

PRESENTATION ON EIRCODE

&

A NATIONAL POSTCODE

TO

**OIREACHTAS JOINT COMMITTEE ON TRANSPORT &
COMMUNICATIONS**

BY

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1. Background & Qualifications Gary Delaney

I am appearing in front of the Oireachtas Joint Committee on Transport & Communications as an expert in navigation, positioning, GPS, mapping and as someone who uniquely has the experience of delivering a solution which is similar to a National Postcode across all of the island of Ireland over the last 5 years. Loc8 Code is successfully used by many both private and commercial users across the island. No other address coding system has been similarly successfully used and deployed in Ireland and I have unique experience beneficial to the Committee in their considerations in that regard.

I am a professional naval navigator, having been an officer in the Irish Navy for almost 20 years, but I am also a land surveyor and experienced land navigator. I have a Masters Degree with Distinction in Navigation Technology. I am an Elected Fellow of the Royal Institute of Navigation and of the Irish Institution of Surveyors, soon to be part of the Royal Institute of Chartered Surveyors. I have used, specified, installed, trained and supported GPS, Mapping, Positioning systems and multiple coordinate systems for the Tourism, Fisheries/Angling, Agriculture, Forestry, Water Infrastructure, Oil Exploration, Hydrographic Surveying, Marine Navigation, Military, NGO, Emergency Services, legislative enforcement for criminal/war crimes/humanitarian investigation and academic industries for over 35 years in Ireland (North and South), Lebanon, UK, Central, Western & Southern Africa, Middle East and Seychelles and I work regularly for the Irish State as an expert witness in investigations where position evidence is required. I have supported Garmin Satnav users in Ireland for at least 10 years. I have researched and been directly involved in the issue of an Irish National address coding system since before 2005 and my ideas on the matter are on the public record since then. I have supported commercial and private users of Loc8 Code for over 5 years. I therefore, appear before you as a recognised expert in Navigation and GPS and modern postcode requirements. The exercise of using a national postcode for mail, logistics, tourism, emergency services and commercial and personal travel is one related to the science of Navigation and as Eircode has mistakenly been designed to be totally dependent on GPS for even the most basic uses, I am more qualified to speak on all aspects of this matter than most in Ireland. Nobody with such experience was involved or consulted in the design of Eircode but the benefit of all that experience was used in the design of Loc8 Code.

2. Eircode for the Ordinary Citizen or Visitor

- a. Ireland does not need a postcode for sorting mail. The An Post's mail business is in permanent decline and Liam O' Sullivan of An Post told this committee that the Eircode postcode will not lift their current 98% efficiency in any way. They have long said they do not need a postcode to do their job. So the requirement of a modern postcode must focus elsewhere;- on logistics on the emergency services, on tourism and on the Irish citizen themselves. Nowhere in anything that has been said by successive Ministers, Department of Communications Officials, Consultants, Advisers or the Eircode contractors themselves has focused on the usability of Eircode for the ordinary person in the street, whether local or visitor. Often in attempting to justify the design of Eircode, it has been said that people will easily remember their own. However, this is not a key measurement of a postcode. Instead, it is whether people can remember or use someone else's postcode and this is not the case for Eircode. It is on this basis that people in Ireland will decide that Eircode is of little use to them and that decision, and whether Eircode is a success or not, is not the Ministers or

anyone else's other than one for the Irish people themselves. Yet, not one verifiable or documented user trial or focus group for Eircode has ever been carried out with ordinary citizen users. To be successful, like every other postcode in the world, a postcode must have basic functionality for the ordinary user. By looking at it they must be able to identify and visualise small geographic areas or localities. Only very recently, it was revealed that the first 3 characters of Eircode will not do that – it will not identify definitive areas and 80,000 properties around Limerick city and suburbs into the surrounding county area will have the same first 3 characters (routing key). To the ordinary user, current address information like O'Connell Street, "Limerick City" or "Dooradoyle" has, and will continue to have, more meaning than an obscure and undefined routing key. As for the rest of the code;- no human can do anything with that;- not even a postal sorter or a postman. So, basic interpretation by a citizen or a visitor user, such as deciding if a code is close to them or simply nearer to or further away from another code, is not possible by looking at an Eircode. They will not be able to decide if they were there or in the same locality before;- thereby making the code less than useless to the person who is paying for it through their citizenship and their taxes. This basic functionality should not need any technology other than the human brain to achieve with a workable and useful public postcode. A coordinate system such as Latitude and Longitude which has been in existence for hundreds of years has more functionality in these basic ways than Eircode. A UK postcode which is more than 50 years old has this basic capability and it is the reason that it is still in wide and popular use, even though it has other limitations and was designed in a different century. I must emphasise that Loc8 Code has these basic functionalities built in also, so that it can be used in simple ways without any technology at all.

3. Independent International Assessment of Eircode By GADA

- a. I draw the Committee's attention to the recently published Assessment of Eircode by Charles Prescott, Executive Director of the Global Address Data Association (GADA), the Address and Postcode experts, based in the USA. I know that the Clerk of the Committee passed this document on to every member during last week, so there is no need to go into it in detail. However, it must be said that it is an indictment of Eircode which it says is not even a traditional postcode let alone the "Historic", new "global standard" or "next generation" postcode that was claimed by those behind Eircode. It reiterates many criticisms of Eircode that I and others have been making for some time but which have been dismissed and ignored to date. One paragraph from the document states: *"So Ireland ends up with something that can't really be called a postcode system, except in part for the first bit. The second bit appears to be a system for random scattering of unrelated letters and numbers, which aren't even posted on buildings. Sadly, it appears there were no address experts involved in the final design process. One is reminded of the old adage about a camel being a horse designed by a legislative committee"*. I disagree with Mr. Prescott only on one point in this extract and that is where he suggests that the first part of Eircode is in some part like a postcode. In my estimation, explained later, that part, the Routing Key, relates in no way to a normal postcode and in fact achieves nothing of which it was required to do. However, the main point is that GADA's assessment effectively identifies Eircode as a disaster which will make Ireland a laughing stock if implemented.
- b. On the basis of this independent assessment alone, it is difficult to understand how Eircode could be let proceed at this point.

- c. The full GADA report can be found on line here: <http://www.globaladdress.org/wp-content/plugins/download-monitor/download.php?id=98>

