

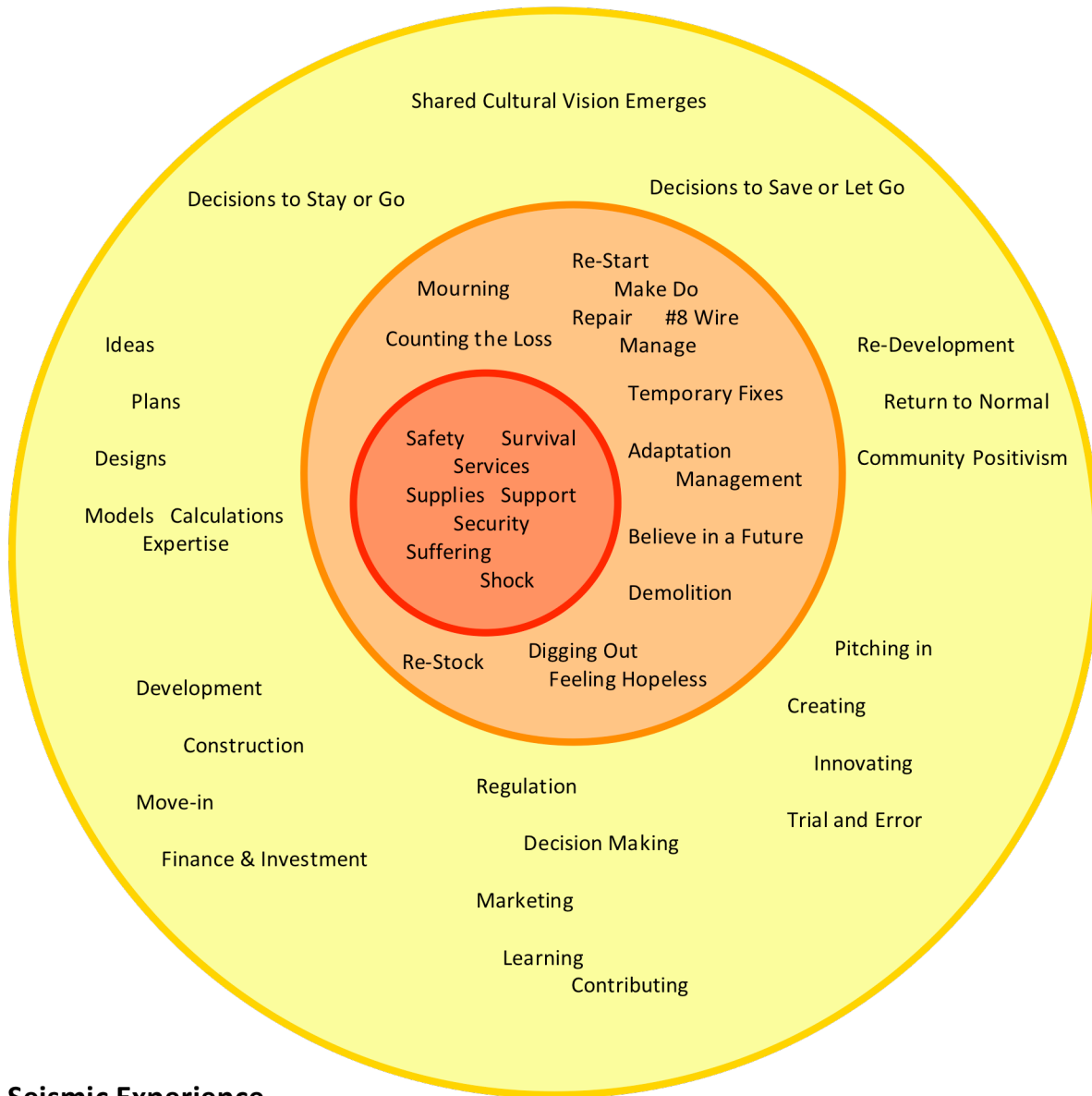
Christchurch Rescue, Recovery and Re-Development

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How do we endure the disaster?

How do we emerge from the emergency?

How do we ensure that we get the quality re-build that we want?



Seismic Experience

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| <ul style="list-style-type: none"> 0 – 2 weeks 0 – 52 weeks 16 – 200 weeks | <ul style="list-style-type: none"> Severe Shock Focused Struggle Sustained Effort |
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The Process of Becoming a Sustainable City

The Seismic Experience has three phases. It is important at this stage to not confuse developing hope for the future with developing plans for the future. It is important for the right people to be in the right place at the right time, doing the right work so that the whole process has the most positive outcome possible.

