

Submission to Draft NMP consultation

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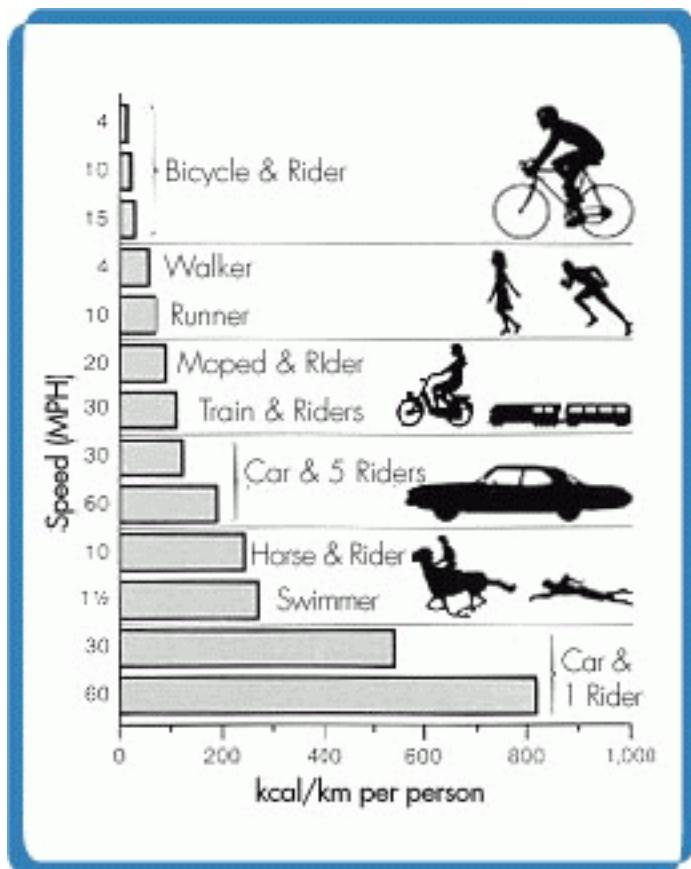
In the short to medium term, a mix of the humble bicycle and electric bicycles have the strongest potential to decarbonise the majority of transport journeys undertaken each day in Ireland, and cycling also has a key role in supporting public transport to decarbonise longer journeys, but there are a number of main barriers to unlocking the potential.

To expand on the above, this submission is split into two parts:

- 10 reasons why cycling is Ireland's only hope for low-carbon transport
- 6 problem areas with cycling in Ireland today and solutions

10 reasons why cycling is Ireland's only hope for low-carbon transport

1. Cycling is the most efficient mode of transport, bar none



"Walking is the most sustainable form of transport" is a statement in the Irish Design Manual for Urban Roads and Streets. Researchers, however, point out that cycling is the most efficient — and even uses less than half the energy as walking, when cycling is faster (see [here](#) or [here](#)).

Electric cars are not shown on the image, but they cannot compare to cycling. One Irish study on transport emissions showed that fully-loaded peak-time Dart trains come close, but do not even match the humble bicycle.

2. There's reasons beyond the environment to cycle

Both for people to take up cycling, and for the Government to invest in high-quality cycling networks, there's more than a few reasons why cycling has benefits for individuals, the state, and for business. When there's a network of high-quality cycle paths in place, then cycling can be seen as a mode of transport which is: cheap, fast, convenient, healthy and fun.



“Good for environment” is a low-level selling point to Dutch or Danish people who cycle on mass — the same is likely to be the case in Ireland. But when roads and streets are retrofitted, there's many selling points to convince people to cycle.