4. Irish National Postcode History

- a. Ireland started talking seriously about a postcode in 2003. Aside from our unfit-for-purpose property addressing system, one of the reasons that serious consideration of a postcode commenced at that time, was because the EU mandated liberalisation of the postal market was on the way and industry leaders successfully made a strong and valid argument that a postcode would be necessary to level the playing field for competition in the event of liberalisation as one of the main issues was that An Post controlled the addressing system and controlled access to its interpretation. In 2006, a deadline for implementation of a postcode of Jan 2008 was set and every deadline set has been missed since then.
- b. In my opinion, the reason deadlines have been missed is because An Post and the CWU did not want a postcode introduced as it would assist competition and result in job losses. The CWU made these arguments against a postcode in their 2012 annual report. An Post has repeatedly said that they did not want or need a postcode and called it “a 20th century solution to a 21st century problem”. In a recent RTE Prime Time investigative piece on Eircode, John Tuohy of Nightline referred to this as “a protectionist stance” on behalf of An Post. The full Prime Time piece can be seen on line here: <https://www.youtube.com/watch?v=o4fEow6ASqY>
- c. Since the foundation of State, neither the Post & Telegraphs nor An Post made any effort to improve our property addressing system or introduce a postcode even though a postcode happened in the UK in 1960’s and in Northern Ireland in the 70’s. Instead, they developed an alternative approach to a postcode through the use of “postal” addresses and “post towns” which had the effect of removing true geographic intelligence from many addresses especially in rural areas, making them even more difficult to find without the assistance of An Post’s interpretation through the local knowledge of postmen and, in recent years, through An Post’s own commercial address database product called the Geodirectory. All of this disadvantages ordinary people and commercial organisations who want to find addresses around the country and especially couriers who are now competing directly with An Post in the parcel market. The parcel delivery business is rapidly growing as a result of internet sales and it is the only delivery element of An Post’s operation that is currently making profit.
- d. In 2012, whilst actively competing in the postcode tender and whilst Eircode was being agreed, An Post won a landmark judgement in the High Court allowing it to continue to change addresses as part of its postal address and post town approach. It can be deduced, therefore that An Post intends to continue using its traditional approach to mail sorting and this is confirmed by instructions to occupants of South Roscommon earlier this year when it aggravated locals by telling them they should use “Athlone” and “Co. Westmeath” as part of their address to ensure mail is delivered. It must be emphasised that An Post had helped agree the detail of the Eircode design at that point and knew it was on the way, so if they intended to use it in a meaningful way they would have availed of that opportunity to avoid creating bad press for itself in Roscommon.

- e. Over 12 years after first committing to implementing a National postcode we still do not have one and what is proposed in Eircode will not level the playing field as originally intended and nor will it improve Ireland's property addressing system. See my article specifically on this matter;- "Postcodes- WRONG WAY TURN BACK" (How Eircode will make Ireland's Property Addressing Worse instead of better) online here: <http://www.loc8code.com/news/postcodes-wrong-way-turn-back> Instead, Eircode will help to maintain An Post's control over Irish property addressing and its related advantage over its competitors. Some say that we have spent nearly 13 years designing Eircode but in fact we have spent 8 years watching the idea of a postcode being objected to by An Post and the CWU, a further 3 years negotiating a way forward and only a few months of the final few years since then agreeing the dysfunctional nature of Eircode such that it will be barely useful for An Post themselves and not at all useful for anyone else. Once again, as John Tuohy suggested on that Prime Time piece, Eircode is no more than the result of An Post protectionism, supported and encouraged by the CWU. A Labour party recommendation for a GPS based code as identified by then Deputy Liz Mc Manus TD in her comprehensive report on postcodes to this Committee in April 2010, supported by then Committee member Deputy Simon Coveney TD, has been discarded in favour of a political solution to a technical problem and the original purpose of the proposed National postcode has been long since lost in time and the protectionist agenda.

5. Legitimacy of Eircode

Eircode has questionable legitimacy for the following reasons:

- a. It fails to satisfy many, if not all, of the requirements of the intended National Postcode as set out by the National Postcode Project Board (NPPB) in 2006. These recommendations were arrived at after wide and documented consultation by the contracted consultants including with my own Company GPS Ireland in 2005. The full report in which these recommendations are made is on the DCENR website here: <http://www.dcenr.gov.ie/NR/rdonlyres/9A989A87-03EA-484E-B0F5-446FCF037D1A/0/NationalPostcodeProjectBoardRecommendationofNPPBonImplementationofPostcodesReport2006.doc> Very specifically, a postcode which is structured to at least small spatial areas (including splitting up postal areas of Cork, Limerick Cities and others) and which is also postal operator neutral as recommended has not been delivered. The full recommendations of the NPPB in its 2006 report officially formed the basis of the procurement process started in Jan 2011 and Eircode differs greatly from the majority of these recommendations. It is normal where the final procured product specification is to differ greatly from that specification laid down in the official tender PQQ, that the tender would be recommended.
- b. In multiple reports during the period 2006-2010 by the contracted consultants, PA Consultants, and also published on the DCENR website, the ABC 123 postcode model was recommended for adoption. This model was also stated as that required in the official tender specification. It was the subject of much media discussion between 2008 and 2011 and I personally have a letter from former Minister Eamonn Ryan TD in which he insists that this was the recommended model and that he had no plans to change it. PA Consultants wrote a letter to the Sec. Gen DCENR in Oct 2010 insisting that the proposed ABC 123 model be adopted as it would support both inward and outward manual sorting of mail, something which they identified as

essential for a postcode to be a postcode. However, inexplicably Eircode greatly differs from this model in both the “ABC” and the “123” element. The ABC element of the proposed design was to correspond to 219 clearly defined An Post post town areas, however the equivalent first 3 characters of Eircode (the Routing key) deliberately does not define any areas at all and is related to only 139 “Principal” post towns thereby leading to a situation, as previously mentioned, that up to 80,000 properties in Limerick will have exactly the same routing key which does not reflect “at least small spatial areas” as recommended by the NPPB. It also means that the routing key on its own would be difficult to use for manual sorting as it does not immediately match the approximate 200 post towns that An Post currently has. In this case, the post town reference that An Post requires in the postal address would also be required to manually sort to that level, explaining why An Post is insisting, and will continue to insist, on the postal address being used and why using Eircode would present additional manual sorting challenges rather than minimising them. It is also one of the reasons why An Post is unlikely to make much use of Eircode for manual sorting;- contrary to PA Consulting’s specification. Of course, it is obvious that no human could manually sort using the last 4 characters of Eircode whose visual randomness can only be resolved by a database via computer technology. Of course, the full Eircode could be used for an automated sort but currently it is impractical for An Post to sort to better than Delivery Office level at its Hubs and only the Routing key is needed for that. There is no automation at Delivery Office level so that the last 4 random characters of Eircode, to identify the postman’s walk and the final destination address, can’t be used for manual sorting there either. Eircode does not, therefore, satisfy any of the specified or recommended features. Once again, it is normal where the final procured product specification is to differ greatly from that specification laid down in an official tender PQQ, that the tender would be recommended.

- c. Paragraph 66 (2) of the Communications Regulation (Postal Services) Act 2011 states as follows: *“The Minister may, with the prior consent of the Minister for Public Expenditure and Reform, enter into a contract with one or more than one person for the development, implementation and maintenance of a system (in this section referred to as the “national postcode system”) for the allocation, dissemination and management of postcodes for the purposes of, or relating to, the provision of postal services and the use of the national postcode system by other persons for such other purposes as the Minister considers appropriate”*. When questioned about his consent for the Eircode contract in PQ [12279/15](#), Minister Brendan Howlin TD stated that the terms of that consent were:
- i. that the procurement was conducted in accordance with public procurement requirements
 - ii. that the winning tender represented value for money
 - iii. that the contract complied fully with the requirements of the Communications Regulation (Postal Services) Act 2011
 - iv. that the costs could be met from within the voted allocations of the Department of Communications, Energy and Natural Resources going forward.

There are many strong arguments that can be made that none of these 4 terms of consent have been fulfilled. However, picking just one, in relation to item no. iii the Act states as follows in Paragraph 66 (3):

The contract referred to in subsection (2) shall specify the terms and conditions relating to the development, implementation and maintenance of the national postcode system and, in particular, shall specify—

(a) the conditions subject to which postcodes may be made available,

(b) the conditions relating to the protection of intellectual property rights,

and

(c) the conditions (including conditions as to the making of charges) subject to which the national postcode system may be made available to any person who may wish to use it.