Response and Rescue

The immediate response to the natural disaster is to rescue people in danger, get supplies and basic necessities to people, and get emergency responders into action. This initial phase is very stressful. It pushes people to the limits of their energy and coping capability at the very time that the ground is still shaking and they are learning about the devastation around them. Long term decisions, and in particular investment decisions, should not be made in this time. People want reassurance that everything will be put right to help them carry on. It is not a good idea to be putting out specific ideas and options about the future until much further along in the process. However, assurance that there will be a process to deal with the recovery will be well received.



Recovery

It can take months to recover to a semblance of normalcy. People are generally still stressed and tired, but they can find strength in helping others, and in hearing about good things that happen amidst the chaos. All organizations, groups and households need to develop new processes and re-start under the distressing conditions. Businesses need to keep people working and return to providing services and goods as soon as possible. Help from people outside the disaster zone is critical at this point as local resources and energy can be exhausted quickly. However, a process must be established early whereby the city can accept help, but the people will not feel they have lost their self-determination and democratic processes. The purpose of CERA must clearly be to provide aide to the city, not to dictate to the people of Christchurch.

There will be media attention and public contemplation of how to re-build, but it is the time for gathering strength in common vision and resolve, it is not the time for specific plans. Numerous websites have sprung up around the ideas for how to rebuild. 40,000 people have left an idea for the council. A strong shared vision of re-building Christchurch as a *sustainable city* has emerged. But the details of what the sustainable city design would entail, how the new construction would be achieved, how it would be paid for are beyond the capabilities of people in the recovery mode. It is important for families and businesses to get a solid sense that we will recover and rebuild. But it is not a good time to make definite plans as things are still too uncertain. It is the time to get businesses and livelihoods re-started.



Re-Development

Here we need to reiterate that the firm re-development planning needs to be done AFTER the Response, Rescue and Recovery stages. Quality development planning for complex systems like the centre of a 350,000 population city will require a lot of data, modelling, iteration, visualisation etc. It is imperative that the city council and other leaders make it very clear that the detailed re-development plan will take time, and that it will receive professional work of high calibre. The shared vision that emerges from the hope for the future we need to get through the recovery will clearly be used as the mission for the re-development, and this must be made absolutely clear. The national government should help with the financing and organization of the re-development project in the same way that the national government participates in other major infrastructure projects, but the local citizens must not feel they are being shut out of the re-development of their city by Wellington.

After the September 4 earthquake, we were thinking about re-building. After two further major destructive events, we have to accept that we are looking at *re-development*. Re-development means taking an accounting of the buildings and infrastructure that can be repaired and maintained, but then looking at the rest of the destruction zone as a wilderness for colonisation. Re-development means the opportunity to really “start over”, to right the mistakes of the past and to leave a legacy for the future. Re-development means new and creative designs, consenting processes, financing and cityscapes can emerge. I will explain how I think this can happen in later sections, but first – let’s be very clear about the mission and let this guide all the work from here forward.

1. Establish a Mission that fits with the community vision

Rebuild Christchurch as a Sustainable City

The first part of the preparation to re-develop is to establish the mission objectives. The overwhelming vision expressed by the citizens of Christchurch and others around the country is to focus the re-development effort on creating a sustainable garden city. People often then jump to the conclusion that sustainable means solar PV or some other particular thing. In fact sustainability is achieved when the *unsustainable* processes and systems have been eliminated. The things that are unsustainable pose risks and represent real costs. The methods and detailed solutions to manage risks of unsustainable practices will be developed in the city plan at a later stage. This first step in the process involves an inspirational leader declaring and expressing the “Mission” for the re-development that will inspire and guide all the future work. Superficial sustainability will not be an acceptable outcome for city.



Achieving sustainability depends on eliminating un-sustainability

2. Set the key objectives for the Sustainable City re-development

e.g.

Christchurch City will have a CBD

the University of Canterbury will not move from Ilam

The first key objectives to emerge set the ground rules for further planning. This is a good first step. Other key objectives, and I would suggest that these are kept to an absolute minimum, should be similar in focus, directness and clarity without being specific on detail. The focus should not be entirely on the CBD. The integration of the whole city infrastructure, environment and communities is a must for sustainability.

