

Engineers Ireland Conference

13th April 2018

Check against Delivery



Very good afternoon. It is great to be with you and I'd like to thank the organisers for the invitation.

Before I start, let me say the views I express are personal and not to be attributed to the European Investment Bank in any way.

I am sorry that I could not be here for the earlier sessions which looked really interesting but I had to attend my godson's confirmation this morning. Watching over 100 Kids of some just over 10 years of age, made me really think for today, what will the world, what will Ireland look like for them in another 40 years when they get to my age?

With accelerating pace of change, Ireland of 40 years ago when I made my confirmation is unrecognisable. Now cast your minds forward even another 40 years into the future and yet of course we should be planning for seven generations and so imagining even further.

Unlike many politicians, engineers do not build just for the next 3-5 years. It is why you as a group have a special skill you can bring to this debate about Ireland's future.

Handling Population Growth

We are so lucky to be a country with rising populations but let's get one thing clear, mere population growth is a bad indicator of success!

Population growth badly handled, means quality of life for citizens can deteriorate and worse, in badly dividing up a finite amount of land, we can get very unfair results.

But well handled, it can be the guarantee of greater economic prosperity for all.

To do so well, you cannot avoid the hard choices though and we should not let our policy makers shy away from them. Well-functioning ecosystems, buildings or neighbourhoods are engineered – they do not happen just by accident.

Earlier you have heard from Pat Daly about the renaissance of Limerick. How it is turning itself around and becoming known as the “come back city”. The progress to date too did not happen by accident. As Michael Noonan explained recently in a different forum, behind the scenes a careful plan has been implemented over a number of years, to make the city more appealing as a place to live, to diversify the sectors of economic activity across many different sectors and reduce vulnerability to a Dell type closure. Focus was directed at improvements in connectivity for the region, whether air, rail, shipping and road. And work continues on rebuilding the historic urban fabric of the city including for affordable residential living and contiguous counties for residents and tourists alike and investing in services like recreation, health and education.

As engineers, you will know there is not necessarily just one perfect style and the best buildings need to evolve with time. Countries and cities are the same.

It is why I was delighted to see such a broad set of topics for the conference today and so honoured to be able to be part of the conversation. I congratulate the organisers for taking such a broad and welcome view of the subject matter.

In a world where citizens are becoming less and less trusting of their governments and populism continues to expand, as we saw recently in Italy and in Hungary, it is all the more critical for all stakeholders to put aside their reticence to get involved and express their views openly and loudly.

The Price of Success badly managed

For decades Ireland has done a particularly brilliant job at many things, marketing the country, getting disproportionate world attention on St Patrick’s day to our little island, having a pro-business tax and other environment and with it very considerable success in attracting FDI and more recently growing some world beaters of our own.

With that success though have come new demands on our built environment to which we have not I believe faced up honestly or effectively.

The increase in the many new people (many new born generations of Irish families) who call Ireland home today has helped with those successes but opened up fissures in our society and divisions

Compare a nurse who bought a 3 bedroom house, garden and parking spot close to Dublin city centre 40 years ago and the position in 2018 of any of his three kids or a new immigrant nurse trying to find a home close to work in Dublin’s city centre. Worse, think of the difference in household income of his sister who worked also in the service of the state as a teacher earning about the same salary but out the road from here in Newcastlewest.

A country which treats people so differently cannot be doing a good job.

These conflicts are echoed for “just about managing” people all over the country and manifested in so many ways.

- Think of the fairness of allowing people who have always had a car to expect to be able to continue to drive to town to work even if their action creates congestion and pollution for their neighbours who are willing to travel the same journey together in a carbon friendly bus or train.

- Think of the impact of people who have a driveway with their house or even a private garden near the centre of a city and expect to have the right to keep this expensive city real estate even though they may no longer even drive a car or have kids who want to play in that garden while others get pushed further and further out from the centre as centre real estate is too expensive.
- Think of people who built a house on the farm beside their parents some decades ago and think it only reasonable that their own children should be able to do the same on another plot of zoned agricultural land, who when they get planning permission for a one off house from the state give their children an advantage not likely to be available to children of other parents in the state.
- Think of people who own their own house in trendy areas and who will see windfall increases in value drop out of the tax net altogether even though created because of taxpayer provided infrastructure. Meanwhile renters in the same area see their rent rise when the neighbourhood becomes more fashionable.