As the contract for Eircode has not been made publicly available, in spite of being sought, it is not known if these conditions have been met and in PQ [12280/15](#) Minister Alex White TD fails to confirm that they all have been satisfied.

For these reasons, and because all of the listed terms of the Communications Regulation (Postal Services) Act 2011 and the terms of Minister Howlin's consent may not have been fulfilled, Eircode has no verifiable legitimacy in relation to these elements of the Act.

- d. Very significantly, in Paragraph 66 (1) of the same Act, which is available here on line: <http://www.irishstatutebook.ie/2011/en/act/pub/0021/sec0066.html#sec66>, the National Postcode System is defined as follows: *““postcode” means a code consisting of numbers or other characters or both numbers and other characters that identifies the locality of an address and, where appropriate, the geographic location of an address”*

This definition specifically requires that the selected postcode identifies a locality. This is in keeping with the Universal Postal Union's definition of a postcode which states: *“a postcode is a ‘unique, universal identifier that unambiguously identifies the addressee's locality and assists in the transmission and sorting of mail items.”* The NPPB's technical design document for a National postcode specifically refers to localities as a key element of the recommended postcode. The document is available online here: <http://www.dcenr.gov.ie/NR/rdonlyres/F4CFBA0B-36C4-4996-9975-3FB8437460F3/0/NationalPostcodeProjectBoardTechnicalDesignReport2006.doc> In the National Postcode Design Report v4.0, prepared by Capita in collaboration with An Post and completed in May 2014, under Paragraph 1.4.6 Headed “Design Principles” and referring to the Routing Key it states: *“For all other areas [thereby excluding existing Dublin Postal areas just discussed] the Routing Key should not refer to or be associated with the geographic place name or locality in the Irish or English language”*. Throughout the document, much emphasis is placed on the fact that the Routing key will not identify any county, town or any form of defined area. Therefore, as it is clear that Eircode does not identify a locality as required by the legislation, it will not be a legitimate postcode as currently defined. Furthermore, as An Post's existing post town system has High Court sanction and more closely conforms to the postcode definition (it defines a locality and uses the required characters for post town name and Dublin postal areas Dublin 1-Dublin 24), it can be argued that it alone has true legitimacy as a postcode under the Act.

- e. Therefore, if Eircode is implemented in its current manifestation, it appears that Ireland will have two postcodes in operation, one operated by An Post which has

High Court confirmed legitimacy, and the proposed Eircode with extremely questionable legitimacy and which could be legally challenged with apparent ease. The State may, therefore, have great difficulty in insisting on Eircode being used as a property identifier in interactions with its agencies into the future and there also may well be significant implications for the amendments to the Act in the Bill related to Privacy and Data Protection aspects of a postcode currently making its way through the Houses of the Oireachtas.

6. Further Eircode Design Considerations

- a. Eircode bears no resemblance to NPPB or consultants recommendations, it does not satisfy the terms laid down in the postcode procurement tender PQQ of Jan 2011 and rather than being designed since 2003, it was clearly designed in a collaboration between Capita & An Post (the winner and runner up in the postcode tender) in a few months ending May 2014 after the €27m contract had been awarded to Capita and its consortium bid members in December 2013. The design was argued and justified without reference to other postcodes in use worldwide, a needs assessment, international postcode expertise or recognised expertise in navigation, coordinate, positioning or GPS technologies. The National Postcode Design Document v4.0, referred to earlier, is not available online but is available in hard copy and was referred to in the RTE Prime Time investigative piece mentioned earlier. That piece indicates that the document refers to An Post and their specific requirements no less than 100 times and gives no evidence of consultation with any other postal (including parcel) operator in relation to design requirements. This indicates that Eircode's design is not "neutral between postal operators" as recommended by the NPPB in 2006 and as required as result of reference to those requirements in the Jan 2011 tender PQQ. Whilst it is clear that detailed and wide consultation was undertaken to arrive at the NPPB recommendations and selected ABC 123 model in 2005/2006 and this is published on the DCENR website, there is no published evidence of detailed and meaningful consultation with stakeholders, other than An Post, on the design of Eircode. Furthermore, whilst the DCENR website contains details of multiple design and cost benefit analysis studies for the 6 character ABC 123 postcode model intended up to 2011, no such analysis has been equally verifiably undertaken for the 7 character Eircode.

- b. The majority of the contract awarded to Capita and its consortium members is not related to Eircode design at all. Most is related to an address database design, client database matching, cleaning and updating, roll out and ongoing maintenance of the database. A response to queries from the Public Accounts Committee on the matter from DCENR, published on line here: [http://www.oireachtas.ie/parliament/media/committees/pac/correspondence/2014-meeting1310307/\[PAC-R-1444\]-Correspondence-3B.1---Mr.-Eamon-Molloy-Irish-National-Postcode-System.pdf](http://www.oireachtas.ie/parliament/media/committees/pac/correspondence/2014-meeting1310307/[PAC-R-1444]-Correspondence-3B.1---Mr.-Eamon-Molloy-Irish-National-Postcode-System.pdf) indicates that only €2m of the total €27m (7%) is actually being spent on the postcode aspect of the contract itself. This makes it very clear that Eircode is more about creating an address database and maintaining it than actually developing a useful postcode. In keeping with this, many of the Public briefings on Eircode given by Capita and its Consortium members on the subject have been more about the databases, ECAD and ECAF than the Eircode postcode itself. The only notable relevant technical expertise within the consortium is a company which specialised in acting as a reseller for An Post's Geodirectory database and this may explain why Eircode has become more about renovating an existing address database rather than designing and developing a useful postcode.

This was clearly demonstrated earlier this year when, 1 year after it was supposed to happen, businesses and registered interested parties were sent “Eircode sample Data” but this turned out not to contain any Eircode samples whatsoever. Instead, it was more related to the design, structure and content of the related address databases and no reason was given when this was questioned. Ireland needs/needed an improved version of An Post’s Geodirectory and investment was need in that, but this contract was supposed to be about the design, roll-out and management of a National postcode NOT an address database and it would appear that allocated finances have been spent on the wrong product!

- c. Eircode, as designed, is not a modern or “next generation” postcode and could have been introduced a century ago but would not have been as it has no public usability functionality. It is neither a property numbering system that orders and identifies properties visually nor a postcode which guides humans to a locality and then to a destination. A modern postcode, like all modern technology would use the useful elements of existing technology as a foundation and add new capabilities based on modern requirements and approaches. Eircode has ignored all previously recognisable and useful postcode features and has delivered an unstructured collection of characters without useful purpose or foundation. Taking the UK postcode, as used in Northern Ireland, as a recognisable example, here are two postcodes:

- i. BT4 1PW
- ii. BT4 1PY

Simple visual inspection intuitively tells you that both are very close together and by simple iteration without any prior knowledge you would be able to know that another postcode BT 1PP is in the same area and probably close also. All three are 3 separate streets adjacent to each other;- Sydenham Park and Gardens in Belfast City area. Minimal experience in the area and with the postcode would tell you that the iteration is not always perfect as there are crossover points, exceptions and special cases, but, in general, an ordinary person can make good use of this postcode system in their daily lives without special technology in the following ways:

- iii. It is easy to tell if one postcode is in close proximity to another without any technology and simply by visual inspection.
- iv. When arriving at a street with one postcode you can iterate whether you are getting close to or further way from a street with another postcode and therefore adjust your direction of travel accordingly.
- v. By experience you can determine the close locality of the postcode by inspection of the first 4 characters.
- vi. If you move from BT4 1 to BT4 2 you have moved into an adjacent locality, in this case another small and distinct neighbourhood of Belfast.
- vii. You can easily present the code areas on a paper or electronic map for general management and decision making
- viii. As localities are distinct and clearly defined, basic commercial divisions and territories such as franchisee areas can be organised using them
- ix. You can judge easily whether you were in the locality before and if so easily visualise how to get there
- x. As you go to a postcode, you can use the locality clues in the code to visualise areas, streets and landmarks on the way;- thereby supporting natural human navigation techniques. The human never naturally navigates

by absolute destination but by the key landmarks and neighbourhoods on the way. Clues in the postcode to these initiate recalled knowledge of previous journeys and experiences which help find the way and even in strange areas this information is quickly amassed.