At this stage, particular designs or solutions are not to be confused with objectives. The public consultation may inform some of the objectives. For example, adaptation to reducing fossil fuel use is an objective that has been expressed by many people. The pre-quake city plan had objectives which would still be relevant, but the re-development needs specific objectives that align with the mission.

A time-line and the framework for *HOW* the city re-build will be carried out is also an important objective that needs to be carefully set out. The job of developing the time-line and framework must be kept out of the hands of politicians and placed with development professionals. The imperative for the relationship between the community, businesses and the re-development enterprise is trust.

3. Dissolve CERA and form a new Sustainable Christchurch Re-Development Community Owned Enterprise

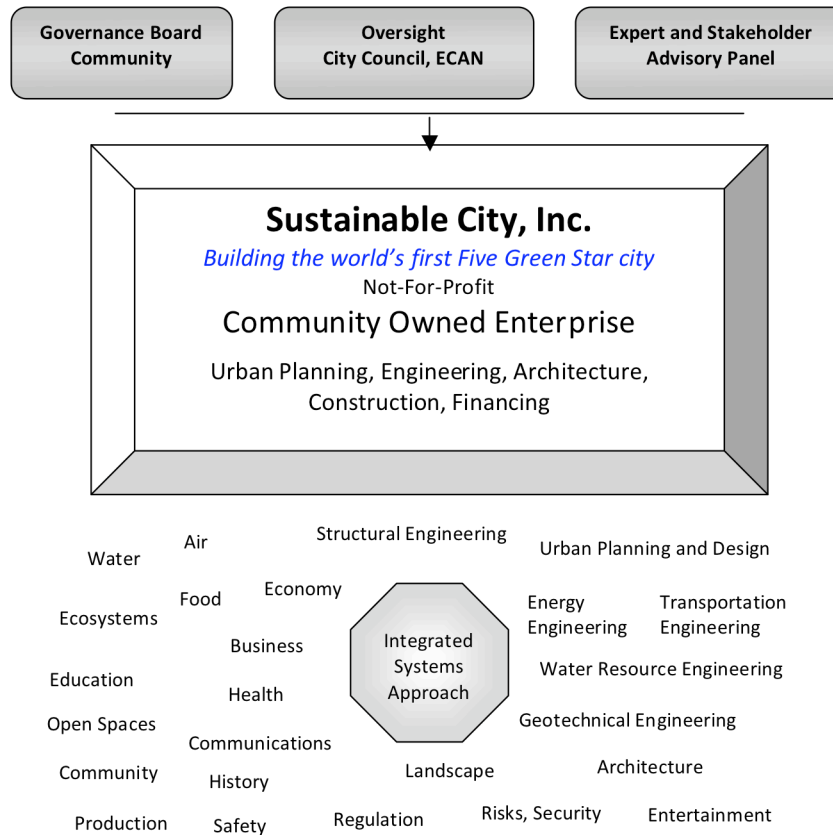
The CBD and major new infrastructure in the city will be developed through a new non-profit community owned enterprise

I am presenting a way to achieve the mission of a sustainable city and meet the re-development objectives. I want the hope and energy of all the people and businesses in the city to be focused on the re-development. In order for this to happen, there must be trust that the mission will be accomplished and the objectives achieved.

I don't believe that the city council is the organization to take on the re-development. The CCC has a specific role in the community and a specific responsibility to the rate-payers. That role is to regulate and solve arising issues with existing infrastructure and communities.

I propose that a new community owned development corporation be established to handle the project using top professional talent and state of the art tools. The new Sustainable City Re-development Community Owned Enterprise (COE) would hire the talent and expertise and capabilities to carry out the asset assessments, re-design, modelling and visualisation, urban and building architecture, consenting, construction and re-occupation. Ideally, a majority of this talent could be sourced from local consultancies and property developers and the local institutions. Once the city re-development is completed and the businesses all moved back in, then the COE would be dissolved and the council would carry on with its normal functions as it does throughout the redevelopment period. A fully coordinated and systems integrated approach to re-development of the city is critical to the future. We have only to look at this kind of coordinated development like Vancouver's Waterfront development to see the benefit of a unified design approach.¹ The city can be much better than it was before, and this will attract new residents, attract the businesses and the visitors back.