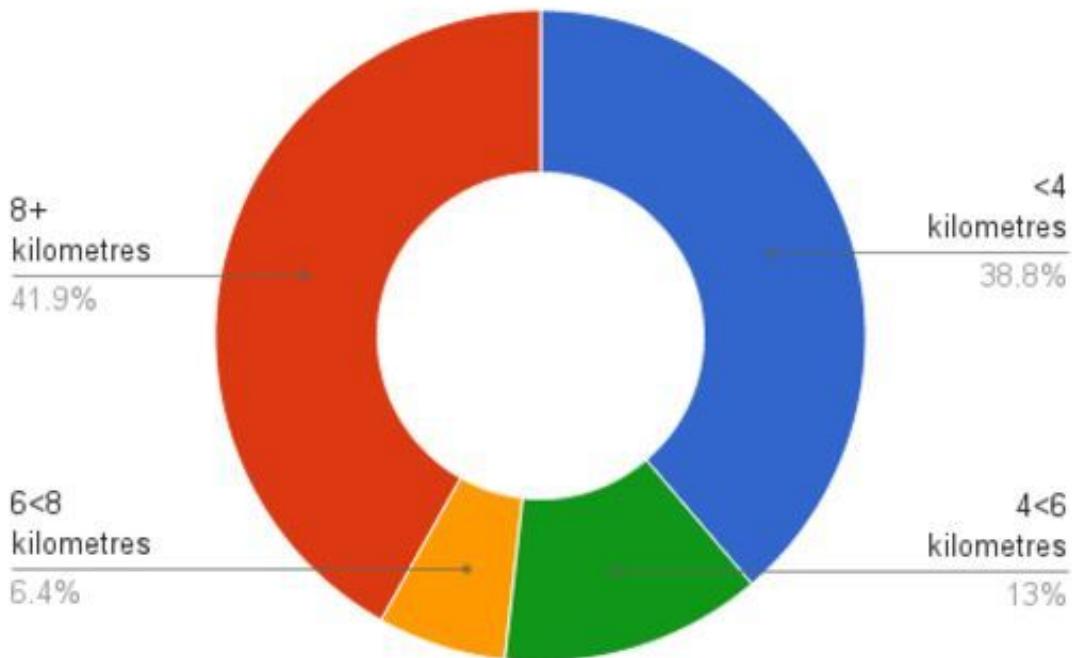
Topping the list of benefits to society are the many health effects for individuals and for the health system — active travel builds exercise into people's daily life and helps prevent obesity, heart disease, some cancers, and some mental health issues. But this does not rank highly when people are asked in cities with high modal share of cycling

A close second and possibly the top economic reason for cycling for society is the congestion tackling benefits — our towns and cities just don't have the space for continued mass car use and planning for cars (even electric cars) means more environmentally unfriendly office and apartment buildings with large car parking and more and more roads.

3. Cycling suits a large percent of distances most people travel

Nearly 60% of trips taken nationally by people over the age of 18 are within easy cycling distances — while not everybody is able to cycle all the time, where proper cycle paths are provided a wider range of people will see it as an attractive option. The data is from the 2014 CSO travel survey (which for some reason excludes shorter trips by children and teenagers to school):

Distance traveled (CSO National Travel Survey 2014)