- xi. You can visually put postcodes into a rational geographic order for visits by eye
- xii. For large numbers of postcodes you can put them into a rational geographic order using readily available and easily used software such as Excel.
- xiii. Because the UK postcode identifies a street/small locality rather than an exact property, features and destinations that do not receive mail from the Royal Mail also have a useful street level postcode as they are all accessed in some way from a road/street.

All of these basic features make a postcode very useful in ordinary people's daily lives and contribute greatly to its acceptance and widespread adoption. Whilst it is acknowledged that there are other related problems with the UK postcode to be resolved, there is no reason not to ensure that these basic capabilities are not included in a modern postcode. In fact, they are absolutely desirable. Eircode has none of them and seems to have been designed in isolation of knowledge of their existence. Loc8 Code on the other hand includes all of them whilst delivering many new features, leveraging off modern technology to satisfy modern requirements. A related article on LinkedIn by myself titled "Ireland and a National Postcode - The Modern Navigation Requirement" is online here:

<https://www.linkedin.com/pulse/ireland-national-postcode-modern-navigation-gary-delaney?trk=prof-post>

- d. As Eircode has none of the basic functionality of well-established and recognised postcodes, it is totally reliant on technology for interpretation. As an elective consumer product this could be excused but as a piece of National infrastructure designed and implemented for and by the State, it is unforgivable. The State and its agencies have a duty of care to its citizens which dictates that it must look beyond use of national infrastructure in normal conditions when it is designing and implementing. It is for this reason, and as a result of internationally accepted Health & Safety practice that the NRA (on behalf of the State) has implemented SOS phones along motorways across Ireland. If we were to follow the commercial approach indicated by Mr. Liam Duggan of Capita in the Prime Time piece on Eircode referred to earlier, we would assume that everyone always has a working phone with coverage and a suitable app loaded and the State through the NRA would not need to concern itself with its citizens' or visitors' welfare anymore and forget about the network of SOS phones it has established as just a waste of money. But experience in the 9/11 attacks in New York showed that mobile phone networks crash due to overload in a time of disaster and it is for that reason, emergency services across the world, including our own, no longer rely on public mobile networks for emergency communications, but use the dedicated Tetra network instead. It is for this reason, therefore, that the NRA install SOS phones along major roads for the public to use. It is for this reason that designing a National Postcode, Eircode, that is dependent on an always up-to-date database which normally would require good communications for access to it over the internet so as to use it in an "app", is foolhardy and a dereliction of duty of care to its citizens and visitors on behalf of the State. Furthermore, its design such that only properties that have mail delivered by a Postman means that those very same SOS phones cannot have an Eircode to help identify location. It is clear therefore, that Eircode was designed in the absence of

wide and meaningful consultation and without a basic stakeholder needs assessment. There are hundreds and thousands of locations across Ireland that citizens and visitors travel to and congregate at every day that cannot be allocated an Eircode and for that reason, the health and safety of those people has not been considered in the design of Eircode. Mr Duggan, in the Prime Time piece indicated that these were “non core” applications for a National Postcode. Every location on a farm in Ireland is a workplace under the Health & Safety Acts and in those workplaces there were more fatalities and injuries than any other workplace last year, something which is now the focus of attention for National agencies. This is absolutely core to the safety of our population and its economic success. The National Ambulances Service(NAS) being able to get to the site of a farm accident quickly and efficiently is now a major concern and Eircode is unable to assist because of its design. Daily, across Ireland the Fire Services has to be prepared to react to forest fires and it must be able to find its way quickly via 10's of thousands of possible access points to those forests. The forest owners must have them precisely located for insurance purposes and this is core to them, to the Fire Services and to an important economic activity across the country. Yet Eircode has been designed deliberately not to include this type of requirements on the advice of An Post who has no mandate or responsibility to be advising on such matters. In relation to road traffic accidents, there is a suggestion also that Eircode is not a requirement in these instances because a new technology called eCall will soon be mandated for vehicles by the EC. Aside from the fact that eCall is not due for another 2 more years, (the NPPB made its postcode requirement report in 2006) it will only be for new vehicles and it will not support witnesses calling to verify the location and nature of an accident. Those who have been involved with technology for automatically raising an alarm in the maritime world are aware that such systems can result in frequent false alarms. Third party, verification by witnesses is therefore vital to help determine if an automatic alarm from eCall is genuine or not. Mass produced automatic alarm systems have the potential to be a significant drain on emergency services resources if not managed and such management will include the use of 3rd party witness information. Therefore, excluding consideration for the support for RTA's along our National road network from the design of Eircode on the basis of the arrival of eCall is not rational in any respect. Of course, eCall too will rely on mobile phone networks and coverage issues will always be a concern.

So in all these cases there is no legitimate reason for excluding related capability in the Eircode design. They are equally “core” considerations as much as that of designing a postcode for a rapidly declining mail business on the almost sole recommendations of An Post who will have very little use for the postcode themselves anyhow. Of course, it is not possible to cover all possibilities to perfection with a postcode design but understanding what core issues are is a good starting point.

- e. As the implementation of Eircode is not part of a simultaneous campaign to fix the Irish property addressing system, Eircode will not be visible on properties. The large volume of ambiguous addresses in Ireland is quoted ad nauseam by those promoting Eircode as some sort of justification for the Eircode design. Firstly, the solution to the ambiguity problem is proper management of property addresses and their use, as discussed in my paper “Irish Postcodes;- WRONG WAY TURN BACK” referred to earlier. Secondly, those quoting the problem do not really understand what it means in practice. It means that that finding the correct locality of an

address is difficult in many cases, made more difficult by An Post removing true geographic clues in many cases by insisting on post town based postal addresses, and when you get to a group of properties because there are no visual markings (more difficult at night) it is impossible to visually decide which one is the correct one. This is why An Post prefers to use local knowledge and owner names as the basis for delivery. Eircode will not resolve this visual ambiguity problem at all, and the problem is much higher than quoted because many who do have property numbers do not display them at all. This is all a mild inconvenience for the occasional traveller in Ireland but a major cost to businesses and a major risk to life for the emergency services who, because of reorganisation, are rapidly losing the benefit of local knowledge. Because Eircode has no visual intelligence built in, because it has no useful inherent localities that can be displayed on road signs and on street furniture such as poles, bridges, SOS phones, directional and speed signs and much more, the user of an Eircode has to be totally dependent on technology to resolve ambiguity and find a property. I have already covered the difficulties with depending on the mobile phone network, but also Eircode is totally dependent on GPS for its interpretation even in most basic ways. Those who have professional experience with GPS will be aware that:

- i. It will not navigate the user to the Eircode for an apartment in apartment block which has its own Eircode but the block itself has none.
- ii. Depending on receiver type, software, satellite networks used, enhancements, form of transport deployed on, environment and the skill of the user, it may not be able to distinguish one building from another whether they be adjacent, back to back, one over the other or across the street from each other.
- iii. Those who navigate in the professional world, are well rehearsed in the idea that one technology must be used in conjunction with others in order to avoid errors, delays and issues related to equipment failure. In the professional world it is well recognised that the GPS signal is very vulnerable to interference and denial whether deliberate or accidental. To counter this vulnerability, backup including with enhanced non satellite based technologies, are being implemented. These are unlikely to be available for personal devices for quite some time. Some background information to this is available online here: <http://gpsworld.com/bill-supports-elorán-as-gps-backup/>

As result, the very fact that Eircode is totally dependent on GPS for even basic use, will make it often unsuitable to resolve address ambiguity and extremely vulnerable to being unusable in certain circumstances. As a key piece of National infrastructure, therefore, it is poorly designed to meet the needs of the emergency services and those who would unwittingly try to develop and grow their businesses based on its capabilities. It has no failsafe. A failsafe for a National postcode is the ability to use it in a manual way – by eye and by reference to signage and maps. Again, as Eircode has no inherent visually intuitive and iterative qualities and because it has no defined areas or useful localities, it cannot be used by eye or in a useful way by reference to signage or paper maps. Loc8 Code does not suffer from these issues because of it is designed to recognise these requirements.

- f. This issue relating to the fact that the last 4 character of Eircode being visually random is also frequently raised. Whether Eircode should be sequential or not was

first raised by Capita themselves in their design considerations post contract award in Dec 13 to May 14. In response, An Post said they did not need it for postal purposes and therefore recommended that it should not be applied. Strangely they recommended the opposite for the Routing Key. An Post did not recommend a sequential code because they will never use the unique identifier (last 4 characters of Eircode) for delivery;- they will continue to use occupants' names and local knowledge to achieve deliveries. However, no consideration of the requirements of other national stakeholders was taken into account.

The truth is that an exact sequential code is not required at all. The human brain is more than flexible enough to deal with imperfect sequences. All it needs to know is whether it is getting closer or moving further away so it can adjust the direction of movement and to judge rough proximity as it can do with the UK (NI) postcode samples mentioned earlier. Of course, if a postcode is designed on the basis of a geographically aware grid system, as Loc8 Code would propose, then order is naturally accommodated even if the property count is densified. The natural order of a grid based system is displayed by a comparison between Eircode and Loc8 Code for a street in Dublin in Annex A attached. Perfection in this regard is not needed or possible so all that is required is clues as to order, proximity and adjacency. In the case of apartments, as the code provides no useful purpose for locating the apartment, it is enough to provide a code for the apartment block and continue with the use of an apartment number as a unique identifier which is recognised international practice. If not to be unreasonably over dependent on GPS, then locality, street and property signage is required also and as this is not possible or proposed in the case of the Eircode implementation, then discussion about potential broken sequences if made sequential is a moot point and no more than a red herring. Mind you, a suggestion that the solution to the potential of occasional and mildly problematic broken sequences is to make something completely visually random is pure irrational nonsense. Again, for all these reasons, Eircode does not resolve address ambiguity.

- g. The deliberate exclusion of localities from Eircode, contrary to legislative requirements, and the resulting limitations of the code have already been covered. In the NPPB recommendations of 2006 referenced earlier, this requirement is referred to as the code being "structured to at least small spatial areas" However, one of the arguments used against implementing this has been the idea of introducing "postcode ghettos". Whilst the term used exaggerates the nature of the issue being raised, the general concept is understood. This concept occurs when areas are notionally and manually grouped, normally on the basis of a postal operation. The choice to not provide useful localities in the code at all because of this is not justified under any circumstances. The solution is an easy one. It is to not make the defined areas notional or operational but instead to achieve them in a purely geographically mathematical way. In this way, they cannot be argued or negotiated. As a result, property groups such as streets and estates may well be split by the divisions but this enhances the deliberate mathematical quality, and it removes the human tendency to try establish associations by structural similarity and any possibility for change lobbying. This is achieved successfully in Loc8 Code and the resulting localities are small enough to be useful on their own and also by aggregation. Eircode's approach to the solution makes the code less than useful. Furthermore, as routing areas are optionally and operationally expansive with no defined boundaries or extents (no geographic centre or limiting polygon) and applied, not by area association but, by which postman will serve an individual

house, it opens the possibility that a Routing Key can be bought. It also means that a routing key cannot be anticipated in advance of allocation of a full Eircode for a new or temporary build and it lends itself to the idea that routing keys can be negotiated to appropriate the value of newly zoned green field sites. It is easy to conceive a situation where properties and business owners at the external limit of the proposed Limerick 80,000 property Routing Key would seek to be included so as to ensure their address appears to be associated with Limerick City rather than county;- something that can be especially valuable for a business. Once again, I believe Eircode has taken the wrong approach to its design and thereby contributed to the less than useless nature of the code.

- h. Eircodes refer to occupied property geometric centres. For most real applications, logistics, emergency services, services provider etc, it is the location of the property entrance that is more desirable and appropriate. A modern postcode which is to be used for other than mail delivery must have the flexibility to deal with this requirement. Eircode does not have this flexibility whilst Loc8 Code does.
- i. Mr. John Touhy, of Nightline is quoted as suggesting that Eircode “ is structured so that any tweaks which are required can be made over time”. He made this comment to Post & Parcel in opposition to Meath County Council’s unanimous call for the code to be scrapped. The full report is online here: <http://postandparcel.info/65076/news/county-council-calls-for-irish-communications-minister-to-reopen-eircode-tendering-process/> Firstly, if it is the case that after 13 years of postcode boards, consultants reports, tenders and design considerations we accept that tweaks would be required after implementation, then we also must accept that those who are responsible really have not done their job. Saying that a postcode will have to be tweaked after implementation is akin to accepting that a red and green Luas line will be built unconnected and at some point in the future there will be enormous disruption and cost to make the connection that was always required. Every little tweak to a postcode will cost money and inconvenience to all users;- updating sortation systems, procedures, software, databases, navigation systems and even company stationary. I can understand Mr. Tuohy’s frustration to see something delivered after what he calls “An Post’s protectionist stance” but implementing a bad postcode is not made better by “tweaking” it after implementation.
- j. Finally, the Eircode design is no more than a paper/desktop exercise. It is has never been subjected to a real world proof of concept or trialling. In April 2014, PA consultants were awarded the oversight contact, part of which was to ensure that the code itself was fit for purpose. Given that they previously identified the ABC 123 code as the optimised solution for Ireland and insisted that the only suitable postcode was one that supported manual inward and outward sorting, it is difficult to understand how they could assess Eircode as fit-for-purpose. However, neither public report nor statement on fitness for purpose has ever been made by PA Consulting. In every other country where a postcode has been implemented, a Pilot in a small geographic area to prove the design and implementation plan has been run first. If it is to be done at all, the “tweaking” suggested by Mr. Touhy should be done after a limited pilot test. In his evidence to this Committee, Mr. Touhy but significant emphasises on piloting the code and the implementation phase, but his recommendations in this regard appear to have been overlooked. Mr Touhy’s related recommendations are online here:

<https://www.kildarestreet.com/committees/?id=2014-12-10a.561#g586> Contrary to Mr Touhy's recommendations in relation to a pilot, none is proposed for Eircode as it is suggested that it is not required because "An Post already knows how to deliver mail". This makes it clear that the purpose of Eircode is neither to enhance An Post's operation nor to offer useful functionality to anyone else.

