

**PART 1 – RegenVic: A project to prototype Climate Change solutions in Central Victoria to transform Victoria’s Food System and create a resilient regenerative economy which can then be scaled globally.**

If we are to avert the worst impacts of the Climate Crisis, we need a range of solutions that will regenerate our soils and our communities to create resilience to drought, floods and fires. A key to this is to support farmers financially so they can more readily become stewards of our rural landscapes and sequester carbon.

If we can do this with market forces and the support of technologies to shorten supply chains and encourage people to consume more nutritious and diverse foods, we may just have the basis for a thriving and sustainable economy.

All the better, if at the same time we can totally transform the economy to move away from exponential growth and destruction of the natural world, to create the type of world that we all want, a world where we all enjoy freedom, security, wellbeing, happiness, abundance, hope, diversity and harmony.

The following vision outlines how Central Victoria becomes an integrated pilot program prototyping Climate Change Solutions to reach a Net Zero Economy by 2035 that could then be scaled globally. This vision is centred around transforming the Victorian food system and establishing a planned rural environment that is powered by a regenerative circular economy and is resilient to the forces of extreme weather and other climate change outcomes.

A specific vision for the Food Ecosystem that outlines the transformation and benefits for the various stakeholders is outlined in a separate document as Part 2 – The Central Vic Good Food Ecosystem

The other supporting document is presented as Part 3 -The Climate Crisis Solutions Blueprint. It outlines the roadmap using market forces and the collaboration and ingenuity of a relatively small cohort of changemakers seeking a better world for future generations.

This roadmap is a rough lump of clay that over the coming months will be shaped by experts so that by the end of 2020 there is an agile implementation timetable that sidesteps the political inaction of governments held hostage to vested interests.

## **How Climate Change, Regenerative Agriculture and Collaboration transformed Victoria's Economy and the World's Food Systems to avoid the Mass Extinction.**

January 1 2050

As we embark on a new decade of global optimism, it seems a distant memory how dramatically the world has transformed over the past 30 years.

In 2020, the Omnicrisis was just unfolding and people were oblivious to the better world that awaited the other side of the Ecosystems Revolution.

Bushfires, Droughts, Floods, Typhoons and other extreme climate events were on the rise. After decades of denial, delays and apathy, the seriousness of the Climate Crisis became more apparent. The breakdown of democracy and capitalism spiralled, fuelled by corrupted politics, the inequities of neoliberalism and the fear and division fostered by the fake news misinformation spread by media moguls, and vested interests.

The bushfires of California, Siberia and the Amazon were dwarfed by the ecological carnage of the Australian Bushfires. That was one of the key turning points when the narratives of Climate Denial shifted. But it was the unexpectedly rapid impact of the tipping points of the loss of the Arctic Ice, the underestimated impact of the thawed Permafrost and the loss of the Greenland and West Antarctic Ice shelves that made the prospect of +4C global warming and 10 metre sea level rises seem very *very* real. It was this fear that galvanised change so that mankind rallied and avoided running over the 'business as usual' abyss.

Some called it World War Me (the war on individualism and consumerism); others referred to it as the Omnicrisis as the Climate, Bushfires, Food, Water, Biodiversity, Disease, Economic, Politics and Social Cohesion Crises all reached flash point.

As with the collapses of previous civilizations over the course of human history, there were many who right up to the brink of collapse were in denial of the

seriousness of the situation and because of the power of the paradigms that blinded them, were oblivious to the abundant future that awaited.

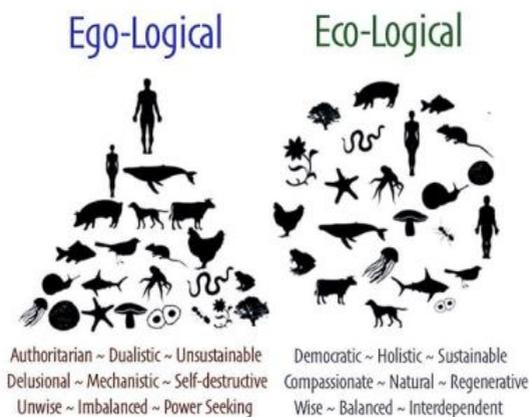
The turning point was the shift of financial capital to regenerative solutions.

The speed of change was dramatic as the threat of a financial meltdown as trillions of investments that had been exposed to Climate risk were divested and redirected into the raft of solutions to reverse global warming. The Task Force on Climate-related Financial Disclosures (TCFD) risk reporting requirements played a significant role in the suddenness of the capital shifts.

The nail in the coffin to the old world order of oligarchs and the social divide was when the People's Assembly Governance system kicked in and coalitions of independent politicians took the balance of power in Governments and changed the whole dynamics of the broken political system that had masqueraded as democracy.

It was the time when humanity evolved from 'The Love of Power' to 'The Power of Love'.

This period of transformation was called the Ecosystems Revolution because it involved the dismantling of hierarchical competitive systems models based on individualism and greed (Ego) and replacing them with collaborative ecosystem network models of distributed power and resilience. (Eco)



It also was a time when the species Homo Sapiens finally earned its 'sapiens' name and wisdom superseded the world of division, and mankind understood that simplicity and connectedness to the natural world was the path to survival and happiness.

The exponential growth mindset was displaced by a desire to thrive through regenerating the natural world that extractive capitalism almost sent into the Sixth Mass Extinction. It seems so obvious now that mimicking nature and her ecosystem dynamics was the key to a thriving economy and society where collaboration, hope and belonging replaced competition, fear and division.

After all we know implicitly that as our bodies reach our maturity height, any additional growth (in the form of obesity) is not sustainable and highly undesirable for our wellbeing.

The Ecosystems Revolution was so profoundly more transformational than any previous revolution or civilization collapse because it also coincided with the technological advances of the Fourth Industrial Revolution where our foundational infrastructure of energy, transport, information and communications systems transformed all aspects of society including our food systems.

The most significant aspect of the transformation that laid the foundation for transforming the economies of the world was the Climate Solutions Prototyping Pilot (CSPP) in Central Victoria or RegenVic as most called it. RegenVic was where hundreds of solutions to the Omnicrisis were implemented on scale to prototype their success and then scale them globally.

These transformations that were prototyped included Agriculture, Supply Chain Management, Logistics, Mobility, Manufacturing, Energy, Water, Waste, Smart Cities, Decentralisation, Regreening, Wellbeing, Work, Culture, Economics and Democracy.

Similar Prototyping projects were launched soon after in New Zealand, Tasmania, British Columbia, Oregon, East Anglia and Isan in Thailand

The shift in agriculture away from Big Ag to Regenerative Ag remediated Victoria's soils providing resilience to land and communities was the bedrock of the transformation and the RegenVic plan.

In ten short years Victoria was totally transformed and ironically although the focus was on degrowth and sustainability, the outcome was a significant increase in population and prosperity.

Some historians referred to this transformation as a transition from an Age of Entitlement to a New Age of Enlightenment. A transition where the paradigm of individualism and neoliberalism was exposed for all its shortcomings.

People came to realise that a 'Fair go for those who have a go' meant a change of rules at both ends of the social spectrum. It meant a change in social welfare mindset that gave a hand up not a hand out. A change where those receiving welfare didn't feel that society owed it to them, but instead took it as a hand up towards finding their purpose and the way to break the vicious cycles that trapped them by contributing to a new world transition.

Similarly, the re-establishment of true deep democracy meant that the power bases of politicians, lobbyists and the extractive capitalists was dismantled.

Central Victoria was selected by the global community as the perfect test bed for Climate Solutions for many reasons including its:

- Southern latitude meant the Climate would make it more inhabitable than the wider world. In fact, some of the alarmists viewed it as an Ark where humanity's diversity of culture could be preserved and rebuilt should the risks of +6C warmed world come to pass
- Diverse and multicultural population meant that the cultures, traditions and insights of indigenous and other ethnicities from around the world could be easily preserved
- High liveability standards making it a highly attractive destination to the migrants needed to fill the jobs and power the transformation
- Strong base infrastructure
- Large tracts of soil that could be readily remediated
- Strong education systems and corresponding research, innovation and technological capability
- Strong skills base of both white and blue collar sectors
- Strong economic foundations

- Strong multilevel government structure (with shortcomings that could readily be overcome once truth-based democracy was re-established and political lobbyism and cronyism eliminated.)
- Social justice and other value systems that could readily be re-established
- Strong International brand (Clean, Green, Trusted)
- Residual manufacturing capability that could be revitalised

It was also identified that Victorian citizens, businesses, NGOs and governments were agile and open to backing the vision to transform the Victorian Economy to be a prototype for the wider global community.

Once the successes and failures from this prototyping program were identified, then the lessons were readily scaled into other parts of Victoria, Australia and the wider world. This scaling up globally was facilitated by having overseas students and entrepreneurs who participated first hand in the pilot and then returned to their communities to implement. This diaspora was the key to Ecosystems Revolution taking hold globally. Not only were there benefits from those who returned but the ongoing connection between Victoria and the diaspora of each and every nationality on the planet.

The other key was the flow of finance from old economy projects like fossil fuels to new economy projects.

Driven by a strong coherent strategic plan, the Central Victorian economy, its projects and companies became the focal point of investors globally. The appetite of superannuation and pension funds to mitigate the risks that the Omnicrisis posed was growing and RegenVic projects and companies proved to be attractive in a financial environment where good deal flow was scarce for fund managers.

By shifting investments to fund transformative business models based on Ecosystems Dynamics, the breadth of opportunities and the scale of the potential global deployment offered opportunity for investors (including mum/dads) to save the planet by securing their wealth and saving the planet. It became a virtuous cycle that all but ensured successful outcomes.

## FINANCE

In the early 2020s there was a massive shift of funds. Initially it was hoped that the transition would be financed by citizen action of people moving their own superannuation/pension funds into 'Net Zero' funds (investment funds focuses on achieving Net Zero Carbon emissions). With 30 trillion in pension funds assets, the theory was that if only 1% moved it would create a war chest of 300 Billion to fund promising 'Net Zero' projects.

In the end, this was dwarfed by other initiatives such as the funding for New Green Deals that started in the EU. The flood of litigation forced banks and fund managers to recognise the downside of leaving money in fossil fuels was far greater than just stranded assets and the class actions against the pension funds, governments and individual CEOs and politicians that left them little option but to move funds for self preservation.

Who would have guessed at the time, that we would have hit a Net Zero Carbon Economy in Victoria, Tasmania and New Zealand by 2032. With some of the Climate Emergency tipping points starting to cascade, who knows what we would be facing now if these corporations seeking both profit and purpose had not flourished.

## ECONOMY

The 'Zebra Economy' as it has come to be known, was only a fledgling sector back in 2020.

Back then Wall Street was still enamoured with Unicorns, those fast-growing, extractive capitalist businesses that would return fast money to investors and create Billionaires.

On the other hand unlike unicorns, zebras are real. They are both black and white: they are sustainably profitable and they improve society.

Zebras are also mutualistic, not predatory. They gather in groups to protect and preserve one another. These types of organizations were also referred to as Social Enterprises. It was these 'Zebra companies' that delivered value to both shareholders and society that were the foundation upon which our

current world was built. Companies that were focused on creating a Net Zero Carbon economy by other reducing emissions or increasing carbon sequestration, came to be known as Zero Zebras.

One of the early shining light case studies in the Zebra Economy was EVZebra the electric vehicles manufacturer. Many Victorians are too young to remember the late 2010s when Victoria had no Automotive manufacturing industry. Most are too old to remember that prior to this, there was a strong ICE (internal combustion engine) manufacturing base. It was those ghost town factories that had been Ford Broadmeadows, Ford Geelong, Holden Fisherman's Bend and Toyota Altona that got converted into Zero Zebra factories. The first was Ford Geelong that became a Wind turbine factory in 2019.

It wasn't just the physical factories that enabled EVZebra to set up. It was the fact that there were millions of manhours of automotive expertise still residing in Victoria. The people who had lost their jobs on the closure of the Automotive Industry and the overseas talent that clambered to be part of this venture resulted in both the financial and human resources to build this remarkable organization. EVZebra and its JV partners Tesla are still claimed by many to be the single-handed saviour of the planet. Of course, compared to regeneration of our natural world and soils, this was only a small piece of the puzzle.

EVZebra was formed as a publicly traded consortium joint venture project with Tesla that was established on the promise of providing modest shareholder returns and a fast transition to a fossil free future.

After the initial designs and agile startup plans were in place, it was set up in the abandoned auto factories as a multi-format electric vehicle ecosystem of megafactories.

Some of the Bikes, Cars, Vans, Buses, Trucks, Trams and Trains resembled the old economy while others created for Logistics and Mass Transit seemed like they were out of Science Fiction.

Of course the big driver for this innovation and the reason the project attracted talent and funding was because of the integration of the Zoox autonomous

software for both the vehicles and the mass transit and logistics supply chains ecosystems.

It was the efficiency of these automated supply chain logistics that sent produce from paddock to plate at dramatically lower costs and with substantially less waste than the old economy. This allowed Regenerative Agriculture to operate in a more conducive trading environment and provided access to wider markets to further enhance economic viability on both small and broad acres.

Zebra Companies thrived over all aspects of the economy and contributed to the huge population growth to meet job demand. Agriculture, Construction, Hospitality and Personal Services (aged care, wellbeing) were the standouts and became the bedrock for the Victorian Economy as we know it today.

Another standout Zebra that was founded in 2021 was VicAgFutures, the rural property development initiative. VicAgFutures was a property development fund where over 30,000km<sup>2</sup> of rural Victoria was purchased for small and broad acre Regenerative Agriculture.

It was then developed with the establishment of ecovillages, ecohubs and smart cities in Rural Victoria as well as the infrastructure to support it. This strong microgrid infrastructure of electricity, water and mobility brought great resilience to these new communities.

Land was subdivided and developed in stages under the 'Value Capture' model and in the latter stages funded the rollout of the high speed rail and fast freight network to the new smart cities, Geelong, Ballarat, Bendigo, Shepparton, Traralgon and Wodonga and on to rural NSW and Sydney.

So what had been land that was very difficult to sell even at very low prices per hectare, could be bought cheaply and then through spending on infrastructure and subdividing, created significant additional value that could be captured from the investment process. A less ambitious version of Value Capture had been considered just around the High Speed Rail connection of Melbourne to Sydney and creating greenfield smart cities. This project called CLARA had difficulty getting off the ground because it relied on building the rail first.

It's rather ironic that the key to the Ecosystems Revolution was to move from an exponential growth extractive economy to a degrowth thriving regenerative economy. The sense of community and belonging, the flourishing of culture and the greening of our urban and rural landscapes gave us a feeling of 'Small is Beautiful' when in fact our wider network saw our population double and economy grow five fold in 30 short years.

Amazing what moving from a paradigm of scarcity, fear, competition, division and greed to one of abundance, hope, collaboration, harmony and community feels like, isn't it?

It's hard to remember how dysfunctional society was, now our paradigms have shifted.

It's hard to remember we had epidemics of mental health issues, suicide, drug and alcohol abuse, crime, domestic violence and homelessness.

The other big shift which was made possible with the rise of Artificial Intelligence and the SHAARE infrastructure software platform (explained later) was Ecotaxation and Ecocredits. Rather than taxation being on a fairly narrow base and predominately about profit, the new taxation system and the introduction of the Company and Country Metric Dashboards, meant it was possible to set up a system that not only heavily taxed extraction of natural resources such as carbon and water, but it also provided credit offsets for regenerative and waste processing activities. This 'real cost of business' accounting compared to the old system underpinned the value in running an ecocapitalism financial system.

## GOVERNANCE

The 2020s saw the start of the restructuring of Politics and Democracy towards a deep democracy of transparency and effective policy formation and implementation.

New Zealand piloted the processes of People's Action Summits and Citizens Assemblies tackling various 'wicked problems' from Climate Change to

Homelessness to develop deeply consultative policies that fed into a multistage Governance process including Experts and Ethics reviews.

In Australia, 2019 was the last time a political party was elected outright. Since then the coalition of Independents holding the balance of power has proven very effective in transforming the Australian political landscape to deconstruct the two party Neoliberal 'party machine' model.

The Budget is now implemented after a 'democratic debate' around the solutions and policies developed through collaboration processes that involve citizens, experts and bureaucrats. More often than not, the Budget is passed with Bipartisan support.

Something totally unimaginable thirty years ago.

## POPULATION

In 2020 the Victorian population was only 6.6 million with 4.9 Million in Melbourne, 1 million in cities and 700,000 in rural towns

At 15 million, it's now 9 million Melbourne, 3 million cities and 3 million rural

Not only has this rollout accommodated the substantial increase almost seamlessly, but the development of a decentralised demographic has improved housing affordability and wellbeing.

Having the Regional Cities of Geelong, Ballarat, Bendigo, Shepparton, Wodonga and Traralgon all linked by multimodal high speed mass transit and a highly efficient logistics network was part of the solution.

Developing networks of new greenfield Smart Cities, Ecohubs and Ecovillages also helped, as did creating a network of over 100,000 small acre regenerative farm subdivisions.

Federal government finally succumbed after numerous People's Assemblies on Immigration to develop a raft of Climate Migration policies for the different multicultural communities that underpinned the population growth. Some lessons from the Snowy Mountains Immigration policies of the 1950s were

applied that most historians credit with Victoria's thriving multicultural society.

## COMMUNITY

One of the main outcomes from the Ecosystems Revolution was the re-establishment of strengthened diverse communities and as George Monbiot called it 'The politics of belonging' where rather than the trend to bonded communities pitted against each other, bridged communities thrived. Its this diversity of culture that had flourished in the late 20<sup>th</sup> Century (prior to its neoliberalist hijacking) that we once again enjoy.

It's the mix of co-working spaces, co-living spaces and community hubs in our urban areas and the expansion of parks, gardens and outdoor sports, recreation and arts precincts that have been a fundamental shift in our cities.

Rural Victoria never lost its community spirit. The deep benefits of this was tested but celebrated as the relentless climate events pummelled Victoria in the transition period. The Rural Resilience program and the transformation of rural planning to minimise Climate impact that demonstrated why Victoria was such a good selection as a prototype pilot.

The spirit of community had long been part of the cultural DNA and was soon taken on by more recent migrants. It was further strengthened by finally developing meaningful programs of inclusion and recognition of Australia's First Nation's People and recognizing the true importance of 'welcome to country'.

This community spirit had been tested in the 2020s as wedge politics and fake news campaigns set to divide Australians, but it proved resilient enough to be a key foundation for a transformed Victorian society where Victorians reconnected with each other and country. During this community evolution and reconnecting with nature and country, the First Nations people were instrumental in shaping connecting to country and her biodiversity.

The diversity of multicultural community proved to be as had been expected integral in the shaping of the new regenerated Victoria where not only soil and

ecology was regenerated but all aspects of society to create an empathetic and connected State.

The variety of food, wine, culture, indigenous and other ethnic traditions became a huge boost for Victoria's tourism industry with visitors all over the globe coming to experience Food and Culture safaris as they explored the tapestry of Central Victoria. This tourist demand not only supported the economy and food demand, but also funded the development of the state-wide autonomous mass transit network.

## REGENVIC

The starting point to RegenVic (as the masterplan became known) to establish a Regenerative Negative Carbon Economy was the Food System.

Victoria had long been identified as the potential food bowl to Asia. Prior to the 2020s it had achieved some export success into various markets such as supplying much of Singapore's fresh fruit, vegetables, seafood and meat.

Another initial success had been the functional food sector including Infant Formula and other dairy based nutritionals had created a feeding frenzy in China and wider Asia.

However, compared to the Netherlands, Victoria was inefficient and a relatively small exporter. Many of the lessons of the Dutch success story (aside from their dependence on fossil fuels and synthetic chemical inputs) such as collaboration and innovation, had them punching well above their weight for such a small country. At the time they were the second largest food exporter behind the USA, a position they relinquished to Australia recently.

## AGRICULTURE

Australia had always been at the leading edge of the Regenerative Agriculture movement – the birthplace of Permaculture, Pasture Cropping, Keyline Design, Natural Sequence Farming and (through Southern Cross University) was the

first in the world to offer a tertiary degree: the Bachelor of Regenerative Agriculture.

In the 2020s Regenerative Ag was almost unknown in the wider population as a method of remediating soils to provide increased long term yields as well as drought and flood resilience. What was even less well known was the potential Regenerative Agriculture had to 'draw down' (sequester) large amounts of carbon dioxide into integrated 'polycultural' (multispecies) systems above and below ground. This is particularly the case with soil via roots, exudates supporting increased microbial and plant root biomass.

The Terraton initiative was started by Indigo Ag in the USA to sequester a trillion tons of carbon dioxide into the soils to reduce atmospheric CO<sub>2</sub> back to safe levels. This initiative was mainly focused on the big monoculture crops. The RegenVic model flipped this around, to achieve substantial sequestration and soil remediation based on scaling biodiverse integrated Regenerative Agriculture practices across entire catchments.

Prior to RegenVic, farming in Victoria was mainly based on large acreages, but this shifted dramatically so that within a ten year period over 100,000 new small-medium regenerative ag farm systems were established.

An intensive rural planning process was undertaken prior to the rollout of RegenVic in broad collaboration and consultation with rural stakeholders including local government. Factors such as landscape topography, hydrology (including water grids), soil ecology and the requirements of conservation and integrated animal and plant assemblies were investigated to provide synergies that fed into a blueprint plan for rural development and subdivision.

The outcome developed upon the existing 'green wedges' planning guidelines to provide soil and water security, support plant diversity, pollination, bushfire prevention and management as well as securing 'conservation corridors' for wildlife and plant biodiversity.

The location of rural dwellings, implementation of reforestation programs and access management to National parks and State forests coupled with hazard reduction burning and fire containment processes addressed the concerns that grew about the potential impact of bushfires.

The dominant models were agroforestry and silvopasture where rows of mixed species such as nut trees and fruit trees were alley planted with drip irrigation systems to establish canopies and remediate soils that provided improved resilience to extreme climate change events.

Planting of trees, shrubs and perennials in widely spaced rows between which were alleys dedicated to rotations of annual cropping and high rotational grazing of pasture livestock, pig and poultry whose careful management facilitated the deepening of top soil and increased water holding capacity of the land. This helped undo the damage created by decades of industrial 'Big Agriculture' and its accompanying management dependent upon land clearing, industrial fertilizers and toxic pesticide, fungicide and herbicide use.

In 2035 Victoria became pesticide and herbicide free and fertilizers were abandoned in favour of more natural composting materials prepared from organic matter sourced on farm and from the nearby food waste processing facilities that had become such a big part of the local circular economies.

The booming new sector of Seaweed processing also now provides nutrients for the agriculture sector that contributed to the abandonment of synthetic chemical fertilizers.

Initially there was scepticism amongst farmers about RegenVic, despite the many Australian context case studies. However, once the volunteer citizen armies planted thousands of demonstration paddocks on thousands of farms, it didn't take long for investors and farmers to recognize that the RegenVic plan was an almost guaranteed success.

Other forms of agriculture that have thrived include hydroponics/vertical farming (using bionutrients), agrivoltaics, marine permaculture, aquaculture, biofermentation and bioprocessing to supplement the more 'natural' farming practices.

The big win for consumers came when SHAARE software (refer later - Infrastructure) was fully deployed and not only could they see with full transparency their journey of food to plate, but they could see other information like carbon and water footprint. The result being that there was a marketplace with a wide range of prices for the same goods. For example,

hydroponic tomatoes sell for a fraction of the price of soil grown produce; consumers being willing to pay a premium for more nutritious and tastier foods. This transparency of the supply chain and the removal of subsidised fossil fuel effects finally created a level playing field for more natural agricultural practices.

The big winners in the move to a healthier diet was the shift towards a plant based diet rich in diverse micronutrients. The Seaweed industry in Westernport Bay and Coastal Victoria and the wide range of fruit, vegetables, nuts, mushrooms, herbs and medicinals including heirloom varieties blossomed. This biodiversity on small acre allotments meant that the once threatened Honey Bee population was able to be secured through a rich variety of year round habitat to pollinate the vast increases in crop output.

In the mid 2020s the increased use of pesticides and herbicides and the demands of Big Ag cash crop pollination and then the Varroa incursion saw a panic about national food security. Without RegenVic it may have well been quite disastrous, but coupled with the Bee Centre of Excellence established near Shepparton that established a strong breeding and education program, this disaster was averted. (Refer Rotarians for Bees submission to the Food System Vision Prize for more information)

It had at one stage been thought that Victoria's dairy and meat industries were under threat as we transformed to a plant based diet. However, with the boom in food export to the wealthy Asian market and the restructuring of ruminant agriculture to negative emissions cemented their future as a more appropriate part of diet compared to disproportionately large part they had become during the fossil fuel era.

Agtech certainly has played a big role in helping farmers and all stakeholders in the food system best manage resources to optimise efficiencies. IoT devices to help provide data dashboards for soil health, moisture/water management and supply chain conditions enabled yield gains.

But the resounding message out of the prototyping of RegenVic was that it wasn't technology that drove the change. It was Mother Nature, her ecosystems and simplicity.

One of the outcomes from implementation of RegenVic was that Australia's Food Exports grew in the face of significant drops in global food output due to the Omnicrisis and in particular Climate Change. This growth to wealthy markets was largely due to the implementation of value adding processes. HPP (High Pressure Pasteurisation) Ready Meals and Food Service Ingredients being in high demand in particular in Asia.

While prototyping Regenerative Agriculture solutions for wider deployment throughout Australia and the rest of the world was an important component of the RegenVic plan, it was just that...a component and without the transformation of other key aspects of the economy may not have attracted the level of investor interest, if the RegenVic plan did not address transforming other sectors of the Food System and the Wider economy.

## LAND PLANNING

A key aspect of the RegenVic plan was the rural planning processes that eventually all affected local councils came on board to support rezonings and land development.

During the feasibility stage of RegenVic the ambitious program of rezoning Central Victoria was launched. Satellite data, Drones, Soil testing and First Nation landcare practitioners were used to create a master plan for Central Victoria.

The learnings from the green wedge policies that had been used to protect Melbourne's food bowl were incorporated to create a master map. This map showed ideally where land subdivisions into small and midacre farms, ecovillages, ecohubs (industrial zones), smart cities, infrastructure (road, rail, water, electricity grids), institutions (Education, Health, Community), wildlife corridors, pollinator paths, state forests and national parks, bushfire containment barriers and recreational spaces.

The land purchase process began with the VicAgFutures fund and then the staged development releases and infrastructure build began. With each release new learnings were incorporated. As the world looked on, the investor

demand to get in snowballed and the rate of progress was limited by supply of skills rather than demand.

## INFRASTRUCTURE

In uniting the world behind the RegenVic prototyping plan, the most compelling innovation was Project2020.

It was called Project2020.Earth not only because it gained support in the Year 2020, but it was also developed as a vision that humanity could get behind to save Planet Earth and see with 20/20 clarity.

Project2020 was the largest Software development project the planet had seen. Just as mankind had managed to land a man on the moon, only 7 years after President Kennedy announced the initiative to gather scientific expertise to deliver on the ambitious plan, Project 2020 delivered its first stage outcomes for deployment as part of RegenVic within 4 years.

Upon launch it was given the name we now know it by SHAARE – the StakeHolder Advance Activity Resource Ecosystem..... a human centric platform based on Circular and Shared Economy best practice.

Typically, Infrastructure had been thought of throughout the development of the Industrialised world in terms of physical infrastructure that supported society and its economic base:

Energy, Communications, Transport, Roads, Water, Waste treatment and more recently Internet (the physical hardware).

These physical systems are costly to install and maintain, yet crucial for government to manage either directly or through privatisation so that society can be built on top of them.

It was technology revolutions in these key infrastructure areas that lead to the various stages of the Industrial Revolution.

But in the Fourth Stage the Infrastructure is not just these costly physical platforms that we build society upon... much of our Infrastructure is now software.

Some of this software has been built 'on the commons' for free use of everyone. The first layer of infrastructure is the base Internet protocols which are all open source, interoperable and freely available 'on the commons'

On top of that layer we have built societies main software and software driven platforms. Some of that has been Open Source software, some of those platforms such as the Wikipedia are available for free, on the commons.

However during the first phase of the internet from the 1990s to the mid 2020s, most of the rest of the core infrastructure for society was software platforms developed by 'unicorn' capitalists. Venture capital companies funded companies like Amazon (fixed price shopping), eBay (auctions), Google (search), Facebook (social), Uber (logistics) and Airbnb (accommodation). Rather than these infrastructure services being available on the commons to share like Wikipedia, the Neoliberal model set them up to extract as much value for shareholders as possible at the expense of the greater good. Even the 'free' platforms did so through data mining and control of citizen buying and other behaviours. With the growing wealth came the power to acquire all competitors creating more wealth and more power that eventually corrupted societal outcomes.

The crunch came when the Data Dignity and Fake News Scandals broke. The manipulation of the masses by the Oligarchs and power brokers to try control elections and politics as well as price fixing through the establishment of clandestine price fixing cartels hit breaking point in the mid 2020s. One of the most worrying concerns was that Uber would control our transport, logistics and supply chain sectors and price gouge, just because they had won the initial battle between the car sharing software startups.

The other problem with Software Infrastructure was that it was often expensive and not interoperable. Fragmentation meant a lot of waste of financial and human resources.

Project2020 was set up as a 'society owned' corporation to build a fully interoperable opensource software platform on top of the Internet on the "Creative Commons' and make it available for microtransactional costs much like Visa.

It restored the base platform of the Internet to the people to sit alongside Wikipedia as a societal owned distributed, non-corruptible peer to peer platform. It had its inception in projects called Holochain and nChain, that superseded Blockchain. It's ingenuity came from the way it allowed both privacy and transparency to develop trust.

The scope and capability of Project 2020 is outlined in more detail in the Appendix as well as how the financing and development of such an ambitious project was achieved.

In overview it was a platform that managed the economy. It was developed as a decentralised collaboration of holochain, isgood.ai and other artificial intelligence technologies. It gave full data ownership to the owners including the choice to hide or make information available.

It comprised and supported the Internet of Things, the Internet of Energy, the Internet of Mobility and the Internet of Supply Logistics.

It managed all resource planning, transactions, marketing and the movement of all goods and people.

It makes it easier for producers to thrive through efficiencies and full visibility of the metrics for their business, products and services. The development of dashboards that measured not only profit but all other Key Performance Indicators enabled better business decisions and was the basis for our thriving economic model that's no longer based on growth but on evolution.

As the big data flowed realtime from the activities on the platform it also provided excellent benchmarking capabilities and using artificial intelligence assisted with much more effective policy development. At a macroeconomic level the big win was that elected Government and their politicians not only had the data to enact good policy, but the transparency forced good governance. It no longer became possible to exist as a politician without integrity.

SHAARE gives consumers full supply chain visibility so they can make informed purchasing decisions with access to environmental footprints (carbon and water)

It's an Asset management platform that enables investors to own an asset and book it into SHAARE so that others can use it and earn. These assets could range from a bioplastic container to a Refrigerated van to AI enhanced Robotic Surgery Machines or even a drill (electric of course )

With embedded devices to monitor atmospheric conditions such as temperature and humidity, maintenance condition and location coupled with autonomous vehicle it means that any non consumable asset can be returned to base automatically through the hubs and spoke logistics transfer hubs.

Similarly, consumables such as food can be transferred from producer to value adder to end customer seamlessly. The impact on Food waste through cold supply chain and dramatically improved production planning has been one of the most significant in taking the planet towards a Circular Economy with zero waste.

SHAARE also manages our many Smart devices, Smartgrids. Energy, Transport, Logistics, Water, Waste, Cities, Ecovillages and provides deep data that assists regeneration of the natural world – air, land, sea, freshwater and other species.

There were many casualties with the transition. Mainly the investors who elected not to transition their funds away from the non-sustainable business models of extractive capitalism. Google, Facebook, Amazon, Uber and Airbnb being the most famous case study with stubborn shareholders rejecting buyout offers. Fortunately most other affected companies relished the opportunity to join the Ecosystem of collaboration and innovation that transformed our world, bringing with them and assimilating the intellectual property and employees to fast track the delivery of SHAARE through Project2020.

A key to the success of this massive endeavour was that while the architecture and rollout plan was transparently announced upfront, it was delivered using agile project management so that people could adopt and adjust to the various modules as they were launched. The first phase of the Food Ecosystem Supply Chain made it easier for people to try the software out and it didn't take long for it to become evident how good it was for the economy and for creating increased meaningful employment.

## ENERGY

Despite the strong and rapid growth, Victoria was able to adapt and transition to 300% renewables to early generation solar, water and wind renewables supported by storage. Doomsayers had always run the line – we can't rely on sun and wind, but Pumped Hydro Storage, the Smart Charge Microgrid charge systems and distributed network of vehicle, house and building batteries coupled provided stability. As sun and solar varied the smartcharging and production of Hydrogen production and Desalinated water provide the grid stability we now rely on.

## TRANSPORT/LOGISTICS

Initially RegenVic was developed with transitional logistics systems that utilised manned ICE vehicles and the beta version software. After SHAARE, the autonomous Electric Vehicles and AI powered Autonomous sorting hubs were implemented, the supply chain costs plummeted benefiting both consumers, farmers and food processors.

Some of these cost savings was attributed to reducing Food waste which had previously been a significant source of methane (the potent greenhouse gas). This waste reduction was due to reduced storage time during the food journey, better temperature control and traceability, improved forecasting to match supply and demand as well as more effective processing of excess produce into value added products such as Food Charity meals.

## BUILT ENVIRONMENT

Regreening of Melbourne and a shift to prefab modular construction and 3D printing with ecomaterials are the highlights of what has been a boom industry over the past few decades. The demand due to Climate Migration and ecotourism 'cemented' (low carbon of course) Construction as a lead sector in the jobs market over the past few decades.

The RegenVic master plan for Central Victoria identified the potential for a network of greenfield Smart Cities, Industrial hubs, Towns, Villages and Offgrid agrihomes. By 2040 this was fully built out and the plans for the development of Western and Eastern Victoria are underway.

Back in the 2020s, co-working spaces were in place but the expansion of this model and introduction of co-living spaces and community hubs was in its infancy. The urban and rural planning phase had foreseen the importance of fostering community and building resilience to ensure the survival of communities in the face of rising extreme climate events.

In developing RegenVic as a prototype for the global community the various Community Hubs and Universities became venues for collaboration, innovation, systems design and deep learning.

These hubs also enabled hospitality, the arts, sports and culture to flourish and as ethnicities aggregated, not only were cultural traditions from around the world able to flourish far from their original location, but Victoria became a microcosm where people could travel to different parts of the state and enjoy deep cultural and food experiences.

The Industrial Hubs and Towns were also developed with resilience in mind as the Victorian economy moved to a truly networked grid economy of linked circular micro-communities each supported by microgrid infrastructure of electricity, transport, communications, data, water and waste management.

Regreening of these urban environments improved liveability by improving natural cooling and absorbing pollutants.

## NATURAL ENVIRONMENT

The focus on regenerating and hydrating Victoria's landscapes, reinvigorating her marine environments with the seaweed and other aquaculture industries and developing a managed water grid demonstrated how quickly nature can regenerate if given a chance.

The forecast Carbon sequestration budgets came in on budget by 2035 and the expansion to Western and Eastern Victoria doubled this by 2050.

The Seaweed Marine Permaculture budget in conjunction with the Tasmanian Government was the big winner with doubling budget and offsetting the loss of the Tasmanian kelp forests in the 2010s.

Of course the thing we all love most about the outcome from RegenVic is the fact that we now live in a place where we all, regardless of our heritage, feel intensely connected to nature. The ecotourism sector booms with so many of us choosing to spend our time exploring Victoria and the diversity of nature and wildlife that abounds. The SHAARE ecocabin retreats have high occupancy rates as we graze the state for new nature, food and cultural experiences.

The stronger sense of community and connection to nature has dramatically impacted Societal health with instances of suicide, mental illness, substance abuse and violence all plummeting over the past 30 years.

The fact that people chose to strengthen their cultural heritages meant that different regions had different ethnic mixes theme sections of the state around different food processing experiences and festivals whether it be Italian Passata or German Smallgoods or Chilean Curanto Festivals enjoyed in rural settings as it had been centuries before the 20<sup>th</sup> Century hypercapitalism lifestyle took hold.

## REGENVIC FOOD SYSTEM IMPACT

The RegenVic program came out of a series of People's Assembly Working Groups and Action Summits with representatives of the various Stakeholder groups in the existing Food ecosystem.

Against the background of a collapse of Victorian agriculture and the domino flow on to the whole food, hospitality and tourism industries due to the effects of Climate Change, it was clear that to avoid a depression and mass unemployment, drastic action was required. When the opportunity presented for Central Victoria to shine on the world stage as the prototype and recipient of almost unlimited international financial capital, it was even more clear that a collaborative effort was required to totally reimagine and rebuild a transformed Net Zero Food System.

The Action Summits were run to explore systems that would benefit all stakeholders so that they could then within their sector play their role for a fast transition. Similar Action Summits were run for other sectors including Construction, Energy, Transport, Health, Financial services and Recreation. The Food System was however the poster child for the onlooking global community.

The stakeholders included:

- Farmers and Farm workers
- Agriculture consultants
- Industrial Food and Beverage Processors
- Artisan Food and Beverage Processors
- Food workers
- Food consultants
- Health & wellbeing practitioners
- Food service distributors
- Hospitality Companies (Restaurants, Cafes, Caterers)
- Hospitality Workers
- Supermarkets
- Small/Mid Food Retailers
- Consumers
- Food waste processors
- Food & Ag Research, Science and Technology
- Food and Ag NGOs
- Food and Ag Policy Makers
- Investors

PART 2 : **The Good Food Ecosystems** outlines the typical problems faced for each stakeholder group in the 2020s and how the transformation benefitted them.

PART 3: **The Climate Crisis Blueprint** – the step-by-step roadmap that was developed in 2020 and played a significant role in the implementation of REGENVIC and the subsequent global rollout that contributed to humanity pulling up short of the Climate Abyss.

