inclosed. €50

The Gluas Submission to An Bord Pleanala on The N6 Galway City Ring Road

The Gluas Project committee makes this submission to An Board Pleanala as a supporter for the Outer Ring Road Development. It believes that the outer by pass will divert traffic which does not require to be in the inner city to be removed from the grid lock of our city. The committee believes it is not the silver bullet which will cure the problem but a vital part along with the Galway Strategic Traffic Management Plan with one basic difference , that the bases of this plan be based on Light Rail Trams rather then buses. The bases of our argument are contained below

Why

Traffic is a sign of a healthy and burgeoning economy. Increased heavy traffic means more people, more jobs and more prosperity, resulting in people buying more vehicles, travelling more and buying more things that need delivery.

But the cost of economic success is greater congestion with far-reaching impact, from the cost of additional fuel and the environmental and social impact of associated emissions to the cost of time spent by drivers in gridlock. The extent to which businesses incur costs of congestion is usually passed on to consumers in the form of higher prices for goods and services.

Inrix Research [3] has found that congestion is a significant and growing burden on our cities and now a proven global phenomenon. Itseffectson businesses along with and in addition to commuters, small cities like Galway and as well as large ones, and developed as well as developing economies.

Population and economic growth alongside continued urbanisation are the root causes of congestion. By 2050 there will be 9.7 billion people in the world, 70 percent of whom will live in cities. [1] (United Nations Population Division, World Population Prospects (2015 Ed)).

Over this same period, the global economy is expected to triple in size leading to more than a doubling in road and rail travel and more than a tree-fold increase in the amount of road and rail freight. [2] It is estimated that the volume of cars will increase in developed regions ... and vehicle miles travelled will increase accordingly. Freight vehicle miles travelled will continue to rise as urban populations grow along with demand for goods and services. [3] (Inrix Research, 2017, G. Cookson & B. Pishue).

Galway as a fast developing city with an increasing population will be greatly exposed to incremental rising congestion. Left unchecked congestion will continue to intensify.

The challenges faced by all, commuters, households, private companies, transportation authorities including city councils and government cannot be understated.

Statistic and data are vitally important in solving the congestion problem as a first step and are important in creating enlightenment and sustainable systems of transportation for urban mobility as increasing transportation capacity results in expenses and a strain on budgets. Data based decisions will help our planners and engineers to prioritise spending, to maximise benefits and to reduce costs now and in the future.

The GLUAS Committee's light rail proposal with facts and data will benefit the city in reducing substantial congestion by reducing traffic vehicle numbers on our roads, thus reducing travel times and costs to commuters, businesses. Less emission will benefit the welfare and health of our citizens and the environment.

The light rail system proposal is a reliable solution and will play its part in significantly reducing Galway's congestion. Galway city is evolving rapidly and has costly transport issues making the management of movement a costly concern. The rapid increase in Galway's population is resulting in more vehicles, worsening congestion, increased emissions concerns are

a huge strain on the already ageing infrastructure which cannot serve commuters efficiently, coupled with this we have the human toll of increased aggravation, high blood pressure levels, productivity loss and cost to business and commuters.

However, the authorities believe and say they know what we want, better than we do ourselves right now. We need to convince them that we know what Galway needs to alleviate traffic congestion and our light rail proposal is a major component in the solution.

What the Community feels is most important. 22,000 people signed a petition requesting a study to be carried out in relation to the requirement of light rail for the city. This effectively infers a request for light rail. What the community feels is most important. The job of developing a transit system must never be left entirely to the experts. Once a community has expressed its transits goals, experts have a role in designing systems to meet them.

Experts should not be the source of the goals themselves and should not be treated as the ultimate authority. It's time for the city to imagine itself and build itself.

Congestion of Galway City Roads

Congestion on Galway City Roads

- **Cars owned by city householders is 32,090**
- **Cars from dormitory towns entering daily – estimated at 7,000**
- **Cars entering the city weekly from main arteries i.e. M6 is 335,000**
- **Buses servicing the city internally – 55 no and Busways**

The Fundamental cause of congestion is the imbalance between the demand for roads and the supply of road space. Although,congestion is the symptom of a thriving economy,congestion is harmful physically and economically for our health and wallets.Even non-drivers suffer as businesses pass on the costs of congestion through higher prices for goods and services.All citizens suffer air pollution when additional fuel is needlessly burnt. Congestion is a truly global phenomenon. All major cities have significant growing congestion problems. Worldwide drivers spent 9% of their driving time in 2016 stuck in traffic.Car commuters waste days in gridlock every year. For example drivers in Russia spend on average 42 hours in peak hour congestion annually and drivers in Turkey,U.K ,Germany, Slovakia, Luxembourg, Norway, Poland ,Switzerland, Austria and Sweden al spend more than a day stuck in peak hour congestion on average annually.

By comparison drivers/commuters in Galway spend

a) 26% of driving time in peak hour driving and

b) 44 hours per year on average stuck in congested traffic. (Many drivers have reported spending 1 to 2 hours daily in traffic) which amounts to 80 hours per annum approximately. Of the world's worst traffic congested cities, Galway ranks
   a) 70th worst out of 1360 cities in
   b) 38 countries on
   c) 5 continents

Galway is in the top 5% of the world's most congested cities and the worst traffic congested city in Ireland(InrixTraffic Service Board Feb. 2017).....7

Cars Owned by City Householders: 32,090

The CSO Census of 2016 points out that Galway householders owned the following number of cars.

- Householders with cars = 239,342
- Householders with 1 car = 13,017 Total cars: 13,017
- Householders with 2 cars = 7,276 Total cars: 14,552
- Householders with 3 cars = 1,131 Total cars: 3,393
- Householders with 4 cars (or more) = 282 Total cars: 1,128
- Householders with no cars = 6,236 Total cars: -
- Householders not stated = 1,300 Total cars: -

Total householders 29,242 Total cars: 32,090.....(1)

29,242 householders own 32,090 cars

The population of Galway was circa 80,000 (CSO Census 2016)

Therefore there is one car for every 2.40 people

With the growth in the economy it is reasonable to assume that this figure of 2.49 will decrease as more cars will be bought by more people.

The CSO Census 2016 notes a trend in the increase of car ownership. This increase will also manifest itself in an increase in the 32,090 cars owned in Galway. By 2030 Galway's population is expected to swell to 129,000, an increase of almost 50,000 people in 11 years' time. By 2040 the city population could increase by 100%.

Cars from Dormitory Towns

Dormitory towns, see below, hold an aggregate population of 27,968 (CSO Census 2016), and contribute greatly to the population growth of the city daily in terms of people and cars. CSO Census 2016.

Bearna	= 3,739	Craughwell	= 1,763
Moycullen	= 2,143	Spideal	= 1,440
Oranmore	= 4,291	Athenry	= 5,469
Oughterard	= 2,036	Kinvara	= 1,536
Furbo	= 1,403	Clarinbridge	= 3,548

Total aggregate population: 27,968

Assume 25% of the aggregate population of 27,968 enter the city daily for work, college, school, etc by car, that is 7,000 people and 7,000 cars.(2)

Therefore cars using the city by householders and dormitory travellers to the city amount to: 32,090 + 7,000 = 39,090 daily, (3). and

200,000 weekly (say 5days)

Note: According to the CSO Census 2016 there were 109,271 cars in Galway County and City. In 2017 this number increased by 2000 (CSO Transport Section). It's reasonable to assume that city car totals would have increased by 1,000 cars approximately and continue to increase due to the buoyant economy, more people employed than ever in the country and more disposable income.

The population of Galway CSO Census 2016 was circa 80,000.

Planning figures suggest by 2030 Galway's population will be circa 129,000 people, that is in only 11 years. By 2040 it could be an extra 80,000 people.)