¹ <http://www.cityofvancouver.us/waterfront.asp>



To ensure an integrated and high quality re-development, the Sustainable City COE will use an integrated systems approach

4. Establish the Re-Development Financial Instruments and Regulatory Framework

Businesses and Property Owners who lost land and buildings become share-holders

This is a new idea, but solves some sticky problems. Any objective observer would recall that the Christchurch CBD had many problems. Successive councils dealt with different issues as they arose over the years. But the organic development of the CBD area was not on a sustainable trajectory. I propose that the plan for the CBD and the city take advantage of the opportunity for clearing away the metaphorical rubble the inherited inefficiencies and the historical mistakes. The way I propose to do this is to develop an entirely new financial process and regulatory framework.

Individual and often unrelated parties held leases or owned premises in CBD locations. Thus, the city was a patchwork of businesses, civic services, and public spaces. If the objective of re-building were to re-create the previous city by rebuilding each premises on its former spot, at its former size, according to the pre-earthquake zoning and regulations, then we would lose this opportunity. We need a way to operate that lets us treat the ruined CBD as a new “blank slate” development opportunity. I propose this could be done through the Garden City COE and a creative solution to the problem of how to preserve wealth and economic potential when wholesale destruction of property has occurred.

The wealth or assets that people had built up is physically gone. The wealth that remains is in the potential that the people have in their knowledge of their business or trade, and in the promise of EQC and insurance funds. I propose that each resident, vendor or business be issued with shares in the new city in return for their assignment of deed for any land, structure, and insurance claim for property loss and damage. The

Sustainable Christchurch COE would be the holder of the shares. Sustainable Christchurch could raise further funds by selling re-development bonds, green building and green energy credits, carbon credits, redevelopment tax credits and future rates and GST revenue. These types of financial instruments are currently being successfully used in green developments and re-developments.²

- The new city will have value as a place to live, run a business, go to school, visit, produce goods and services...
- This value will depend on QUALITY of infrastructure, urban design, transportation in and to the city, air and water quality, environment, access to services and amenities, businesses, schools...
- The value will be realized through design, investment and development
- The loss of land, property and businesses premises can be traded for value in the new city by agreement of all the citizens.

The idea here is to change the focus from the individual who lost a particular property and contents to the city as a whole. If we look at one particular café in a suburb that was destroyed, we can say that the owner lost everything and will have to move. But from the perspective of the city as a whole, the café owner still has the same value to the city as a person who can own and run a café, something that is valuable to the city. The new city will have places for cafes. This unlucky café owner is “transferred” from their ruined premises to a new premises in the re-developed city by transfer of shares equal to the value of a café of a certain size run by a person with the necessary competencies.

It appears that the central government is going to make the decision about what areas of the city will be “abandoned”. It is not in the best interest of the city as a whole to have inhabited areas that are silted up and suffer heavy damage in an earthquake. However, the people living there are still valuable residents of the city. The Sustainable Garden City re-development project will be to reclaim the abandoned land and develop new high density eco-village projects which are tied to the CBD by renewable energy public and active transport. The people who lost residential properties will be given a priority and transfer of value into the new housing developments, but they will be free to move to any other available property as well.