What these examples show is that the way in which we have treated land and home ownership may not be fit for purpose for a country with not so much a stable population but a significantly growing population like we now have.

How long more will these disadvantaged groups continue to accept rules and regulations and subsidies which tend towards the protection of the vested? How long more before it breaks out into more significant social protest and unrest than we even saw during the water protests and nearly saw about rising rental levels.

The traditional divides between left and right in European politics are breaking down because today even people with great qualifications working really hard to advance are finding they are simply not able to aspire in any way to the same life as professional or semi-professional people who did exactly the same one of two generations before.

In Ireland we are not immune from those issues. Indeed, it is little talked about but the dynamics of population growth in Ireland make this a particularly acute issue.

Over the years from 1916 until entry into the European Union, the Irish population rested rather close to three million people. Since then it has moved to above 4.75 million. It is going to continue upwards and this is great towards 6 million.

But rather than plan well for this growth (which seems to have crept up on us), we have had all too laissez-faire approach to development and to the built environment. With our island once home to 8 million people it did not seem to occur that we ever needed to plan this carefully. There was plenty of land to go around.

To make matters worse, we also piled almost all of the state architecture and services in or around one of our smallest counties – Dublin - with a restricted hinterland as it was on the sea. By contrast in the earlier years under British rule, cities like Limerick and Cork prospered much more equally with Dublin.

This meant that as less and less was happening elsewhere, Dublin land became more valuable relative to other places for those living there and more and more expensive for those who had to move to the capital. Today, average rents in parts of Dublin city centre are more than three times the average rent here in Limerick city centre, a mere two hours away by train.

To make things worse, instead of continuing the rather dense urban infrastructure of pre-independence years, with our growing affluence, we adopted with zeal the car based suburban or one off housing model we were seeing on TV. Our towns and especially Dublin sprawl and sprawl generating large profits for owners of previously agricultural land and Nimbyism rules the roost when the densification of existing urban footprints was considered. We have built over 500,000 one off houses since the early 1990's I believe, probably on an acre of ground each, which makes a land mass the size of Wexford removed from productive agricultural use.

We got another wakeup call this morning if you were listening with the publication of a report showing our housing stock is among the worst performers in Europe for energy efficiency and it noted the particularly larger size of Irish homes – once more a sign of individualism rather than living for the common good. A sign of the lack of public realm and services as everyone for example tries to build playrooms or study rooms for their own children to amuse themselves in splendid isolation rather than have them play or study with others in municipal playgrounds or libraries.

As more and more people needed to get into and out of a rather low density expensive Dublin core, with its restricted hinterland, we focussed spending in in roads radiating out of the city and in services for this dispersed population growth while at the same time underinvesting in our urban spaces and related public services.

Without a network of dense nodes of population to be connected to each other, we dismantled the rail systems and relied on private car ownership (itself a rather expensive proposition) to get everyone around from A to B.

We are now reaping the consequences of these choices.

Let me be rather blunt. As we undo the short-term damage of the crash to our economy, the really awful medium term consequences of bad management of our country in the years leading up the crisis are now being revealed.

For me, the more serious and much less talked about consequences of mismanagement of Ireland for decades are the structural problems hard wired into our country by bad or no planning decisions around the types of housing we built, about where we built that housing, about under investment in our public transport system and built urban environment and the inefficiencies we have now embedded into the cost of the delivery of public services – including essential ones like health, security, broadband, energy, water, waste, education and the rest.

It will require great re-engineering of our built and planned environment to design a better and fairer future.

And a better future cannot be measured on purely financial terms by counting the money in the pocket of citizens, the size of their home or the number of cars in the drive.

We must change the debate as we should be doing in a more advanced economy so that success is people being “well-off” measured in broader terms more like a happiness index and fairness of opportunity to all who call Ireland home whether newcomers or established long-timers.

Re-engineering for this success will require a new approach where the common good is put much more ahead of individualism.

Without radically revisiting our views on property rights and the needs of the common good, those lucky to be invested in housing especially owned housing in certain parts of the country –

particularly close to Dublin will have an advantage in life which can never be caught up to by those living further away or entering the system de novo.

Against a backdrop of growing inequality in the world and a growing sense that many of our citizens are being left behind despite growing prosperity, there are many uncomfortable truths for us to be faced.

