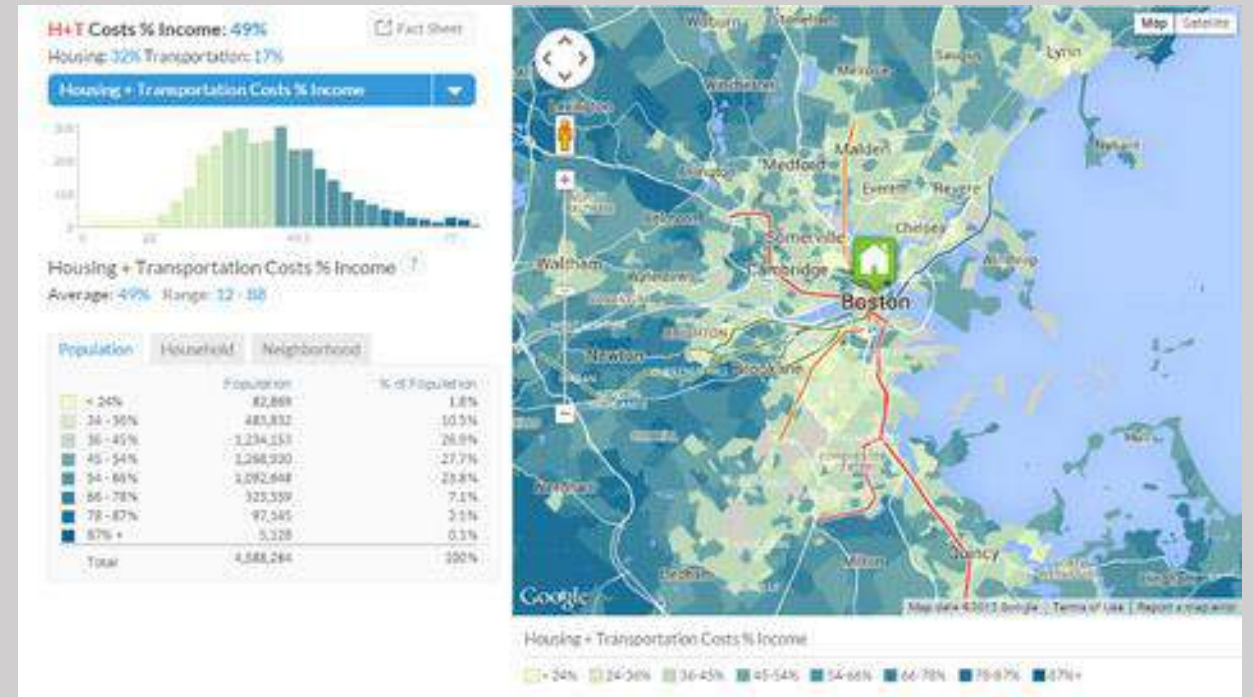
# Ireland 2040 Spatial Macro Plan

## Housing Context 2017

### H+T Affordability

The Centre for Neighbourhood Technology (CNT), US, Housing and Transportation (H+T®) Affordability Index offers an expanded view of affordability, that combines housing and transportation costs and sets the benchmark at no more than 45% of household income.

The traditional measure of affordability recommends that housing cost no more than 30% of household income. Under this view, a little over half (55%) of U.S. neighbourhoods are considered “affordable” for the typical household. However, that benchmark fails to take into account transportation costs, which are typically a household’s second-largest expenditure. When transportation costs are factored into the equation, the number of affordable neighbourhoods drops to 26%, resulting in a net loss of 59,768 neighbourhoods that Americans can truly afford.





# Ireland 2040 Spatial Macro Plan

Housing Context 2017

H+T Urban Wealth Chart

This graphic highlights the **poverty trap** created by car-reliant housing – as outer-suburban and ribbon estates lose easy access to work opportunity in urban centres

## Housing + Transport

# What's the **real cost** of moving further from an urban centre?

### House Cost

Decreases with distance from city.