On the 15th December 2017 (4) Galway City Council, Transport Unit, Mr. U. Finn reported that recent traffic counts showed the following;

a) 183,000 vehicles entered the city from the M6 every and……(4)
b) 153,000 vehicles entered the city via the other three main routes…..(5)
   Therefore 335,000 vehicles enter the city via its main access roads weekly,which amounts to circa 60,000 vehicles on weekdays…….(6)
   In summing (3)and(6) above it is very likely that Galway City would host 535,000 (335,000+200,000) vehicles weekly which is circa 80,000 daily.
   By 2030 this figure of 535,000 will undoubtedly increase appreciably in line with the projected increase in the population and the growing economy.,

Since the construction of the N6, the Thomas Hynes Road and the widening of the Seamus Quirke Road and other routes some with cycle and bus lanes,removal of roundabouts and replacement with junctions which employ smart traffic lights all of which alterations have not impacted positively on the city's congestion havoc, there has been no significant or appreciable built infrastructure to ease or relive the congestion chaos. With only limited scope for traffic capacity enhancement traffic management within the city it is unlikely to be able to accommodate the additional traffic flows implied above. Thus the projected patterns of population growth coupled with employment growth will most certainly lead to uncontrollable and troublesome traffic congestion which in effect could/will undermine the positive effect on the growing Galway economy and businesses. (12)(See Galway Chamber of Commerce President Comment).

Thus, to accommodate the projected growth in the population and the local economy significant investment in transport infrastructure and in particular public transport infrastructure in and around the city would have to increase appreciably. Worthy attention to the matter of congestion and lack of transport infrastructure has **not** received the urgent attention required.

Commuter Statistics – CSO 2016 – Census – Galway

The CSO 2016 statistics indicate the population was 79.5k, in less than 2% of Ireland's 4.75m people.

It is reasonable to assume that Galway population is now circa 85,000.

The Galway city boundary extends approximately from Bearna to Murroug/Roscam and over to Menlough.

The statistics state that within the city boundary 53,388 people travel to work and school and colleges daily.

The statistics are as follows:

5035 people (9%) travel by bus, minibus and coach

19,200 people are car drivers]

8694 people are passengers] 55%

1087 people travel by van]

80 people travel by ruck/lorry]

19,272 people travel by foot (22%), bike (5.69), not stated 5.6%

Note: "Not stated" are people probably working at home or travelling by train.

Of the 9% that travel by bus, minibus and coach the Census of Population 2016 – profile community in Ireland (Geographical Difference) points out that only 2591 people in Galway use Public Transport, that is 3% of the community population. By contrast 55% commute by car, van, truck, lorry and are the main contributors to Galway roads congestion. Public transport i.e. bus use is grossly under used.

Buses and Busway – Galway City

- **"50/55 Buses serve The Galway City Area"**

No city has ever solved its congestion problems using buses alone. A surprising large percentage of traffic congested and delay in the city is caused by the Turgid movement of buses

Most of the delay comes from buses loitering at stops during the boarding phase which in turn delays following traffic backing up behind the bus unable to overtake due to narrow streets of inadequate and on-coming traffic.

The number of buses serving the city area do not per se make much difference to vehicle numbers overall negotiating our road and streets. However, they cause inordinate and disproportionate traffic delay. The ponderous bus is an emblem of all that is slow, inefficient and retrograde in city life, more a thing of the past than that of the bold urban smart city future. Statistics show that people do not leave their cars for the "Bus".

Comparing the parameters of light rail trams and buses and taking into account the main characteristics that effect energy consumption which are rolling resistance, drive efficiency, drag coefficient and frontal area and weight, buses require more energy per passenger than trams. A report by Professor Blaise Kelly on "Energy Efficiency of Trams" shows that on combining Accelerating Energy (wh) and Cruise Energy (wh) that the buses double decker diesel are in excess of three times more inefficient than trams or that trams are three times more energy efficient than buses (Trams 58wh v buses 198wh).

Buses are significant producers of toxic emission that contribute to climate change. Particulate matter from tyres, brake pads and road surfaces is also a far bigger health hazard and risk than people realise. Trams, interestingly, produce very little of the above. Tram wheels have a fraction of the rolling resistance of rubber tyres.

It is interesting to note that, with the exception of the U.K. and Ireland relatively few busways (corridors) in developed countries. Light rail success stories like Vienna and Manchester use trams on busy transport corridors and buses on quieter ones.

Galway city and surrounding area with its fast increasing population needs an affordable, efficient and reliable transport service for its people. Buses do not and cannot provide this service. Statistics show that more people switch from cars to trams than from cars to buses. As such trams are effective in tackling congestion and pollution so they can carry out mass movement of people which buses cannot do.

Trams (Light Rail)could be part of a SustainableTransportNetwork for Galway, suitable for the 21st century.

Replies to this submission can be made to.

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