I tend by nature to be optimistic about society and especially Irish society. Our nation has been built very much on a sense of community for generations.

By facing up to these problems honestly and innovatively I believe that in this great country we can create a much fairer and more stable society into the future while retaining the competitiveness necessary for our economic prosperity.

Background Problems

Because in truth, Ireland is a great little country which has very successfully traded its way to ever increasing prosperity in recent decades.

We've made things more difficult for ourselves by crashing the government finances numerous times. Much of this because we do not do planning for the future well.

The last crisis has only made things worse as for much of the last decade we have had to focus on the very survival and stabilisation of our nation, not investing for the future.

And at a European level, in reality, the same is true. Europe has been falling further and further behind other economic similarly sized blocks. We celebrate a growth rate of 2% at the moment whereas a number of decades ago that would have been a reason to fire all of the policy makers.

While I welcome the recent increases by the government in the allocation of money to capital spending we are simply not investing in today's infrastructure at rates which are moving us forward fast enough. We are hardly keeping up with depreciation and that against a backdrop of significantly increasing population.

Our public transport and health systems are not servicing us well all over the country. How many times have I been left at a bus station in Dublin as full buses pass by or drenched crossing the unsheltered platform at Limerick Junction – a major inter-city exchange point.

Our housing crisis gets worse by the day not better. We still are unable to produce a really world class university. And the quality of life we are offering is not up to the standards now available in other European countries.

We know what problems exist in Ireland now as the system starts to creak – over dominance of Dublin to the detriment of the regional cities, rural towns becoming commuter towns for not their regional cities but in fact Dublin, and rural villages dying as their population becomes dispersed in one off housing driving not to the local village but rather to the nearest suburban shopping centre for groceries and services.

On top of this there are global changes to be taken into account which make our choices a little harder. These include advances in technology, eCommerce, transformation of car industry, climate change, growth of urbanisation, ageing populations, shifting populations and growth of cities all of which will profoundly change how we live our lives into the future (but the not too distant future).

All of these were identified in the recent National Planning Framework. But sadly, much of the outcome reacting to a political kickback in the weeks up to publication, suggested we are yet not ready at a political level to make the correct choices to deal with urbanisation trends and changing transport patterns? There were positive ideas but the allocation of funding to many disparate competing priorities will prove if lessons have been learned or not.

I remain however optimistic that there is a way forward.

The essence of the re-engineering is twofold.

Firstly, creating a greater fairness of opportunity and treatment for more people including increases in our population and do that by providing OPPORTUNITY in more places than just in the centre of one city.

Secondly, recognising that the common good is better served by people who are prepared to live with the compromises that come from living in greater proximity to their neighbours. It makes delivering public services cheaper and we must reward that.

As a corollary, for those currently living in the more individualistic ways we once tolerated even encouraged, we should continue to support them as best we can but also work to provide more attractive and more sustainable lifestyle alternatives for them as they move into different phases of their lives and be determined not to continue to encourage these bad choices of the past for others just because doing so is politically appealing for the next election.

So with these two principles in mind, what might a more holistic re-engineering of the way Ireland works look like. I see a number of steps.

Putting East on a diet

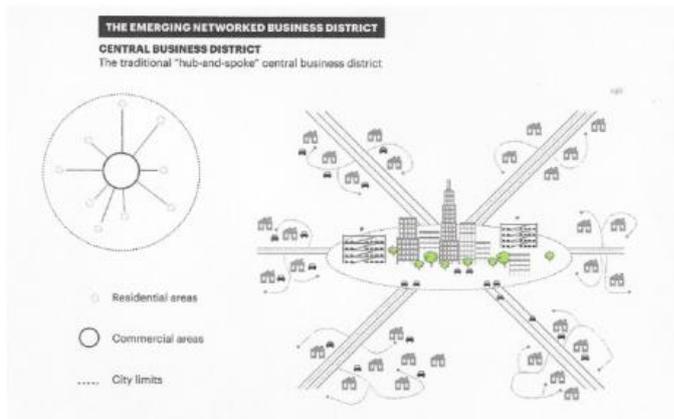
Firstly anyone who sits in traffic in Dublin for over an hour or more to get to work knows we are not coping well with our huge structural challenges of population growth and eastward drift. Take a look at this slide (**Slide 1**). This is a map of Ireland by population. It does not make a pretty picture.