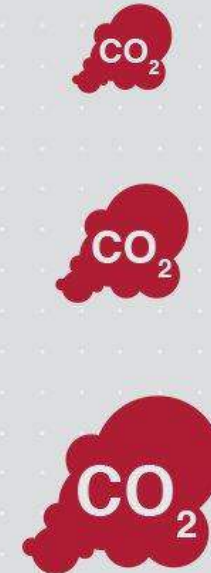
### Transport Cost

Increases with distance from city. (+ Government cost burden increases to maintain roads and services)



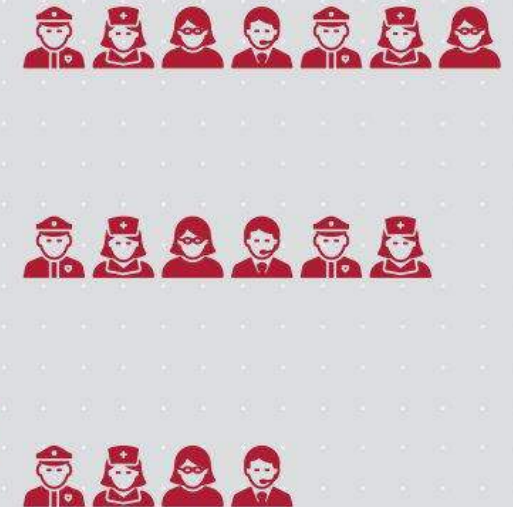
### CO<sub>2</sub> Emissions

More Travel = Higher Emissions.



### Government Services

More services available in urban centres. Cost burden to government increases when provided in sparsely populated areas.



Cost of property + Cost of transport = Combined **household** cost burden

KSWUrban

Nicola Kelly, Urban Mixed Development specialist and Charlotte Sheridan + Kevin Woods of Sheridan Woods, Architecture, Urban Development and Planning practice. All are Dublin-based, with academic, practice and international experience. KSWUrban@gmail.com @KSWUrban