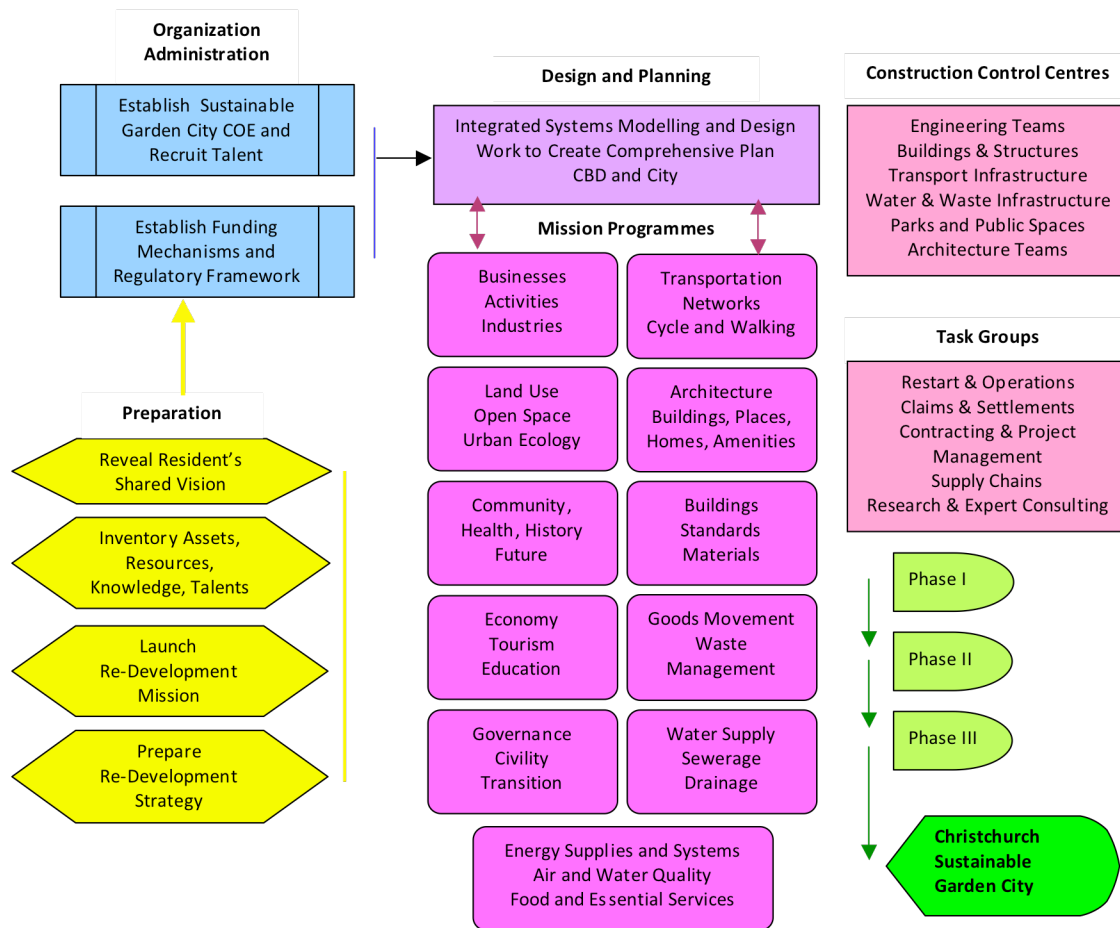
Rate Payers can also become share-holders

Investment capital will be required for the re-development project. Financing the project will require thinking beyond the historical New Zealand local government model. Radically higher rates will discourage homeowners. One revenue stream could come from offering development municipal bonds as investment vehicles for households with investment capital rather than just raising rates on all homeowners. The bonds would provide a return from future rates or special levies as business picks up again in the city.

Re-Development priorities established to optimise the recovery

The first priority for re-developing the city is to establish it as an ideal place to live and work and attend school. The secondary considerations are things like tourism. Tourism is fine, but it is not a long-term industry with anywhere the same value to the city as the University of Canterbury, Tate Electronics, Becca and other businesses. If you look at the current inventory of the world’s “best places to live”, the list is not the same as the list of top tourist destinations. Christchurch is a tourist hub for people who want to visit the South Island. However our sustainability depends on our air quality, water quality, availability of jobs, access to activities, health care, etc. A well-educated, skilled workforce, living in an attractive and sustainable city is a much higher value proposition than building a South Pacific Disneyland.

² Baird.Brown@dbr.com Drinker Biddle Law Firm



The Sustainable City Mission is accomplished through a process with creativity, expertise, and organisational structure over a phased re-development.

