

# The Future Is Rail - Strategy and Vision

*By Michael van Drogenbroek*

*Wellington, 28 June 2023*

*(To be read in conjunction with Presentation Titled “Vision For Inter-regional Passenger Rail In New Zealand – Future Is Rail Conference”)*

Kia ora kou tou - Good Morning everyone and thank you Roger for that kind Introduction, and also to Patrick Rooney and Paul Callister my fellow conference organizers and great to have the Youth Voice from Ruapehu College and Taumarunui High School here – well done!

## >>> Slide 2 - Quote

Those that know me, and there are a few here today, would expect me to put up a detailed presentation on my vision for Passenger Rail. Of course, you won't be disappointed in that sense. You can read the detail on the slides on my website now at [www.heriot-edievale.com](http://www.heriot-edievale.com). So don't worry if I flip through some slides rather quickly.

Look at this quote from Michael Joseph Savage - it's great isn't it – he knew of Rails unfair treatment and the bias against rail over 80 years ago, as do many of us here today.

## >>> Slide 3 - Junction slide

I worked for KiwiRail and its predecessors for over 20 years up to 2011 and for many of those years I was known as the finance guy reporting on Rails performance to management. Later I worked on strategy there.

## >>> Slide 4 - Why National Vision

I broke free from that over 12 years ago to move to the United Arab Emirates to head up Strategy and Planning at the brand-new mixed-use freight and passenger 1200km railway being built there - Etihad Rail – a US\$12 Billion Project part of a wider US\$200 Billion project across the Gulf to eventually connect rail to Europe. It has gone from nothing when I arrived there in 2012 to now being fully constructed and operationalized railway across the UAE. That

experience taught me a few major things that you need to achieve a Vision in Rail!:

- You need to be Brave
- You need to be Bold
- You need to have a purpose, in order to be Ambitious and Visionary
- You need a sense of Urgency
- You need persistence, stick to your ideas, be true to your beliefs, know your stuff and not let naysayers, skeptics and the inevitable setbacks stop you from pushing things through to completion no matter how hard it is some days!
- Most of all you need resilience.

At the heart of this we should ask ourselves – What sort of country do we want New Zealand to be?

I've always been a believer in Rail and it's fair to say it been very difficult to see its struggle in New Zealand being hand to mouth financially perpetually - going to the purse string holders like Oliver Twist with:

“Please sir, I want some more“ - just to survive another day.

Recently, reform has improved that paradigm somewhat.

It's heart breaking for many in the industry, but we are survivors – we have had persistence and we all believe in our industry and what it can do to help shape the next century of development and community for our nation. Further Rail sustenance should transcend partisan politics to be non – partisan and not unnecessarily loaded politically. There are many reasons why.

Its acknowledged it is a difficult time for our nations proud people – we have a cost of living crises, money is tight and there are many other challenges – but as many have said :

“We need to be able to walk and chew gum at the same time”

and just because we have challenges doesn't mean we shouldn't have Visions and Ambitions for our nation – In fact the opposite is true. It is times like this we need nation building and I submit to you that national passenger rail is a great way of doing that!

### >>> Slide 5 - History Slide

We had great passenger rail across New Zealand before, as you can see on this slide, with all the great named trains from the 1970's – we can and should do it again!

### >>> Slide 6 - The 2020's Today slide

What of today? Well, we have our Metro networks in Auckland and Wellington which have had substantial welcomed investment in recent years – which is great, and we have our scenic Great Journey Trains across our Motu. Further we have our commuter regional rail services of Te Huia and the Capital Connection which are run by Kiwi Rail.

### >>> Slide 7 - Environmental Benefits Slide

The environmental benefits of rail have been canvassed many times before so I wont labor them here.

There has been a strong institutional bias in favor of private motoring and aviation since the late 1950's. This dealt a nearly fatal blow to our rail industry around 1990 – we now have one of the highest car dependency rates in the World!

Well, these bias's, and the people that have them are on notice – the time for that has passed and we are here now for the Future of Passenger Rail in New Zealand

### >> Slide 8 - Key Success Outcomes

There are many Key Success Outcomes – Connecting Communities, Customer proposition / Experience, Economic Growth, Safety benefits, Spatial Planning, Land Use intensification – these are just a selection of them and there are many more as you can see.