I am going to be ridiculously simple and general in the bit that follows to try and illustrate the point.

Take a look at this slide with thanks to Vishaan Chakrabarti and his excellent book “A Country of Cities”) (Slide 2).

This is the traditional way cities were developed with a core central business unit. Work, retail, culture and administrative services in the centre. Where it “succeeded”, people other than the very rich had to live outside as high retail rent values crowded out affordable housing. Thousands commuted from further and further in the search for affordable so called family housing.

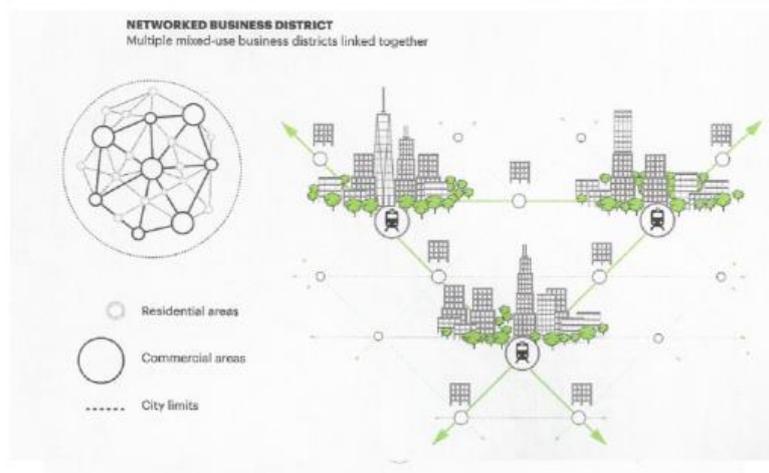


Then in turn schools and services and then mobile jobs moved to the city suburbs where the people were and then the centre decayed. This is the story of Limerick no better than anywhere else. It was the story of Dublin too up to the 1980s and while Dublin has started to roll back the clock down town, it remains incredibly congested with all of the commuters into its prime city centre where most

things are still located.

Compare this to the next slide (Slide 3) with a more modern approach.

Here you see several districts or nodes well connected with public transport. Each node has its own equally good public services, housing and commerce and easy access to missing services distributed across other nodes of the city. Requisite density in each node allows for the creation of vibrant communities and the delivery of public services without the large city impact of one way commuting patterns every morning and evening and ever increasing rents in the centre. In between nodes are top of the range public parks and facilities (not suburban sprawl) so that the whole city scale remains attractive.



As the population needs to grow extra nodes can be added without significantly disrupting the equilibrium and as each node is equally attractive in which to live then property remains affordable for more and for longer than in the central business model.

More balanced regional development required

If Ireland wants to remain competitive on the global stage, it needs quickly to develop and implement similar modern spatial strategies and related planning rules – even if it does not suit all the interests vested in a continuation of the status quo – greenfield suburban landowners, car park owners, people living in low density housing in urban areas – even car drivers.

Dublin particularly needs to succeed and improve dramatically its own urban fabric.

But for that to happen and for important social cohesion reasons, we also need to see greater regional development as our population and economy expands.

We need to develop our country almost as if it were in total one of those nodal cities I just described before. Instead though of just building Dublin as a nodal city, let's take advantage of the tiny size of our island to have our regional cities each operate as nodes in a new alternative to Dublin.

But at the same time we live in a world of limited resources and each node requires a certain scale. Consequently, we can only have a very limited number of nodes (maybe even only one done well) in the first development phase, each operating as a centre for its own hinterland.

We do not have the luxury of starting with a clean sheet of paper but it does seem to me that we can easily move to offer two different urban lifestyle choices to sustainably accommodate the majority of our population growth and arrest eastward drift.

Approached this way, Ireland will restrict the number of one off houses dramatically and offer two choices for the majority of people looking for a place to live, work and play - either the capital Dublin or our Atlantic Economic Corridor city cluster.

And looked as two alternatives, they do stack up nicely.

There will always be some who prefer the bustle of a concentrated one million plus city just as there will be others who prefer the feeling of a slightly smaller one as long as the availability of services and job opportunities are not second class.

The government controls the placement of public services and so holds the key to dictate the result and jobs tend to follow talent so once people follow the good services the tide swings.

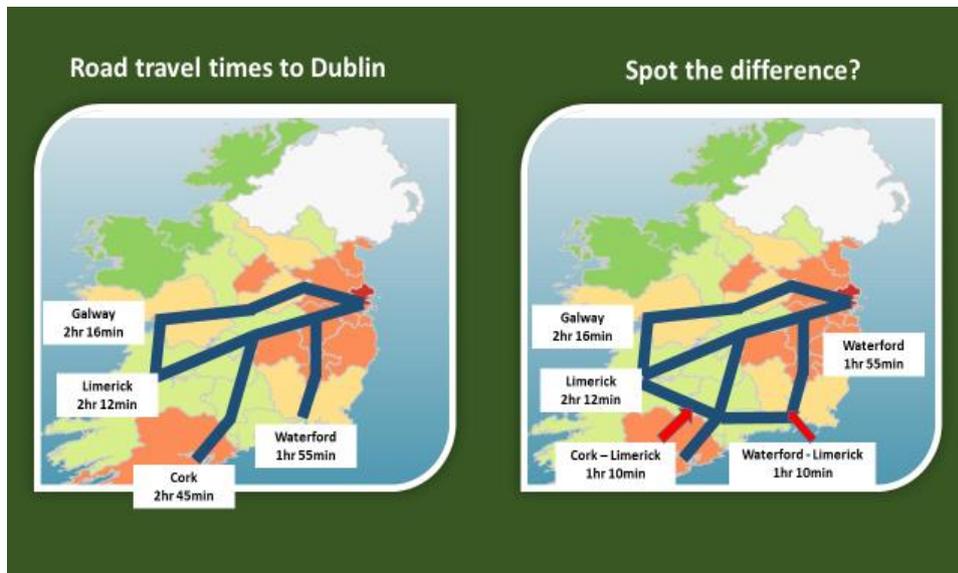
When you look at the cluster of AEC cities, as a whole not individually, their claim on public services to be more centrally located therein become comparable to those of Dublin.

Either option now has a population base of some 1.5-2 million. They each have three universities. The AEC cities have a broad range of economic sectors and names from Medtronic, Apple, Regneron, Dell, Troy Studies, Pfizer, J&J, I could go on. But most of all they propose a much more desirable and affordable quality of life, sharing much shorter commuting times to their nodal centre and sitting on the doorsteps not of the Wicklow Mountains and Newgrange but Connermara, the Burren, surfing in Sligo or Lahinch, the ring of Kerry, Ballyhoura, West Cork, Blarney Castle, Tramore- I could go on.

Importantly, though, it is not each city competing with Dublin on its own – an unfair battle it seems these days even in Gaelic Football. Each acts more like a district in the one urban AEC conglomerate – just as Leixlip, Silicon Docks, Cherrywood, City West act today for Dublin. And it probably takes more than an hour to get between most of these too.

By providing an alternative to our one only real option now (Dublin), we get to buy Dublin time to provide for a more limited but continuing growth as it turns itself into its own nodal city with places like Cherrywood, Heuston Quarter, Tallaght, the Dublin airport zone being allowed to develop.

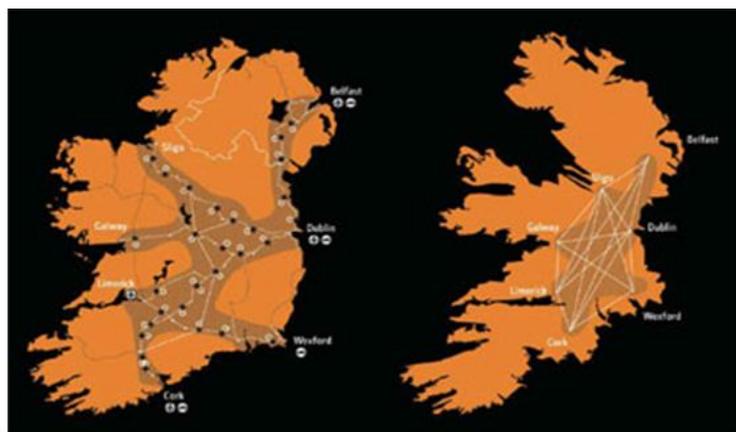
For sustainable growth of the Atlantic Economic Corridor, the key to reducing demand to live in the one place (and therefore reduced price inflation in all of the cities) for housing and commercial space is improved connectivity.



Take a look at this map (Slide 5) with one motorway added we see just how different the world looks for places like Tralee, Cork, Waterford, Portlaoise, Galway, Ennis all within one hour of the centre of this non Dublin region of interconnected places.

And since it is hard to speed up travel any further on the roads, you need to do something to speed up the connectivity of this new hub and Dublin with a high speed railway for example linking Dublin to Limerick (Slide 6) and thereby reducing times to Cork, Killarney and Galway too. That is the real step change infrastructure of the future. As with the road infrastructure and the rail infrastructure working together and meeting in Limerick Junction/Cahir, we open up a whole new logistical centre for the country at that point.

This allows public services to be relocated along or at the other end of the trains (ideally in one central location) which can service both inhabitants of the Dublin Capital region and the AEC region. We then start to see a country develop where administration centres and commercial centres may not all need to be in the one place.



Hopefully, you see an entirely different vision of how our country could operate now for those 10 year old kids I mentioned at the outset.

Capital Spending

But critically we need to be ambitious about our destination from the outset.

And let us be clear, ambitious plans will simply not work if there is not significantly greater commitments to funding in respect of them.

At present we build and provide infrastructure following demand rather than use them as a disruptive tool to encourage people who have not yet decided where they want to spend their lives to choose another location.

This must change.

We can trumpet major spending on large projects, like Metro North or even the M20 but when it comes to spending allocated to remodel the main street here in Limerick, no more than about 8 million euros is available. Other regional cities do not fare much better. Think about it – only 80 euros per person living here for a so-called transformative change to last for decades. That is derisory.

The national planning framework must really take a very different approach to allocation of money and services and delegation of responsibility to the regions for the spending of it.

Why should it be that the best museum, the best hospital, the best university should automatically be targeted for the centre of the capital rather than the centre of the AEC? This is not the way it is in many other countries. We are perhaps overly influenced by our two nearest neighbours – the UK and France where the capitals dominate.

But looking West, the US and Canada have multiple cities with different functions. Take smaller countries like, say Denmark or the Netherlands and we see something much more balanced too.

Since we are here in Limerick today, let us imagine a scenario in which in Budget 2018 a brave decision were made by Paschal Donohue to fund connecting Dublin to Limerick more efficiently by public rail transport, becoming more and more rapid as resources can be freed up.

Then the Budget delegates to a local regional government the funding to spend whatever billions are required in the short term to create a new 21st Century modern urban living experience in a pilot city on the banks of the Shannon –

- a zero CO2 city,
- a city with a block on expansion into greenfield areas until the existing urban footprint has densities that allow for sustainable living,
- allows for much cheaper delivery of services, maybe even free broadband,
- affordable housing and adequate social housing
- where cars are the least desirable way to get around,
- where the health services are better than anywhere else in the country,
- where education is the most diverse most technologically advanced of any place in the country and
- where the parks, cultural offerings and public realm along the riverside and into the countryside are world class and free to all.

And while we are at it, challenge and empower the local politicians properly by allowing them to charge much more in local property taxes and rates for the privilege of living here to even fund better facilities.

Decisions by Dublin based politicians should then be restricted to engineering a fair situation where regional services and national services not needing to be in Dublin can be funded and located to fairly service the four designated AEC cities of Waterford, Cork, Limerick and Galway.

Once the pilot is planned and underway in Limerick, do the same with Waterford, Cork and Galway in quick succession and work hard to improve their interconnectivity.

Driving a pilot within a broader framework of reform and improvement is the easiest way to make this a reality if all the pieces are done in the one city at the same time. It is much easier to get this city right first than try and fix all of the others, including Dublin, at the same time.

Ditching suburbia and one-off living

But a key to this new approach is that for reasons of affordability of public service delivery, mental and physical health, inclusive communities and the rest we also need to show a more desirable alternative to housing stock exists than relying on a car dependent suburbia model.

Not everyone will want to move into a city. But, by quickly making our urban spaces more attractive and exciting, our new population growth will likely vote with their feet (like people all over the world) and turn their back on suburbia (sometimes presented on the outskirts of towns without even a train station). Given a real choice they will very likely want to move to more attractive housing close to work and amenities like good education for their kids.