7. Main User Groups & Support for Eircodes

As Eircode only applies to properties where mail is delivered, 100's of thousands of sites where locals and visitors visit and congregate daily across the country will not have an Eircode and therefore, many sectoral needs, including Health and Safety needs, related to all those using these locations have not been addressed by Eircode. A non-exhaustive list of these sites is contained in Annex D. The reaction of many user groups to Eircode and its limitations has been well covered in the media and presented to this Committee, so my detailed input on their behalf is not required. However, it is appropriate that I would make some notes on related issues:

a. The Emergency Services

In order to respond to an Emergency 999/112 call our emergency services must first have a call routed to them via ECAS, the Emergency Call Answering Service which is contracted by COMREG and currently delivered by BT. The need to collect location information in relation to a call starts with them. If they are not supporting Eircode, then this will present problems for all of the related services;- Gardai, Fire Service, Ambulance Service & Coastguard. In an initial consultation document on Caller Location ID, published by COMREG earlier this year, two things became obvious in relation to Eircode:

1. The telecoms companies, including Eircom and BT who provide ECAS services, had very little information on Eircode, suggesting that they had not been consulted or briefed, in spite of the fact that when Eircode was announced in early 2014 much was made of its uses for the emergency services.
2. They were not in a position to confirm that they would adopt and support Eircode, both because of 1. above and because it was not mandatory to use and may not achieve wide use.

The point is also made in the report, that when location information is transmitted electronically the means by which location information is expressed is not important as it is not being handled manually. However, it is highlighted that in every emergency scenario there is a possibility that location information may well have to be communicated manually or verbally to someone in the emergency response chain. It is for this reason that a national coding system capable of being used for this purpose and in all cases, whether postal property or not, should be adopted. Eircode is not suitable for this purpose, whilst Loc8 is and is already being used. The full report is available on line here:

http://www.comreg.ie/publications/emergency_calls_-_caller_location_information_setting_criteria_for_accuracy_and_reliability.583.104711.p.html

Attached as Annex B, find a letter from an Emergency Planning Manager in the HSE who coordinates the response of the emergency services, the Local Authorities, major National agencies and major industries for major emergencies. The letter indicates that Loc8 has been successfully used for their purposes for some years and

that they will continue to do so even if Eircode is implemented. This highlights that those behind Eircode have failed to consult with the major emergency needs of the State and missed a unique opportunity to introduce a national postcoding system which is capable also of serving these needs.

- ii. Gardai :- I have installed Garmin Satnavs on Garda vehicles to be used with the inherent Loc8 Codes feature for the locations of elderly and otherwise vulnerable people. Before the units could be used, the Garmins with the coding system had to undergo evaluation and testing in the College in Templemore. Those who might suggest that the Gardai are supporting Eircode probably are not aware that to be able to adopt and use Eircode, the code and the device it is to be used on would have to go through several approval steps first before adoption in vehicles.

- iii. The Fire Service;- As mentioned earlier, the Fire service in Ireland has to be able to get to a particular forest entrance quickly when called every day. This is as much part of their core responsibility as house fires. There are 10's of thousands of private and State owned forest entrance points across the country and all of these need to be quickly identifiable. This cannot be done by Eircode because of the limited design focus but it is already being done in some cases by Loc8 Code. It would be expected that before the Fire Services could support and adopt Eircode they would have to test it for their needs. It is not clear that that has ever happened, and if so it should have happened as part of a proof of concept in real and simulated scenarios before the Eircode design was finalised.
It is also noted that part of the budget allocated to Eircode by DCENR is being spent on updating databases in State agencies. However, no funds have been made available to the Fire Services or the Local Authorities where they reside for the specific implementation of Eircode.

- iv. The National Ambulance Service (NAS);- Much has been made of claims that the NAS is supporting Eircode. I attach as Annex C a letter from the Director of the NAS dated 14th November 2014 where he states that he never said that Eircode would address all his Service's needs in terms of rapid access to patients and he goes on to say that he is not in a position to discuss the subject in depth. This letter was issued at a time when evidence was being given to this Committee that Eircode had full NAS support. It is very clear that no Director of any State agency, especially one involved in the delivery of emergency patient care, would make a decision to support a new technology without having an in depth knowledge of it. Nor would they consider investing in that technology without extensive testing. I am sure that if testing had taken place, then the NAS director would then be in a position to talk about Eircode's uses and benefits for his organisation in depth and, it is my information that Eircode has never been tested in real or simulated scenarios, from ECAS call to arrival at the call destination, by the NAS.
It is also noted that part of the budget allocated to Eircode by DCENR is being spent on updating databases in State agencies. However, no funds have been made available to the NAS for the specific implementation of Eircode.

- v. The Coast Guard;- The Coast Guard does not attend to where mail is delivered and therefore, Eircode has little value to it. It's responsibilities extend along waterways in all of offshore, coastal and inland areas and can therefore, use a coding system along beaches, coastal paths, inland waterways, lakes and bathing areas, piers and marinas and Loc8 Code is being used on ringbuoys with the support of Irish Water Safety in some of these areas.

It is also noted that part of the budget allocated to Eircode by DCENR is being spent on updating databases in State agencies. However, no funds have been made available to the Coast Guard for the specific implementation of Eircode.

b. Logistics Sector

This sector is likely to be the largest day to day user of a postcode with the most value to be gained from one;- including allowing it grow and manage itself efficiently in response to the significant demand for its services over recent years. It competes directly with An Post in the lucrative parcel market, the only element of the delivery market where An Post currently generates profit. The needs of the sector have been loudly represented by the FTAI to this Committee and they have indicated that they will not be using Eircode. Their needs extends from to high end route optimisation needs to react to the growth in online purchases and home delivery markets, to the man in the man scenario who has needs very similar to the ordinary citizen and visitor user. He expects to be able to look at a postcode, compare to another to make simple decisions and visualise basic order and routes without recourse to any technology, as explained by reference to the UK postcode earlier. With the basic functions of a postcode identified, a van or truck can be successfully loaded in the order of a day's work by eye.

In understanding the needs of this sector, it is important to understand that it does not always deliver to properties and even if it does, very often it is more interested in entrances and access points rather than property centres. Very often, if delivering to retail outlets, this is not achieved by arriving at the shop front along a busy main street, but instead by approaching from a side or rear entrance. Eircode does not have the flexibility to deal with this requirement, but Loc8 Code can. This is as much a core use of a postcode as a postman delivering door to door using local knowledge without any need to refer to the postcode at all.