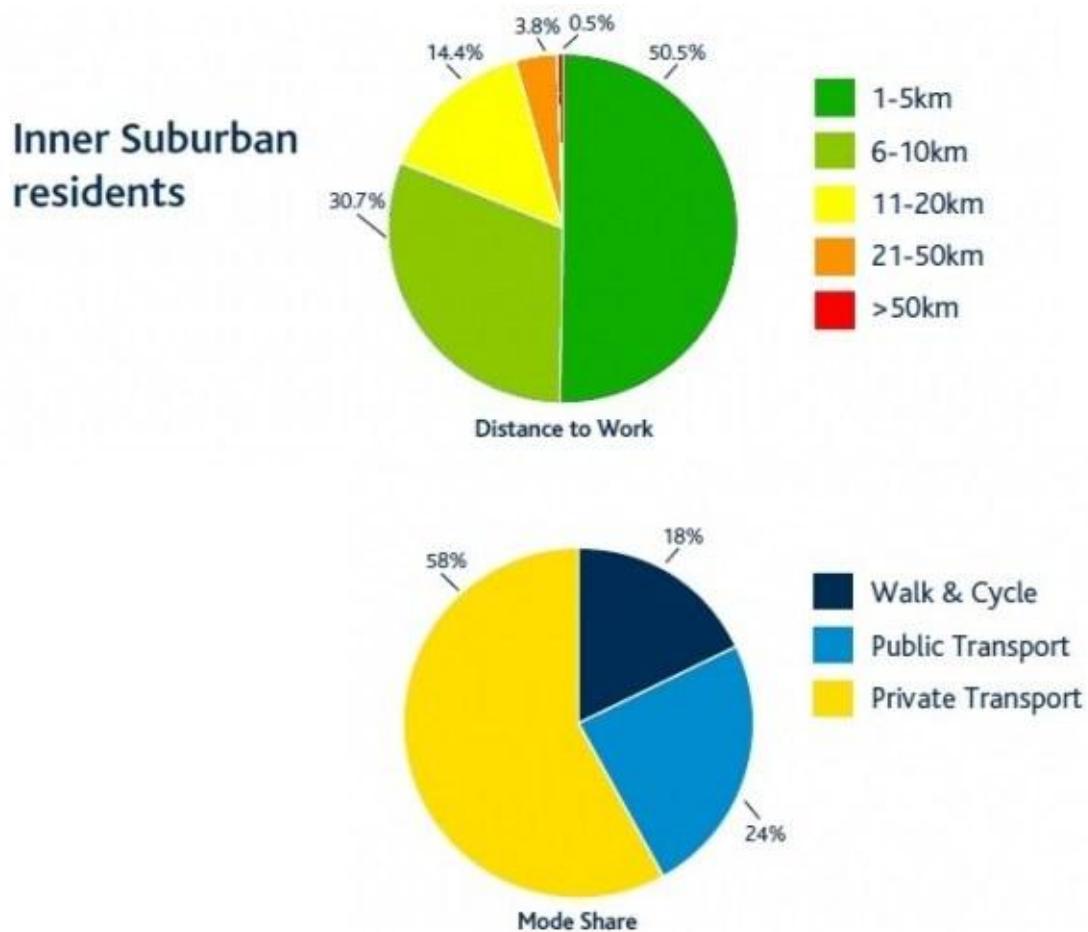


Just to give an example of what these distances are like in time: Based on the last Census which recorded people's estimated distance traveled, the average cycling speed within the M50 in Dublin was 14km/h (which is on the low side for many / includes many traffic lights). Going by that it would take:

- 18 minutes to travel 4km
- 25 minutes to travel 6km
- 34 minutes to travel 8km
- 43 minutes to travel 10km

8km is likely towards the higher limit for most people commuting by (non-electric) bicycles, but people will travel further on high-quality, uninterrupted routes (like greenways along canals, rivers and bays, when designed right). Some people are also willing and able to go further and faster on conventional bicycles, and a wider range of people to do the same on electric bicycles which can make longer distances more attractive by bicycle.

4. Cycling's low hanging fruit is still on the tree



Taking Dublin as an example, a key example of low hanging fruit in attracting people who don't cycle to cycle at least some of the time is residents of the inner suburban areas of Dublin (basically between the M50 and the canal cordon). We're talking about 738,000 people in a relatively small area, traveling mostly short distances, and most of them still mainly drive.

Dutch cycling experts point out that you don't just need a good cycle path or two to get people to switch, but you need a high-quality network of safe and convenient routes. Dublin is way behind on building such a network which is segregated and attractive — and there's signs that design failures of the past are being replaced by new design failures. Higher investment, design improvements and political will are all needed.