Amenities and services serving this purpose will also be key improvements for the many deprived communities already in our inner city areas.

Remember above all, free health services, culture and animations and sports facilities in accessible city spaces are available to all not just those who can pay for expensive tickets or afford a car to get there.

As we re-engineer for happier, more content liveable walkable communities the positive dividend is massive. Compare someone who commutes one hour to work to someone who can stroll down the street in less than 15 mins, dropping off the kids along the way to school. They work 6 years for every 5 years of the second person. That means they work 6 extra years in an average lifetime. That's six years' extra free time whether you earn minimum wage or €100,000. Now that's a good way to improve happiness (and you might even get to know your neighbours and local shop keepers more and feel happier in a more secure community).

Coping differently for an aging population?

This works too for aging populations. By 2046, Ireland will host well over one million persons over the age of 65 (compared to just over 500,000 today), including I hope myself. As I grow older, I have no interest in living in an isolated house in the country fearful of a fall or a burglary. I want to be able to live in a town or city without a car in my daily life, close to amenities, shopping, doctors, surrounded by top notch public realm and fun things to do with my friends. A driverless shared vehicle to rent for a couple of hours for a special trip where public transport will not work or to explore an unspoilt rural countryside. A high speed train to go from the centre of the AEC to the centre of Dublin in one hour and onwards to Belfast.

To listen to some of our politicians and interest groups, you might think I am some outlier but the reality is there are many others who share that vision too rather than living in car dependent suburbia or rural Ireland.

Happier walkable community urban spaces mean healthier people too as they grow old.

And the young too

And at the other end of the spectrum, increasingly, young people and others all over the world are turning their back on suburbia to want to live in denser urban spaces. Millennials crave social interaction with their peers and not just on smart phones but in casual meeting spots whether at work or in public. Those of us who grew up living in suburbia or rural Ireland hooked on cars need to recognise this if we want Ireland to retain and be attractive for our kids and the world's talented kids. And we all know urban spaces drive innovation and economic growth more successfully than less dense rural hinterlands.

Reinvigorating Rural Hinterlands

Once we have moved successfully down that path and started to save money by reducing the per capita cost of service provision, we can then start to have a less emotional and more evidentiary debate about the best way to revitalise and protect rural Ireland, remembering that if we are being honest we'll accept that the best way to maintain rural Ireland as an amenity to be enjoyed by all is to stop adding more people to live in it.

With our regional cities operating much better than today, their surrounding hinterlands will be able to do more than just be commuter beds for Dublin but can rely on their rural traditional industries and their nearby successful "big city".

Remember as we distribute more than a million people over this AEC city cluster, each of the rural hinterlands can develop with the benefit of a city of some 300-000-500,000 nearby (not 80,000 as at present).

But remember, I am not advocating the forceable relocation of thousands of people as some have suggested. Remember, very few of our rural areas have actually experienced population decline in the last number of decades. It is just the population has spread out into the countryside rather than build in villages and towns as happens in other countries.

I am really asking that we put a limit on the increases of this sprawl and build to accommodate our population increases within our cities and larger towns with the result that on average our population becomes (like so many other countries) more urban and public services cheaper to deliver per capita.

The need for a change of mindset

Putting this in place will however require a complete mindset change so that we reward (not penalise) those willing to chuck the idea of two cars and a garden outside the front door, to live the compromise of density rather than choose individualism as their preferred model of living.

We must be sure to create affordable homes in those city areas so everyone can choose to live there not just the rich or those already in place.

Our chances of doing all of this will be much improved as we will not be doing it not just closer and closer to O'Connell Street in Dublin with ever rising prices but over a limited number of equally serviced and attractive urban choices.

Failure to act quickly means we risk social unrest from the unfairness of our existing system or at best will continue to lose ground to those other European cities who are successfully redirecting their growth and more efficiently delivering public services in these ways.

Re-engineer it well and not only do cities like Dublin prosper but many other cities and towns of Ireland adjusting to this new model can prosper too.

And of course an additional advantage notable in the city of sport is that a more even population distribution east and west will make the Munster-Leinster rugby or Cork-Dublin GAA challenges much fairer too.

I hope I have stimulated some ideas and thank you for your kind attention and remember, cities can be fun too!