It is not appropriate that the Minister and his officials be prepared to plough on with Eircode, ignoring the concerns of the FTAI and its members on the basis of the support of only one representative of this sector. As explained previously, the same representative has suggested that Eircode has emerged from an An Post protectionism stance and may need tweaking after implementation. He also expressed concern about the implementation of Eircode and recommended that it should be subjected to a pilot but this part of his comments has been ignored.

c. Farming & Forestry

Members of this sector contribute enormously to the Irish economy, yet Eircode does not apply to most of the areas they work in. Every farm and forest is a workplace subject to Health and Safety law and practice. In 2014, farms suffered 30 fatalities and therefore are the subject of a major focus to improve Health and Safety. Part of this has to be to ensure the Ambulance Service can find their way to casualties quickly. The Fire Service has to be able to get to forest entrances quickly and both services have to be able to get to forest infrastructure where more and

more of the general public and tourists are recreating nowadays. There is a duty of care on the state to support these requirements but Eircode has failed to even consider them as “core” or important let alone satisfy them. Loc8 Code has the flexibility to address these needs.

d. Tourism, Angling & Heritage

These sectors contribute enormously to the Irish economy and in many cases Eircode will not support their requirements. The angling sector alone contributes more than €1 Billion annually to the economy. By its nature, related sites are remote and not served by Eircode even though there is also an obvious health and safety need associated with them. Signage with a coding system in the same way as Loc8 Code has done for ringbuoys would solve this problem. An example of this is shown in Annex E

e. Irish Citizens & Visitors

It has been well established in this document that Eircode offers little to ordinary people on a day to day basis. Because of this, Eircode is unlikely to enjoy wide adoption and take-up amongst the general population. For this reason it will also not be normally sought by business interests during transactions for fear of annoying or inconveniencing their customers and possibly resulting in a loss of a sale especially in online retail scenarios.

f. An Post

It is pretty clear that An Post will make very little use of Eircode in their operations;- Hubs, Delivery Offices and by Postmen for deliveries. It is true however, that An Post controlled the design of Eircode and ensured that:

- i. Eircode is of little use to competitors or society in general
- ii. That it only serves where An Post delivers mail
- iii. That the related databases are based on Postal addresses rather than true geographic addresses
- iv. That the related databases can only be kept up to date using An Post’s services including postman’s knowledge and intelligence and via their own product Geodirectory
- v. That their post town postcode system will continue to be used
- vi. That Eircode will be optional and therefore infrequently used
- vii. That An Post maintains the right to adjust postal addresses
- viii. That An Post has achieved legislative support to maintain a database containing addresses and personal information for property occupiers
- ix. That the playing field has not been levelled by a postcode after liberalisation of the postal market as original intended when a postcode for first seriously considered in 2003
- x. That the postcode does not support small spatial areas and is not neutral between postal operators as recommended by the NPPB in 2006.
- xi. That An Post will receive an ongoing revenue from Eircode

8. Eircode Implementation

Loc8 Code has its own proposals as to how it would implement a National postcode which have never been heard. I do not propose to reveal those proposals here but I would like to highlight briefly why Eircode may well have a communication plan but has no National postcode implementation plan.

- a. As previously stated, Eircode proposes no pilot as has been undertaken in every other country when a postcode was to be implemented. The Emirates, Uganda and Tanzania are recent examples where a postcode pilot was carried out prior to full roll-out.
- b. In an implementation plan, both citizens and businesses would form a key part of proofing and testing in advance of confirming the design
- c. Recognised and popular related consumer technology companies would be included in implementation plans. Neither Garmin nor Tomtom have plans to deliver Eircode on their systems at launch. In both cases, previous proposals put forward by the person who lead the Capita bid for Eircode were dismissed by them.
- d. Government agencies and Local Government would be fully briefed on all aspects of the proposed postcode including potential hic-cups and objections with related budgets and supports in place to deal with these. No such briefings, plans or budgets are in place.
- e. For full implementation, there would be a plan to implement related signage across the country. There are no plans and no budgets for Local Authorities or the NRA to implement related signage in their areas of responsibility.
- f. There would be negotiated and agreed cross Government agency plans and procedures for implementing the postcode in its widest possible sense. Formal plans would be in place with the NRA, HSA, RSA, Local Authorities, Business and representative bodies to ensure the postcode is adopted, required and used within their organisations
- g. Public representatives, Ministers, TD's, Senators, Councillors & County managers would be briefed on potential pitfalls and objections and all would be ready to deal with them.
- h. There would be failsafe plans determining exactly how the postcode could be used in the absence of technology such as mobile phone networks & GPS.
- i. A summer launch when many are away from their homes would not be planned
- j. Plans to deliver postcode details to property owners as well as occupiers would be in place;- private owners and landlords and Local Authorities included.
- k. Contracted milestones and factors for measuring success would be in the public domain
- l. There would be associated plans to control and manage the National property addressing system with a related State agency in place.

9. Implications of an Unsuccessful Eircode Implementation

- a. With the continued centralisation of Emergency response control and the continued loss of local knowledge, an opportunity to maintain and improve response times, health and safety and public safety for Irish workers, citizens and visitors will have been lost
- b. Misinformation about the capability and functionality of Eircode will lead to further complacency about the control and management of Irish property addressing and, with the projected increase in population resulting in a potential 50% increase in the number of properties over the next 30 years, there is a real potential of risk to lives because of the combined lack of functionality of the postcode and property addressing in association with the centralisation of emergency response.
- c. No level playing field in the postal (parcel) market with no fair competition, resulting in a missed opportunity to improve delivery performance and costings for businesses and the public and to support economic growth to the full potential of what remains a rural economy

- d. Logistics businesses will be unable to deal with the rapid growth in deliveries from online sales in an efficient way;- thereby adding to costs, limiting growth and adding to customer dissatisfaction.
- e. The potential to encourage visitors and tourist to explore more of the country away from the main arteries using a flexible and functional postcode will have been lost
- f. An opportunity to fully support people working from home and in non-urban areas will have been lost
- g. An opportunity to add a key part of National infrastructure will have been lost and a second chance is unlikely to present itself for decades if ever
- h. Neither the State nor Irish Business will receive a return for its investment in Eircode
- i. Eircode will only be used in interactions with the State with respect to property based taxes and charges but even this can be challenged as under the current legislation Eircode has questionable legitimacy.

10. Conclusions

Eircode is not the postcode recommended, tendered for, needed, wanted or one that will be used. It has been suggested that it is merely the result of an An Post protectionist stance, causing it to be of little use to themselves and of no use to anyone else. Contrary to suggestions, it is not the result of economy wide and detailed consultation. It is not business or citizen friendly. It will not successfully resolve Ireland's ambiguous addressing problem. It has been widely criticised, including recently by a competent international association in form of GADA but there appears to be an intention to steam roll it through and ignore, without engagement, all concerns and criticisms. The person responsible for leading the winning Capita bid for Eircode recently referred to Eircode on his own website as a traditional postcode and therefore not the historic and next generation code that has been claimed. There appears to be a significant degree of misleading information presented in public by those promoting and supporting Eircode. Its design is without even basic functionality and without the capability to be used in core elements of Irish society and economic activity. It has never been tested or proven in real scenarios for the applications it is supposed to support. If implemented, Eircode will not support the economic development and job growth that a good modern postcode has the potential to do.

It is difficult to understand how Eircode can be allowed to proceed on the basis of information previously presented to this Committee, on the basis of the recent international GADA assessment and on the basis of this presentation. For all these reasons, Eircode implementation should be now halted in favour of an immediate enquiry/review.