Planning More to Travel Less

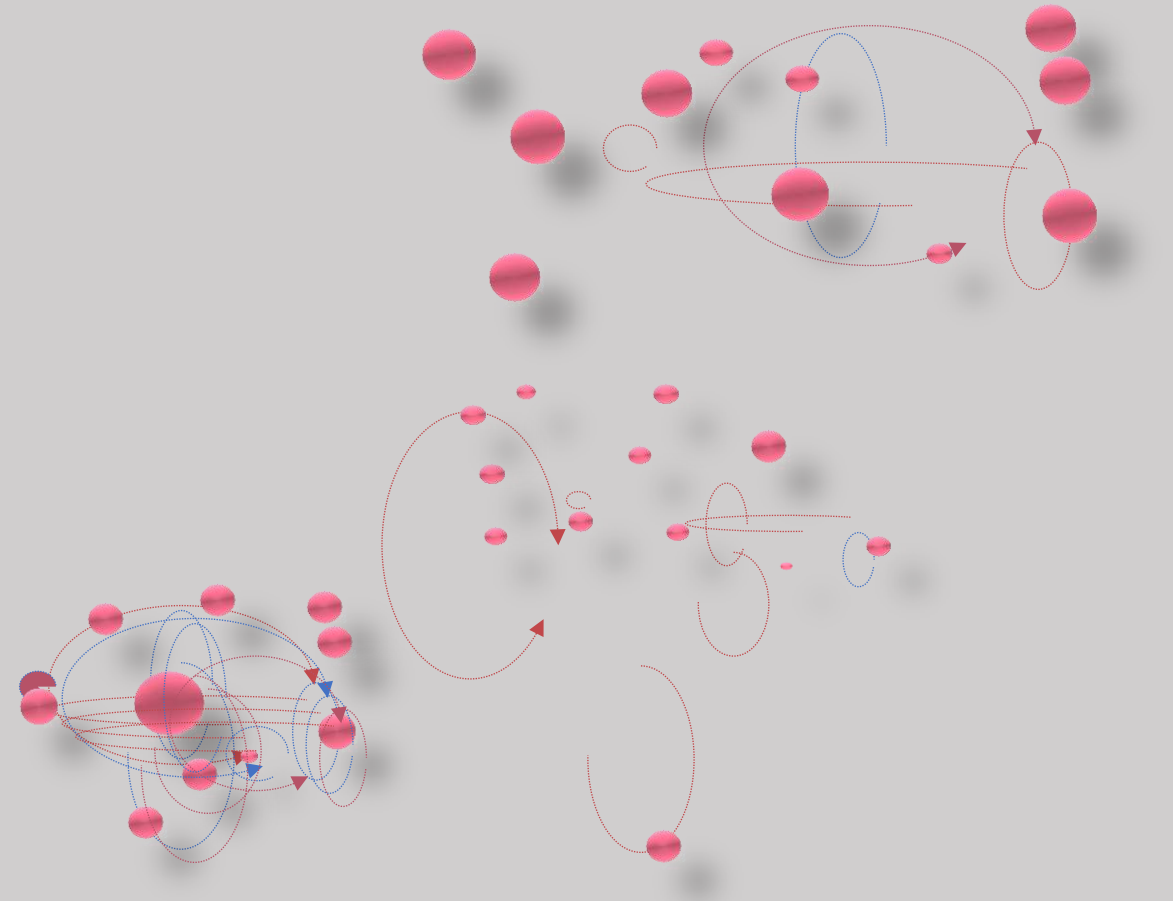
# Ireland 2040 Spatial Macro Plan

Housing Context 2017

H+T Spatial Housing + Services Network Growth  
Pattern

Irish Housing Crisis / Opportunity

This graphic depicts Ireland's **car-reliant** housing distribution **pattern** featuring **decreasing** service network provision - limiting work opportunity and prosperity with distance from Urban Centres











KSWUrban

# Housing + Transport

## Metropolitan Dublin Plan Proposal 2016

**Abstract:** Ireland's Transportation Network in 2016 provides insufficiently for current public movement requirements and for future demographic needs by prioritising expensive road housing, failing to link dense housing by bus, rail or other public alternative modes and thus to operate at economic scale. While Irish suburbanization matches US sprawl patterns and debt level closely, it can be rationalised by re-design of our existing urban centres. Dublin can operate more effectively as the island's main economic driver and will immediately draw investment towards major transport projects if a visionary urban /rural plan is implemented soon and with efficiency.

We recommend the following mapped urban design solution – featuring clustered housing with accompanying transportation corridors and backed by private and semi-private green space. A variety of schemes are generated within - and based on a proposed Dublin metropolitan plan. Major rail link up-grades to key cities and towns are included (e.g. Belfast, Drogheda, Mullingar, Navan, Sligo, Clara and Tralee - accompanied by a number of individual urban proposals. Central to the plan is an international 2-Stop Airport-Broadstone fast rail link, continuing on to connect major hospital and educational, as well as, new and existing commercial sites. Domestic and International Air link proposals are included. (K+SW Urban Group)

Major Urban Rural Developments using under-utilised state owned resources; rail, waterway, industrial, heritage, peatland, health, and educational, lands and infrastructures.



### Dublin Metropolitan Area

Airport to Centre  
2-Stop Fast Link

■ Drogheda interchange: Road to Rail





# Combined Housing + Transport Metrics (Affordability)

This solution is designed specifically to counteract the higher cost burden incurred with increased distance from urban centres. It aims to increase car-free accommodation by between 30% and 40%.

## 1. Internal Migration

The chart below shows movers by county of origin in 2010. It shows the pressure on Dublin's neighbouring counties due to lack of adequate housing provision in Dublin County and highlights the need for a metropolitan plan. This trend appears to have continued since the 2011 Census, further exacerbating the situation.

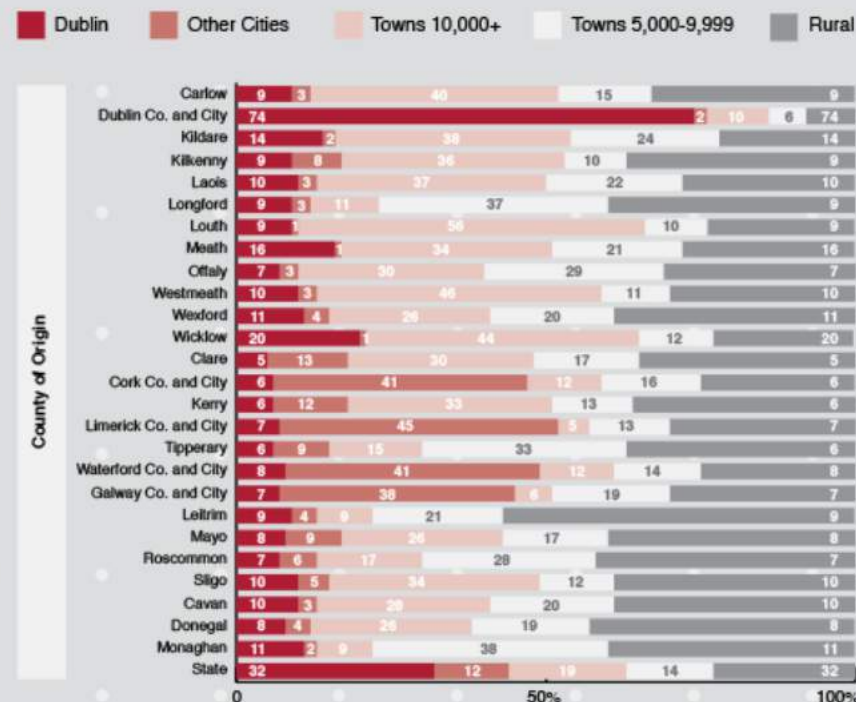


Fig 1: Usual residence by area type of those who moved home in the year to April 2011