5. Great public transport won't make enough of a difference on its own

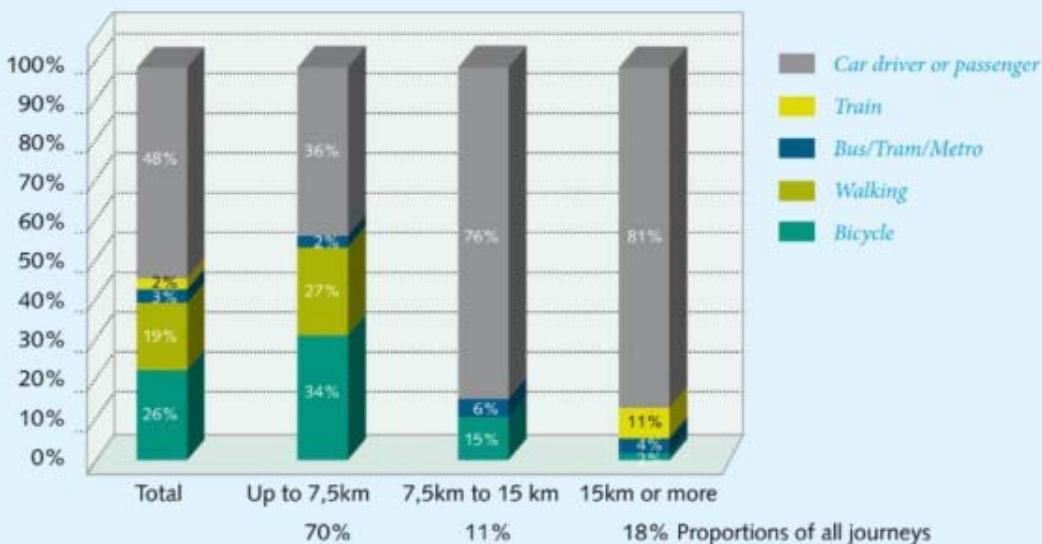


Figure 1: Journeys according to main transportation means and distance category in 2007
(Source: Mobiliteitsonderzoek [Mobility Study] Nederland 2007, AVV)

Above is a chart from a Dutch government report '[Cycling in the Netherlands](#)'. Looking at the total (left column) we see that share of the Netherlands's many train, tram, bus and metro services nationally amounts to just 5% of total trips. Walking amounts to 19%, while cycling amounts to 26%.

When it is argued that we should follow the Dutch, we're often told we're too far behind. While we are far behind, we're even further behind in public transport provisions. However, catching up with the Dutch public transport system alone (in relative terms at least) would not have any meaningful impact on emissions compared to catching up on their cycling infrastructure and culture.

We argue that public transport and cycling supports each other and investment is needed in both, cycling just needs a larger chunk of the overall transport spend.

6. Public transport and cycling complement each other



IMAGE: Guarded indoor bicycle parking at Utrecht Central

When cycle routes and bicycle parking is provided, people will cycle to public transport far further than they will walk to the same train or bus stops and stations. But sometimes large investments are needed in secure parking. Take, for example, the Dutch city of Utrecht, a city smaller than Dublin, but [one which is constructing 22,000 bicycles spaces at its central train station.](#)

In the Netherlands it is common to have bicycles at both ends of journeys — allowing people to travel to/from stations faster. This makes high-frequency rail and bus options more attractive to more people, thus more viable to provide.

7. A leap from car to bike is smaller than one to public transport

Cycling and driving are both mainly door-to-door modes of transport; the idea of freedom and independence is strong with both modes, and, while bicycles can't hold as much as a car, by using Dutch-style bicycles with pannier bags and baskets/crates you can carry a lot more than walking and using public transport.

With bicycles, like cars, you're not tied to timetables or traveling to the nearest public transport stop. While the best value for public transport are monthly or annual tickets which lock you into using public transport daily or the tickets won't be worth it.

8. Cargo bicycles have huge potential



Cargo bicycles are suitable for transporting children and “last-mile” transport of goods and deliveries. These bicycles help people in cities to go or remain car-less or sell their a family’s second car. An EU-funded project estimated that [25% of all goods and 50% of all light goods could be moved by bicycles in urban areas.](#)

Cargo bicycles have increased in popularity for personal and business use in Europe and North America. Five or six Dublin retailers now sell cargo bicycles in Ireland, but their use is still at early stages here. Why subsidise electric cars but not cargo bicycles or electric cargo bicycles?

9. Cycling can be made a lot more attractive

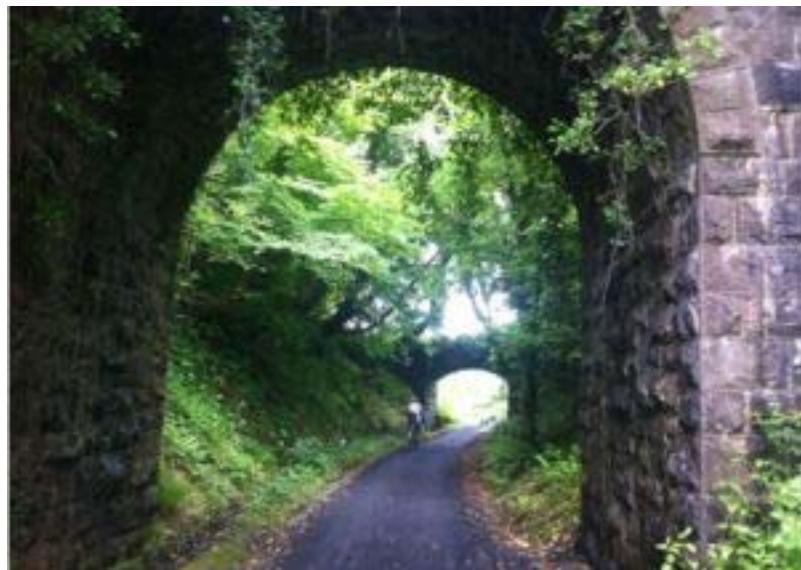


IMAGE: The Great Western Greenway outside Westport: Greenways are great but should be only part of a network

We need to retrofit our roads and streets to cycling — but there's overall little funding made available for this, councils are restricted because of staff shortages and in some cases also because of budget shortages, and our national design guidelines still fall far too short of best practice (ie what the Dutch do).

We have tried long enough to do it our own way (partly copying the UK), it's time to follow the leaders. The Netherlands is only 1,000km away and we have a lot to learn from them from political will to funding to design and construction standards.

10. Electric cars have questionable green credentials



IMAGE: Electric cars, bicycles and buses are where batteries for transport are best used

Technology saving us from climate change and other problems facing us is all too attractive. But [the green credentials of electric cars and electric hybrids are questionable](#), for more than a few reasons. Even if there were no emission issues with mining the batteries and if our unclean power grid was cleaned up, there's still the fact that current electric batteries are a limited resource and, so, there's a need to use these wisely (ie for buses, car shares etc)." But that's not the only reason why electric cars are not an answer to the problems we face.

Subsidising electric cars for non-shared private use negates to account of an immediate issue most of our towns and all of our cities are facing — congestion. Cars are clogging up our cities more and more to breaking point — it takes very little to send the network into gridlock. Electric cars will only make this worse.

As far as emissions are concerned, lowering emissions via fewer car trips by getting car owners to switch to mostly or sometimes using bicycles is achievable in the shorter term on a larger scale than a switch to electric cars.

6 problem areas with cycling in Ireland today and solutions

1. Poor planning, design and implementation

ISSUE: Cycling infrastructure built as cycling projects, road projects and other construction (ie housing, business parks) continues to be designed in a way where it is not attractive to cycling for all ages and abilities and does not amount to a well-connected, safe and attractive network. Left unresolved, it will stop cycling from fulfilling its potential.

Not a single town or city in Ireland has a comprehensive cycle network which is attractive or suitable for all ages and abilities. The so-called networks in Ireland remain disconnected and of a poor or very poor standard.

SOLUTION: Update planning and design guidance to follow the best international practice -- cycling policy and design from the Netherlands. (a) Implement traffic circulation plans (including cycle network plans), starting with all urban areas and area of urban influence and inter-urban links, and (b) intergrade common Dutch cycling elements -- as per the Design Manual for Bicycle Traffic, CROW, 2016 language edition -- into Irish design guidance.

2. Low level of funding

ISSUE: There is not enough funding allocated to cycling to build current planned cycle route, parking or bicycle share projects, and thus there is also not enough funding to expand cycle provision quick enough to have a significant impact on climate change emissions.

SOLUTION: Increase the funding for walking and cycling to at least 20% of the Department of Transport's capital budget for transport projects.

3. Access to bicycles

ISSUE: While access to basic bicycles is not a problem to many people, it is a problem for some people. The affordability of electric bikes and cargo bikes is also an issue -- especially for those who have no access to the Bike to Work scheme and low-paid workers who do not benefit much or at all from the scheme.

SOLUTION: A number of different solutions are required, these could include:

- (a) Follow the example set by a number of governments who are giving incentives for the purchase of electric and/or cargo bicycles. For example, the city of Oslo are giving residents a grant of 25% of the cost of an electric cargo bicycles (up to a maximum of 10,000 Norwegian Krone, which is around €1,000); and the island of Jersey offers a grant of £300 for electric bicycles over £1,500 and a 20% discount below £1,500. Oslo uses its Climate and Energy Fund to give its grant, but there is no reason why such a grant should not also apply to non-electric cargo bicycles which have in their own right the potential to replace many car trips for parents with children and others in need of extra carrying capacity.
- (b) According to the EU-funded CycleLogistics project, cargo bicycles have the potential to be able to transport 25% of all goods and 50% of all light goods in urban areas, so the above mentioned grant for cargo bicycles should also be open to businesses or a separate scheme should be made available to businesses.
- (c) Investigate the possibility of supports for the purchase of bicycles, safety equipment and child seats for low-paid workers, those on social welfare, and people who are retired.

4. Poor integration of cycling and public transport

ISSUE: In the Netherlands 40% of daily users of the rail network travel to bicycle, but in Ireland there is poor integration between the public transport and cycling: there is limited parking at train and bus stations; bicycle theft is a large problem at suburban and city centre stations; and carrying bicycles on intercity public transport can be expensive and suffers from capacity issues.

SOLUTION: Public transport planners and companies need to see the parking and carrying of bicycles as helping gain bus or rail passengers they would not otherwise have. A number of different solutions are required, these should include: A number of different solutions are required, these should include:

- (a) Large-scale investment in high-density, secure and free or very low cost bicycle parking at the main city train stations, bus stations, and other transport hubs. The preference for this is that it is guarded when the train station is open. This could be trialled at Pearse Station in Dublin where there is currently a large and mostly underutilised area at platform-level (mainly used for staff / company car parking).
- (b) Secure and free or very low cost bicycle parking at intercity and suburban train and bus stations.
- (c) A public transport bicycle share system (separate from local bicycle share) rolled out nationally to all city stations, most suburban stations, all regional towns and even villages where there is demand. The system should be similar to OV-fiets in the Netherlands and be mainly aimed at allowing railway users to rent bicycles use them for the duration of their trip away from their home station -- this is opposed to city bicycles which are aimed at a fast turnover of bicycles.

- (d) The price of carrying bicycles on intercity and regional services must be lowered and in off-peak and low demand routes the fee needs to be fully waved. The fee carrying bicycles on intercity trains and buses should be reduced to zero or at the very most a nominal daily cost (ie €5 per day) and not be based on a per trip cost.
- (e) There is a capacity issue with intercity / long distance railcars. This could be improved relatively easily by removing a small number of extra seats (ie one set of two non-table seats) and the replacing the current bicycle rack system with security straps -- this would mean up to four bicycles could fit where currently only two can fit in the racks.

5. Promotion of unproven safety gear vs promoting cycling

ISSUE: There is little to no promotion of cycling as a form of transport, while the promotion of unproven safety gear usually takes central place.

SOLUTION: Alongside the rollout of safe cycling networks, measures must be taken to promote cycling and its benefits. However, as per international examples (Australia, Copenhagen, etc) the promotion of safety gear which is unproven or of limited benefit, can have the opposite effect and decrease cycling's attractiveness to few beyond committed individuals. The message should be about the advantages of cycling, including that cycling faster many areas for many trips, that cycling can give freedom and that it is a relatively cheap form of transport. Environmental and health benefits should be part of the messaging but only a secondary part as there's evidence that few people are motivated mainly for these reasons.

6. Law, policing and enforcement

ISSUE: There are a number of issues in regards to law, policing and enforcement. Some of the main ones include: (a) a number of UK police forces in the UK have started to implement checks on motorists dangerously overtaking cyclists and growing number of counties have a minimum passing distance in place where motorists must give cyclists at least 1.5 metres in speed limits beyond 60km/h and 1 metre in areas with lower speed limits; (b) cycle lanes are often blocked by motorists who are dropping off, parking and loading, and, in some areas, too much leeway is given or a blind eye is given to the policing this issue; and (c) some Garda officers need a culture change in terms of victim blaming (as shown most lately by the focus unproven safety gear by a Garda representative body).

SOLUTION: The proposed minimum passing distance should be supported; there must be an acceptance that discretionary policing has gone too far in allowing illegal parking and loading to continue unchecked, and treatment of cycling issues should be addressed as part of the wider planned culture changes in the Gardai.

Conclusions

The bicycle is Ireland's best or only hope for a low-carbon transport future in the short to medium term. Some of the issues may seem like these go beyond climate change mitigation, but these are the issues in the way of cycling having a positive effect as much as, for example, planning or tariffs issues hinders low-carbon energy generation -- it is for this reason that the Department of Communications, Climate Action and Environment and anybody interested in low-carbon transport cannot leave the detailed issues unresolved.

If there are any questions about this submission please contact me.

Regards,

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