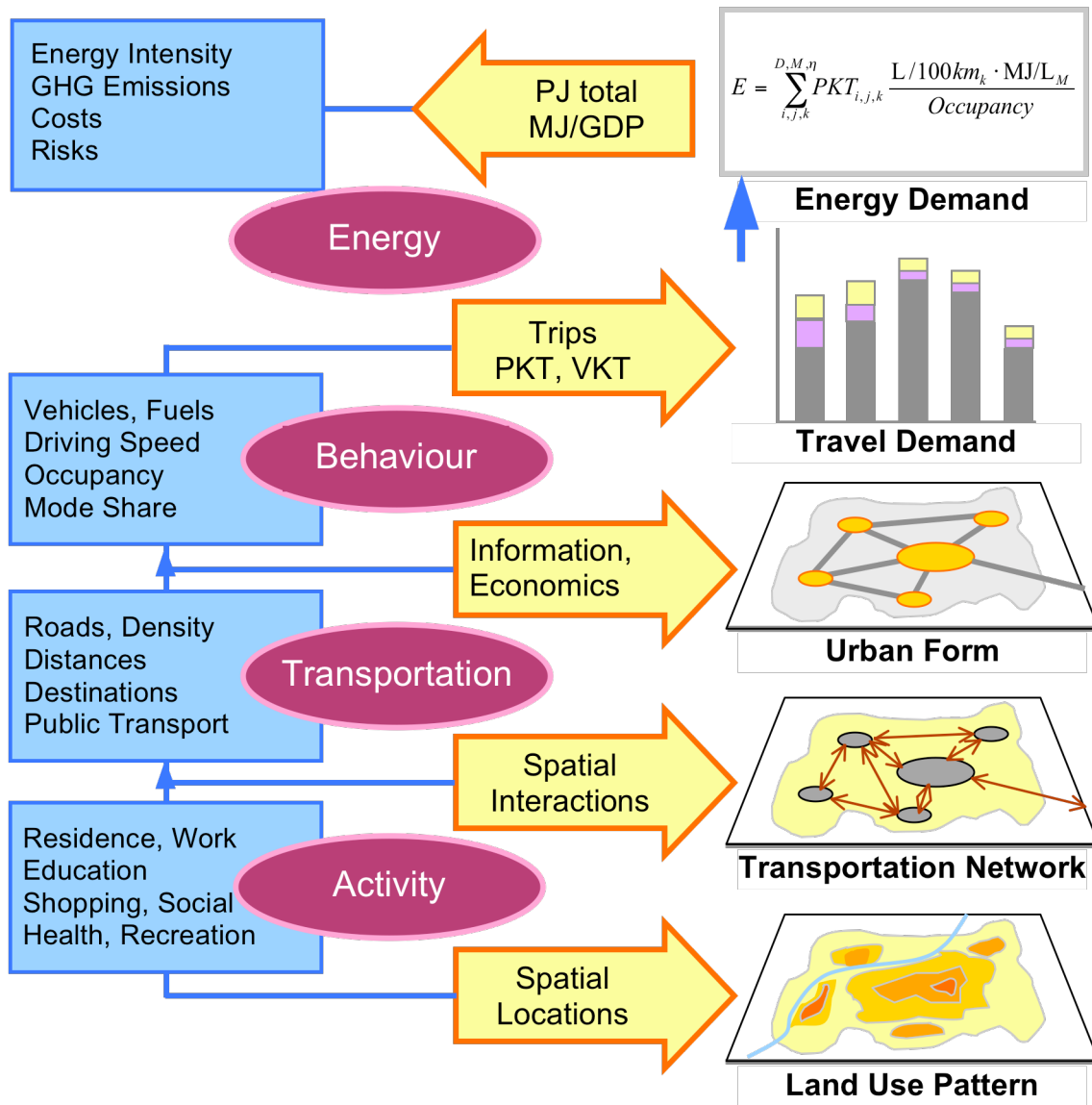
5. Transportation: a critical element in design of a sustainable garden city

The touchstone of sustainability is transportation

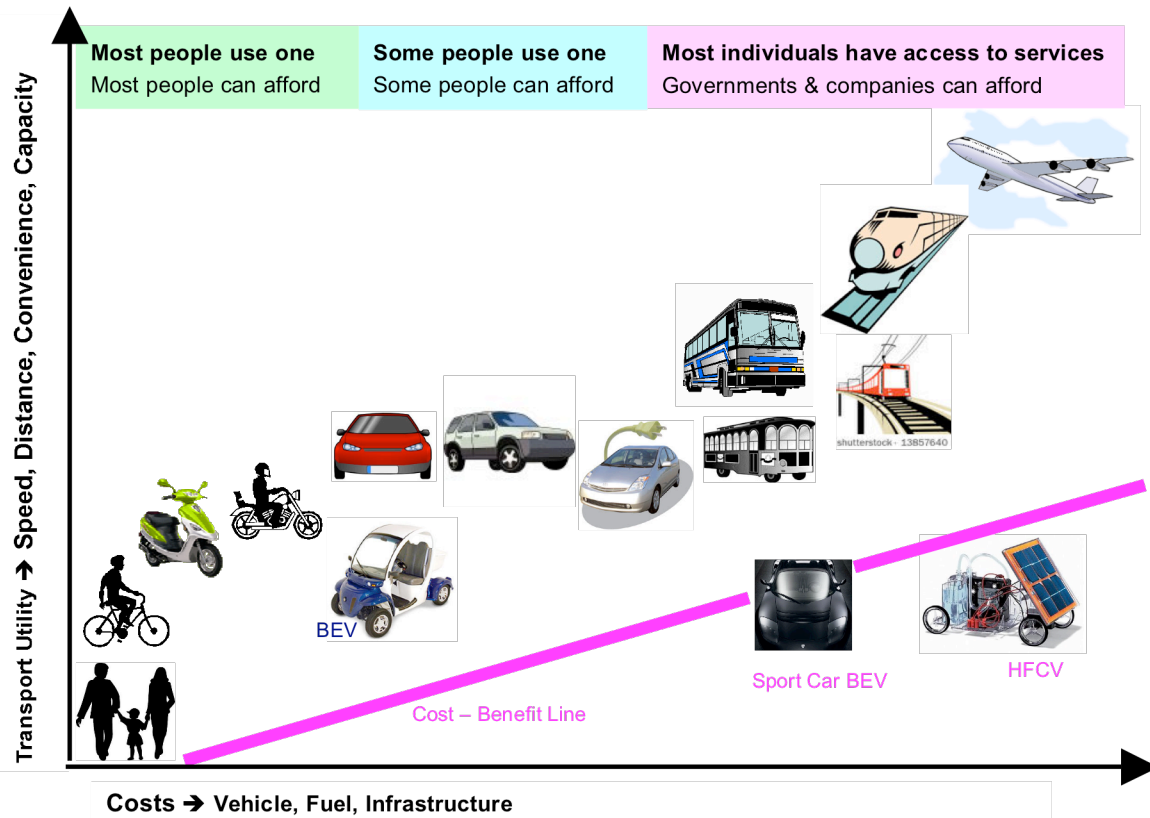
Sustainability is achieved by eliminating the unsustainable aspects of current systems. So much of the unsustainable nature of modern cities is due to use of fossil fuels and car and truck-dominated transportation systems. The sustainable city will have many interesting and new elements and designs. But the renewable energy transportation system will be a hallmark of the re-development. It will also be a major source of financing as the technical designs can be certified to represent substantial carbon emissions reductions.

Designing a truly sustainable transport system which will be adapted to easily will require new transition engineering capabilities. These new capabilities have been emerging here in Christchurch over the past decade through world class research. Researchers can work with professionals in a partnership that delivers a new and radically successful city that can demonstrate the post-carbon future urban form to the rest of the world.

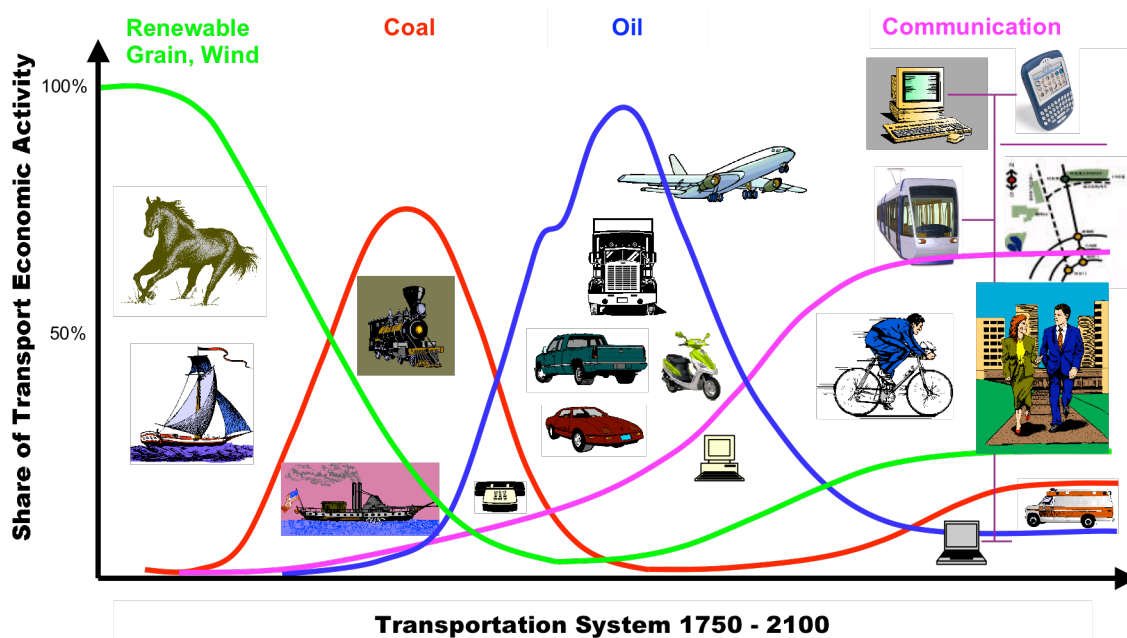
It would be wise to engineer the new city to fit within energy and resource boundaries