The transportation sector is responsible for more than one-third of U.S. carbon dioxide emissions. Light-duty vehicles account for almost two-thirds of transportation sector emissions; medium- and heavy-duty vehicles account for almost a quarter.

Source: U.S. Environmental Protection Agency (EPA), Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2013 (Washington, DC: U.S. Environmental Protection Agency, 2015). <http://www.epa.gov/climatechange/Downloads/ghgemissions/US-GHG-Inventory-2015-Main-Text.pdf>.

## 3. Failure of Government Policy


The Atlas of the Island of Ireland, published by All-Ireland Research Observatory (AIRO) and the International Centre of Local and Regional Development (ICLRD) Chapter 6 Transportation concludes that notwithstanding Government policy to achieve modal shift away from private modes of transport, with the objective to reduce and avoiding the direct costs of congestion and recognising the very high economic cost of increasing road capacity to meet ever growing demand, together with climate change, energy, environment and public health consideration that there has been further growth in the share of private transport modes for commuting and education trips with very limited potential for alternative mode.

'Dispersed spatial patterns of development have now effectively 'locked-in' acute car dependency and, in the context of the much changed economic circumstances, are very unfavourable to efficient and sustainable transport provision...' The Atlas of the Island of Ireland (2015, AIRO, ICLR Chapter 6 Transportation).

## 4. Barriers to Change

*Intensifying Melbourne, transit-oriented urban design for resilient urban futures* (2014) specifies these Barriers to Change; Politics, The Blame Game, Lack Of Certainty, Site-by-Site Planning, Capturing Capital Flows, Market-Based Ideology, Resident Resistance, Lack of Vision, and Elevated Rail.

Addressing these barriers in Ireland improves the likelihood of National authority network planning taking precedence over regional and local political concerns, which in turn kickstarts the following events;

- Immediate  Guaranteed house building at a necessary scale

of existing bogland



## Mullingar

### 2 Rail to Greenway

HSE lands: Major market garden network  
Further lakeland development





# Ireland 2040 Spatial Macro Plan

KSW Urban Proposal 2016

Full Planning Context 2017

Multi-Sectoral Compatibility

e.g. Agriculture, Gaeltacht, Technology,  
Sport, Culture, Trade, Tourism, Forestry,  
industry,

## **KSWUrban - Planning More to Travel Less**

Develop policy to counteract the higher cost burden incurred with increased distance from urban centres. Objective to increase car-free accommodation by between 30% - 40%

*Post-National Spatial Strategy 2002-2020 and pre-National Planning Framework*, in the context of current pressures on the Irish Government to facilitate the delivery of housing, we propose this necessary **Housing Delivery Game Changer**, specifically for the North and Dublin, West and Midland, and South Regions.

The Collaborative Housing and Transport Development Strategy will align and coordinate sectoral initiatives to ensure benefit from complimentaries by selectively prioritising areas for different kinds of activities in line with infrastructure, demographics and local resources.

Project specialists: N Kelly (Project Co-ordination), K Woods (Urban), C Sheridan (Planning), S Dooley (Graphic Design), G MurphyForeau (Conservation), A+E Gray (Commercial Catering), G OBrien (Design Quality) and KSWUrban (Project Management and Architecture). Note Continuing UCD + DIT academic collaboration potential.

Proposed project map images © Google Earth 2016. Poster © KSWUrban.

# Ireland 2040 Spatial Macro Plan

## KSW Urban Proposal 2016

Public Health Context 2017

This proposal is **compatible** with the **HSE Public Health Medicine Environment and Health Group PHMEHG National Planning Framework Submission 2017**

Proposed Sprawl + Commute Reduction + Urban Park and Services development would contribute significantly to achieving the aims of all 8 recommendations specified – e.g. in reducing Obesity, Water Contamination, Inequality, Poverty, stress but instead increase Work and Leisure Opportunity.