At this point I would also like to mention the team at Making Rail Work for their sterling efforts in their recent Passenger Rail Myth Busting Campaign on social media. If you haven't seen it yet – check it out on LinkedIn and Facebook.

### >>> Slide 9 - Infrastructure NZ - Sustainability Slide

Rail is a key part of our national infrastructure and should be considered as such – in that respect it is no different from other networks like water,

wastewater, fibre, power, roads. It's not just a nice to have and it's good to see the sustainability framework from Infrastructure NZ acknowledge that reality.

### >>> Slide 10 - Slide Where Passenger rail

So where passenger rail? After I left Abu Dhabi, I moved to Melbourne to head up Public Transport Planning for the state of Victoria at the DoT. Victoria taught me more about integrated public transport networks and planning – where and why it is important.

Factors such as Strategic advantage over other modes, journey time savings (Like tunneling), Demand known and unknown, Spatial Planning integration with Transport Planning, enabling access to affordable housing, linking our Mana whenua and looking after our Tamariki are all important factors here.

Anything we have in our Brownfields rail environment is no more challenging than what Victoria faced in developing its current superb inter-regional passenger rail network in the early 2000's.

### >>> Slide 11 - Deficiencies

We have significant planning deficiencies in Analysis and Research in New Zealand. This is due to a regional centric focus, but inter-regional and national public transport is also a national issue.

Where is the national vision? Who is responsible? Stronger Regional partnerships together with Central Government agency leadership is required. The PT planning process is heavily biased to intra-regional. Works for Auckland and Wellington Rail but not elsewhere.

It is my view we need to establish a National Public Transport function to plan/develop national and regional integrated PT multi modal networks across all NZ ensuring alignment with national development priorities. Business cases can then be funded as national development projects. It is a framework & resource for the regions to achieve their aspirations – Regional & Central Government partnering and integration is critical.

The “Sustainable Public Transport Framework” doesn't fix this issue, so it is a missed reform opportunity.

### >>> Slide 12- Header Slide – The Vision

So after all that what is our Vision? Well, we need our rail mojo back!

### >>> Slide 13 - Upper North Island

Our first equal priority is the Upper North Island – we call this The Golden Triangle.

This would be a high quality, fast frequent rail service linking Auckland, Hamilton & Tauranga with top speed of 160kph utilizing Tri-Mode rolling stock. Why - remember - 50% of NZs population lives north of Te Awamutu

Currently Te Huia runs Hamilton to Auckland with an average end to end transit below 60kph. It is relatively Infrequent and there is no service to Tauranga.

To improve this, we need to unlock Auckland rail congestion through investment in 3rd/4th mains, enhanced signaling, a new central Auckland station, electrifications, Kaimai tunnel works on ECMT, track improvements, new trains and maintenance facilities etc. The Hamilton - Auckland Intercity Project (Faster Rail), has been provided to the MoT and we await the outcome. There is no major threat to rail freight capacity with modest interventions on this corridor. Making Rail Work will talk further on possibilities here later today, Services through to Tauranga by the early 2030's are possible.

### >>> Slide 14 - Lower North Island

Concurrently the Lower North Island will be delivered.

We will have faster, more frequent passenger rail connections between Wellington & Palmerston North and Wellington & Masterton at 130kph using Tri-Mode rolling stock with potential for a later expansion to Whanganui.

The Capital Connection and Wairarapa Connection currently ply this route. The Lower North Island Rail Integrated Mobility (LNIRIM) project was funded in the 2023 budget and the process for new rolling stock procurement has commenced. Further infrastructure upgrades are needed on the NIMT e.g. electrification, track upgrades, targeted duplication and maintenance facilities etc.

The corridor improvements should be mostly delivered before the end of this decade.

### >>> Slide 15 - Electrifications

On electrification first up is Pukekohe – Hamilton, then onwards to Tauranga. Next up is closing the gap between Palmerston North and Waikanae in 25Kv AC to connect to the electrified Wellington 1600v DC network. Electrifying Upper Hutt to Masterton could be considered later.

### >>> Slide 16 - National Connector

Next up is a National Integrated Connector Auckland to Wellington to Picton to Christchurch. This could be daytime & overnight (Sleeper) trains Auckland to Wellington with onward links to Christchurch via the Interislander and Coastal Pacific. Leveraging off our Golden Triangle and Lower North Island upgrades – these trains could run at 110kph outside these sub networks.

The Northern Explorer & Coastal Pacific trains currently ply these routes, but services are seasonal or infrequent.

New trains for the North Island section are as shown below and we would utilize the current Coastal Pacific fleet better with new ferries by 2025/26.

These services could be fully upgraded to greater frequency by around 2030.

### >>> Slide 17 - South Island and Other

Next is a new Central South Island Rangiora - Christchurch - Ashburton - Timaru fast rail service with connecting buses to the south. Fast frequent running across the Canterbury Plains to Timaru could be in place by the early 2030's. This network would complete our three red core networks.

Redefined tourism services with the Tranz Alpine at its heart and a National Tour Train (all pax lines e.g. SIMT) being a commercial operation can occur as rolling stock is released.

Eventual Network expansion onwards to Dunedin, Invercargill, Napier, New Plymouth and later Northland, Rotorua, Gisborne and even Queenstown via Kingston with ferry connection is possible by the 2040's. I recently wrote a blog with Paul Callister on this.

These expansions could help leverage local networks in Christchurch, Dunedin, Waikato, BoP, Hawkes Bay progressively to the 2050's.

Finally let us not forget Heritage Operators sustenance for operators such as Dunedin Railways.

### >>> Slide 18 - Total Network Summary

So, by the 2040's a quality high frequent core network of fast (Red) rail network trains supplemented by electrified NI regional connectors (solid Black) could be in place. We then leverage of these regional networks developed to complete our vision with longer distance trains (Grey) spanning the nation progressively by 2050.

*These maps as shown and noted, have been developed further from previous Green Party proposals. The point is good consensus is building.*

### >>> - Slide 19 - Rolling Stock

New Rolling Stock is emerging all the time – and this what some of the trains could look like - Bi/Tri mode hybrid / fuel cell, full electric trains like DB/Siemens and Wink/Stadler trains.

Others will talk more about what's going on the with new lower North Island proposed rolling stock later today.

### >>> Slide 20 - Time Slipping Into the Future

Time is slipping - we need to act!

### >>> Slide 21 - Key Investments

Many key investments I touched on already eg Infrastructure, electrification, stations and rolling stock. The investment required is large but a steady pace to make it doable is possible.

Inter-regional rail is an opportunity for regional rejuvenation and job creation eg. Masterton is likely to be home of major maintenance facilities for the new Tri-mode trains.

Last Mile investment like micro mobility is also critical eg. Bike secure park and rides as well as national integrated ticketing

We need a New Zealand Rail Academy to build Rail/PT knowledge, professional development, support new jobs, apprenticeships etc. We need desperately to invest in our people. Many current challenges we have today in Rail are in no small part due to a domestic rail skill shortage.

Ironically one of the reasons I was recruited to the UAE was to help Emirati to build up rail skills in that nation – Emiratization. The Rail Technical Society of Australasia is doing great work here, but the industry needs to do much more.

## >>> Slide 22 - Summary slide

So, in summary this is a plan that is:

- Staged Rail over 20+ years - Golden Triangle / Lower North Island first,
- Integrated National Public Transport Planning with strong Regional partnerships at its heart
- Rails key advantages leveraged, customer centric, innovative
- Non-partisan political support critical
- Funding sources could include Land Value Capture, TOD's, user fare box, NZLTF, fuel / general tax, rates, GST allocation, inward investment, increased population base, release car capital
- Openness to delivery models eg Franchising, Concessions, Development Co-ops
- Integrated networks are critical
- Develop a pipeline of industry capability and commitment

Ambition and new thinking are required for a better connected nation!

## >>> Slide 23 - Final Quotes Slide

I want to end on a couple of quotes:

First - Elinor Ostrom who had sage advice for our friendly important bureaucrats and politicians.

But the last word belongs to Johnny Cash "Riding the Rails"

"It was a big job, and it required men that could think a mile high and three thousand miles long"

Thank you!