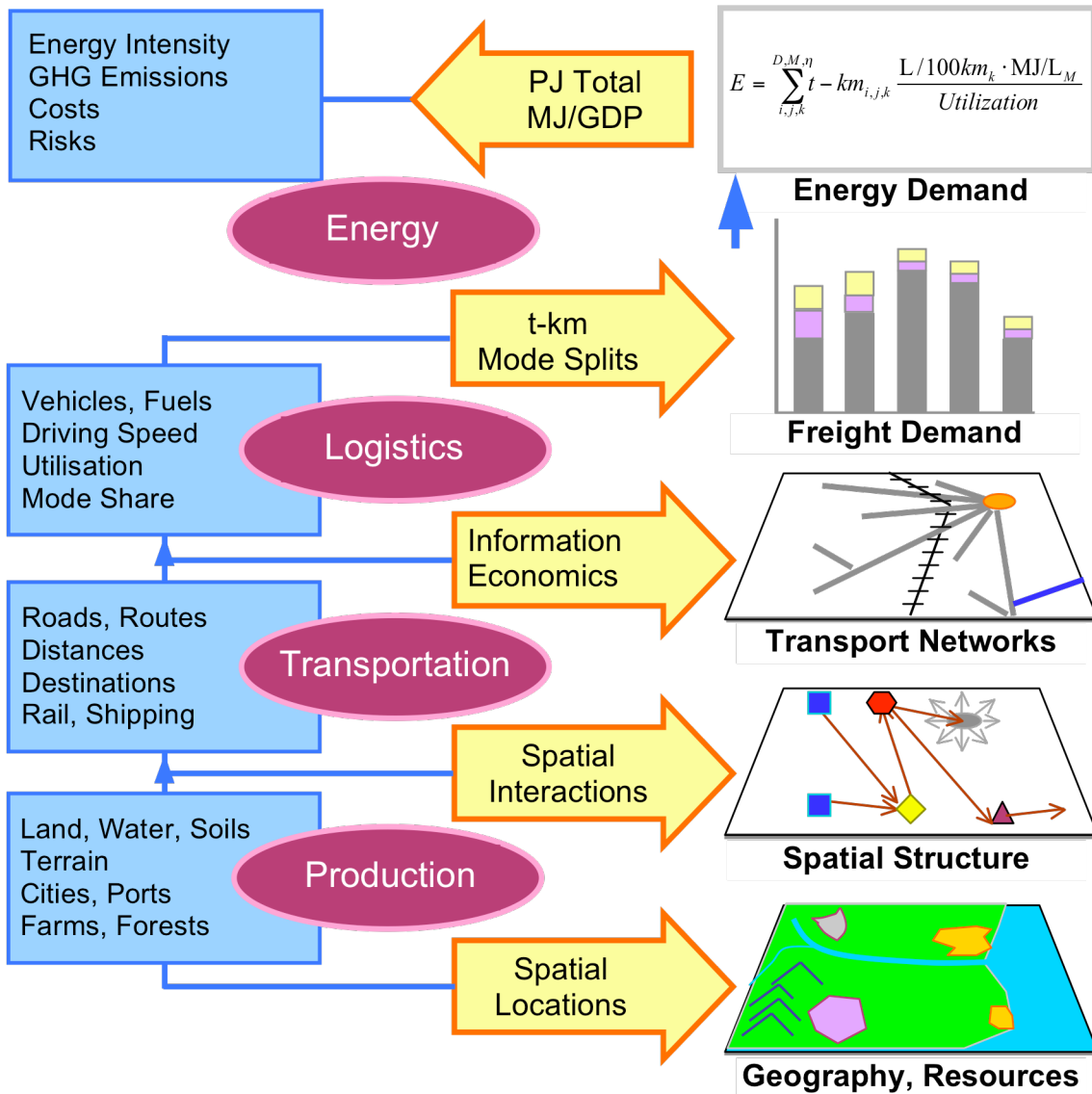
All of the tools for analysing, modelling and designing complex systems will be used to plan for a Sustainable City that is resilient to transport energy decline.



The Sustainable City design will hinge on a 150 year plan for transportation of people, goods and access to services based on engineering and affordability



Primary Production, Freight and Goods Movement



New analysis tools and engineering modelling will be necessary to ensure long-term resilience of production systems, businesses, industry and supply chains.