Marine Context 2017



This proposal is **compatible** with achieving, and assisting the realisation of, envisaged ocean wealth integration developments re Irish economic recovery and sustainable growth, through coherent policy, planning and regulation management ref. **Harnessing Our Ocean's Wealth 2012/2015**

# Ireland 2040 Spatial Macro Plan

**KSW Urban Proposal 2016**

Social Justice Context 2017

Environment Context 2017

Compatibility re Inequality, Poverty Change

Compatibility re Climate Change - Significant  
CO<sub>2</sub>, Water Waste and Energy Use reduction

# Ireland 2040 Spatial Macro Plan

2017 National Planning Framework  
now presents

**Opportunity for Planning Long Term  
Housing + Transportation (H+T), for  
Proven Maximum National Benefit /Payback**



Nicola Kelly, Urban Mixed Development specialist and Charlotte Sheridan + Kevin Woods of Sheridan Woods, Architecture, Urban Development and Planning practice. All are Dublin-based, with academic, practice and international experience.

Contacts: 086 0488 444 / KSWUrban@gmail.com



Via  
**KSW Urban Proposal 2016**  
Further Details Available



# Housing + Transport

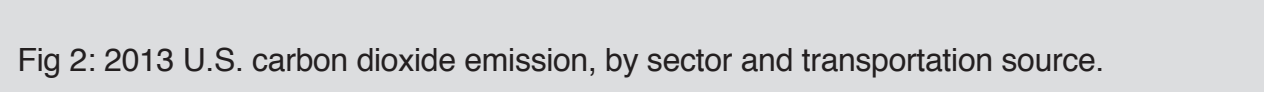
We recommend the following mapped urban design solution – featuring clustered housing with accompanying transportation corridors and backed by private and semi-private green space. A variety of schemes are generated within - and based on a proposed Dublin metropolitan plan. Major rail link up-grades to key cities and towns are included (e.g. Belfast, Drogheda, Mullingar, Navan, Sligo, Clara and Tralee - accompanied by a number of individual urban proposals. Central to the plan is an international 2-stop Airport-Broadstone fast rail link, continuing on to connect major hospital and educational, as well as, new and existing commercial sites. Domestic and International Air link proposals are included. (K+SW Urban Group)

Airport to Centre  
2-Stop Fast Link

This solution is designed specifically to counteract the higher cost burden incurred with increased distance from urban centres. It aims to increase car-free accommodation by between 30% and 40%.

■ Dublin
 ■ Other Cities
 ■ Towns 10,000+
 ■ Towns 5,000-9,999
 ■ Rural

2013 U.S. CO<sub>2</sub> emissions, by sector      2013 U.S. Transportation sector CO<sub>2</sub> emissions, by source



Source: U.S. Environmental Protection Agency (EPA), Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2013 (Washington, DC: U.S. Environmental Protection Agency, 2015), <http://www.epa.gov/climatechange/Downloads/ghgemissions/US-GHG-Inventory-2015-Main-Text.pdf>

#### 4. Barriers to Change

Addressing these barriers in Ireland improves the likelihood of National authority network planning taking precedence over regional and local political concerns, which in turn kickstarts the following events;

- Proposed Special Investment Fund (SIF) proportional spend

Housing (60%)

G T C I Cm

Project specialists: N Kelly (Project Co-ordination), K Woods (Urban), C Sheridan (Planning), S Dooley (Graphic Design), G Murphy-Foreau (Conservation), A+E Gray (Commercial Catering), G O'Brien (Design Quality) and KSWUrban (Project Management and Architecture). Note Continuing UCD + DIT academic collaboration potential. Proposed project map images © Google Earth 2016. Poster © KSWUrban.

Project specialists: N Kelly (Project Co-ordination), K Woods (Urban), C Sheridan (Planning), S Dooley (Graphic Design), G Murphy/Foreau (Conservation), A+E Gray (Commercial Catering), G OBrien (Design Quality) and KSWUrban (Project Management and Architecture). Note Continuing UCD + DIT academic collaboration potential.

Proposed project map images © Google Earth 2016. Poster © KSWUrban.

Nicola Kelly, Urban Mixed Development specialist and Charlotte Sheridan + Kevin Woods  
of Sheridan Woods, Architecture, Urban Development and Planning practice  
All are Dublin-based, with academic, practice and international experience  
Contacts: 086 0488 444 / KSWUrban@gmail.com