11. Recommendations

I would urge the Committee to take time to read this presentation in detail. A National Postcode & Eircode is a very technical subject and it needs detailed examination of all the facts so that the correct decisions are made. Given the detailed criticisms of Eircode that this Committee has now heard from multiple organisations, it is incumbent on it to react and make its own urgent recommendations. Those recommendations should be in two parts as follows:

a. Related to Halting Eircode Implementation

- i. It is not too late to halt Eircode. Only €2m has been spent on the code itself so it is easily replaced and Loc8 Code has offered its proven and tested coding system to be adopted as a National system for FREE on two previous occasions. All other expenditure related to Eircode is not wasted and can be used with any postcode and the contractors can be maintained, probably with simply the addition of a postcode supplier

- ii. Based on information identified here, Eircode may not have the legitimacy in relation to the Communications Regulation (Postal Services) Act 2011
- iii. Ireland can do a lot better than Eircode
- iv. Ireland is already becoming the focus of international attention for the wrong reasons (akin to PPARS and eVoting) because of Eircode, so stopping it will save our National image and a very large potential waste of resources and opportunity.
- v. If halted, Eircode and the process must be subjected to an immediate independent review with the view to quickly identifying an alternative postcode

b. Related to Letting Eircode Proceed

- i. The Comptroller and Auditor General is currently investigating Eircode and has stated to the Public Accounts Committee that his office will decide whether to report or not in September 2015. It is reasonable to suggest that Eircode should not proceed until this decision is made
- ii. The contract for Eircode must be released and assessed. There is no legitimate reason to suggest it is commercially sensitive and details in the contract must be confirmed to ensure compliance and legitimacy with respect to the Communications Regulation (Postal Services) Act 2011 and the terms of Minister Howlin's consent for Eircode given in accordance with Act.
- iii. Eircode should not proceed until it is officially declared Fit-For-Purpose by PA Consulting in accordance with the oversight contract awarded in April 2014. Such a declaration should be accompanied by appropriate justifications and methodologies.
- iv. Eircode cannot be tweaked after roll-out so a Pilot test in a limited geographic area to identify any related issues and make corrections to the code and the implementation plan must be undertaken.
- v. This Committee should invite Mr Prescott of GADA to appear before it and on completion make recommendations with respect the future of Eircode
- vi. A proper National implementation plan for Eircode to include all relevant National agencies (NRA, RSA, HAS, HSE, Local Authorities etc) should be published to include how Eircode will be displayed in buildings;- public and private for safety purposes.
- vii. An Eircode for apartments is not required and an Eircode for apartment blocks must be provided
- viii. Failsafe solutions for the use of Eircode must be published as part of implementation
- ix. Misinformation about the capability of Eircode must be countered so that no further complacency in relation to the management of National Property addressing is encouraged thereby causing an increased potential for loss of life in emergency scenarios.
- x. A National Address Agency must be established to separately fix property addressing and related standards and to ensure that new addressing for the 1 million new properties and buildings projected over the next 30 years is to the highest international standards with public safety as the number 1 concern.
- xi. The Geodirectory and related ECAD/ECAF databases should all then be combined and entrusted to the National Address Agency for the future.

- xii. All IP related to Eircode must be ensured to be in the ownership of the State. It is understood that the trademark for Eircode is currently owned by Capita.
- xiii. If Eircode does not apply to many areas, there is a need for the State to take responsibility for another additional coding system to address the needs of these areas. If not, there will be multiple codes in circulation with related confusion to the point that none will be useful. It should also be ensured that those who have in any way contributed to Eircode are not involved in developing, promoting or delivering any competing coding systems.

Gary E Delaney

MSc (NT), FIN, FIS, Lt NS (Ret'd)

CEO Loc8 Code Ltd & GPS & Positioning Consultant

Annexes A, B, C, D & E attached below

Comparison Loc8 Code (NP5-15-TL7) & Proposed National EIRCODE (D12 MK23)

(Loc8 Code Exact – EIRCODE as per design as announced with examples by GAMMA for Dublin)



Loc8 Code: NP5-15-TL7

EIRCODE: D12 MK23

NP5 - Zone, TL7 – Locality with Checker (similar house to house),

D12 – Postal District (recognisable Dublin only),

15 - Precise Location Code (Property ID)

MK23 – Random Coded Property ID No. within District



Feidhmeannacht na Seirbhíse Sláinte
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19th March, 2014

TO WHOM IT CONCERNS

We have been asked to comment on Loc8 Codes and their use in Emergency Management in this region.

We find them very useful, so much so, that we have incorporated Loc8 codes into all the external emergency plans for critical installations in the region; ports, airports, Seveso sites, key assets and critical infrastructure. Even with the introduction of implementation of a National postcode we hope to continue to use on Loc8 Codes since many locations that we need to clearly identify do not have and will never have a letterbox code or indeed a postal address.

We have used them over the past two years and have found them to be precise and they can be used with SatNavs to save valuable time locating and navigating to specific points anywhere on the island of Ireland.

We have found them particularly useful in reducing inputting errors since they have an alphanumeric format rather than an all-decimal or the more traditional degrees and minutes which may be unfamiliar to general users or emergency staff under stressful conditions.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Peter Keane'.

Chief Emergency Management Officer

HSE South



Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive



25th November 2014

[REDACTED]

Re: Eircodes

Dear Mr [REDACTED]

I would like to acknowledge receipt of your numerous emails in relation to the Eircode initiative that at present is being developed.

At no stage has the NAS or myself outlined that this system is the answer to all our needs in relation to rapid access to patients etc, however it is a mechanism that will assist and fill the void that exists at the moment.

Whilst I appreciate that you and your company have reservations and concerns regarding the system that will be introduced, I would recommend that you refer to the Department of Communications, Energy and Natural Resources, 29-31 Adelaide Road, Dublin 2.

This department is the lead agency on the rollout of this initiative and any and all concerns should be directed there. As such I would not be in a position to discuss the initiative in the depth that you may require.

Yours sincerely

Martin Dunne
Director
National Ambulance Service

Seirbhís Náisiúnta Otharcharranna
Teach Dara, Ascaill an Crann Teile, Páirc na Mílaoise, Nás na Rí, Co. Chill Dara

WHAT'S NOT AN ADDRESS & WILL NOT GET AN EIRCODE

Milking Parlours, Farm Fields Beaches & Bathing Areas, Inland Waterways, Piers, Marinas & Berths
Forest Entrances & Walks, Walking Trails Masts, Wind Turbines Picnic & Tourist spots, Heritage
sites, Outdoor Music & Sporting events Farmers Markets, Car Boot Sales, Grain Silos Water
Infrastructure Work Workshops Outdoor Carparks Emergency RV Points, SOS telephones On
Motorways Bridges, Luas Stops, Lay-By's Road Accident Sites, Rail Accident Sites Level Crossings
Popular Angling Spots Play Grounds Many Churches & Graveyards Except for Admin Buildings on
Industrial, Education, Health, Accommodation, Sporting, Military & Tourist Campuses Roadways,
Construction sites, Ghost estates, Houses under construction thousands of GAA, Soccer & Rugby
pitches around Ireland – SO THOUSANDS OF BUILDINGS, WORKPLACES AND PLACES WHERE
LOCALS AND TOURISTS CONGREGATE DAILY AROUND IRELAND WILL NOT HAVE AN EIRCODE
SIMPLY BECAUSE A POSTMAN DOES NOT VISIT. IT IS A DISMISSAL OF WORKPLACE HEALTH &
SAFETY AND PUBLIC SAFETY NEEDS. IT IS A DERILICATION OF THIS GOVERNMENTS DUTY OF CARE
TO ITS CITIZENS AND VISITORS



Notes: