Executive Summary

America is entering a tumultuous period unrivaled in recent history. We are facing a disruption of our economy only rivaled by the Great Depression. We need to come to grips with our reliance on foreign oil that is at the heart of our national security problems. We are confronted with the challenge of global survival because of climate change. Finally, our economic growth over the past several decades has left many in America behind. These were the key issues in the recent presidential election which was essentially an eighteen-month national visioning process that established societal goals of reducing CO₂, decreasing dependence on imported oil, and increasing economic well-being for all Americans. The goals established through this extensive national debate and election started a transformation process that will enable America to overcome the enormous challenges we face and initiate an investment program that will continue for decades and through this century. The societal goals, articulated in broad scope, must now be translated by the President and Congress into explicit performance standards and policy directives which will, in turn, be applied within each of the nation’s megaregions to create a “Strategic Investment Framework” to meet the national vision and goals. Our global competitors are keenly focused on how to envision and build this new 21st century society. We must do the same.

A Strategic Investment Framework

The 19th and 20th century growth of the United States was foreseen and accomplished in part through a series of far-sighted plans and investments that were designed to tackle the major challenges to economic growth and prosperity of their day. It will come as a surprise to many that America has had several comprehensive forward-looking national investment strategies that helped shape its development from the very outset, beginning with the Gallatin Plan in the early 19th century (1808). A century later, Theodore Roosevelt’s conservation plans were developed at the height of the era of unparalleled large and unregulated industrial production (1908), followed by a new blueprint for growth and development in response to the Great Depression which came to fruition in the form of the New Deal-era National Resources Planning Board, which itself led to the Interstate Highway System of 1956. (Fishman 2007)

Just as the interstate provided a blueprint for the country’s transportation infrastructure expansion in the second half of the 20th century, we need a national strategy to reposition America’s industry and productivity toward sustainable production that will dramatically reduce our greenhouse gas emissions and our over-reliance on imported and increasingly scarce oil, and create opportunities for all Americans. The United States has great potential to compete and lead in the 21st century economy because of its vast human, natural, and technological resources. To do so, however, it must align the nation’s transportation, energy, environmental, and economic policies into a coordinated whole and implement the transformational technologies, infrastructure and growth strategies required to realize our societal goals. A systems approach and systems thinking is needed where the activities in each arena can be valued for their unique contribution, but also coordinated with and held accountable to the broader goals of growth with environmental protection and an improved quality of life for all. For example, the health hazards due to air pollution in our major urban centers will not be improved unless and until there are major changes in transportation and energy policy and technologies, and these are unlikely outside of an overall framework of economic growth. But even this is not enough. A society that grows economically and green, but fails to ensure a robust middle class and avoid the extremes of poverty and wealth will ultimately fail as a viable democracy.

Achieving this will mean rethinking how we govern and finance region-based growth, bringing all key stakeholders within each region to the table, appreciating the strengths and needs of different regions and localities, and adjusting to the compression and blending of all our traditional private and public organizations with the concomitant rise of communications and managing through “networks”. It is...
unrealistic to expect the national or even state governments to be able to prescribe the exact endpoints of the transformation or to be able to micro-manage the change process so far away from the center of economic activity. Rather, the impetus for change must come from within the major economic centers of the country that are being exposed to the effects of global competition.

There are eleven megaregions in the country that are emerging. Global Gateway megaregions contain global ports, airports, financial, marketing and communication and manufacturing centers, while Resource megaregions are agricultural and renewable resource based. (See Figure 1). Each of these megaregions is significantly affected by the logistic systems that make possible the production and consumption chains that reach across today’s global marketplace, the energy grid that will be the foundation of a renewable energy economy, and water resources that support economic activity. Most significant of all, each of these megaregions has the wherewithal to become a “first mover” in implementing new ideas.

Transformative Change Will Be Required

In adopting this new agenda, it is essential to combine the goals of economic growth, environmental and health safeguards, and an improved quality of life for all the people of a region so that these become the overriding measures of the region’s prosperity: a “Triple Bottom Line” (TBL) strategy.

Both presidential candidates, Obama and McCain, made it clear throughout their lengthy campaign—which was the closest we have come as a nation to a national visioning process—that critical benchmarks for measuring the nation’s success are to be in the areas of environment, energy, and economic growth: that is, reductions in CO₂ emissions, reductions in barrels of oil imported, and increases in per capita income for all Americans. Identifying the broad societal goals and principles to guide change is the first step in a transformation process. This mandate cannot be carried out in the traditional top-down fashion. The combination of extraordinary ambition, the vast number of different players who must participate, and the sheer complexity of society today, dictates that it can only be achieved from the bottom-up.

For transformational change to occur, more than Washington’s recognition of the need and a change in the federal government is required. New ways of making public policy choices, financing, and implementing public goals at all levels is required, particularly at the level of a megaregion. They follow from new models of public policy and innovative financing, introduced in the private sector and as pilots in the public sector on the smaller scale. Especially new is our weaving them together into a transformational strategy and at the systems level of megaregions. Thinking as
megaregions, working cooperatively, taking risks, and being creative in the face of countless uncertainties are necessary ingredients in the transformation required to achieve the triple bottom line.

Government agencies with narrow focus, insular attitude, and resistance to regional cooperation will need to “reinvent” themselves to stay apace. And while the funds to achieve public goals have long come from state and federal sources, in the future regions will be compelled to take greater responsibility to finance their own projects and programs, while benefiting from a greater say in influencing program outcomes and project delivery. At the same time, there is a substantial need to devise new ways for the public and private sectors to co-invest in order to achieve mutual goals and to link services with payments. Rather than being the source of direct funding, the federal and state role will be to create financial instruments and policies, and to foster the leadership that will redefine how America achieves its goal.

To realize the ambitions of TBL, the logic and design of the traditional public policymaking processes needs to be refocused and redesigned. Today the process is input driven (see Diagram 1), where citizens and stakeholders convey to political leaders ideas about the things they want and need, with tax dollars and the responsibility for implementing policies delegated to public agencies that use alternative analysis planning and decision-making, and only much later at the end of the day is it realized that what comes out of the process often fails to match what was expected, or is not in the best collective and long term interest of the public.

The needed redesign, like any good strategic planning process, must start with goal identification, clarification, and prioritization, and only then should decisions be made about how best to achieve the goals through an effective and transparent implementation process. In the context of the 21st century, this redesign is best understood in terms of a dynamic systems approach, within which the best policy implementation and accountability practices from the public and private sectors are brought to bear (see Diagram 2). The dynamic systems approach is defined by the process of “backward mapping,” or working back from goals, i.e., the triple bottom line. Backward mapping needs be designed to foster entrepreneurship and attract investment capital and new technologies that are at the heart of the economic, environmental, and social transformation being sought. The information and communication systems that have emerged are now making this backward mapping feasible. Highly decentralized implementation strategies from all sectors can now be integrated to achieve seamless achievement of goals.

For our purpose, the transformation process begins with the societal goals that were established through the presidential campaign, or national visioning process, as the starting point. These goals, articulated in broad stroke, must now move to being translated by Congress into explicit performance standards and directives in each of the policy domains - transportation, energy, water, environment and economic development. These, in turn, will be applied within each of the nation’s megaregions to direct an investment strategy that will meet the goals. Within each area of the country, decision making and implementation will be based on performance criteria so that outcomes are produced that realize the goals of the national vision. This decision making process of outcomes based on performance will not only generate benefits that individuals find useful, but will also benefit society at large. Within the systems context, the outcome from one policy domain arena must be understood in terms of how it feeds into one or more of the others, how the cumulative effect adds up to the broad societal goals, and how in turn this loops back to both the existing conditions on the ground, and renewed aspirations and vision for a better society. A systems approach is also useful in ensuring that regional priorities and their implementation complement each other in support of the national vision.

One of the greatest challenges is to create a decision making process that meets the test of substantive needs, i.e., the TBL, and timeliness, while withstanding the test of a genuinely democratic society. In other words, it should give people confidence in the process, enable consent, and provide accountability. To assist in developing an investment
Visioning & Aspirations
via public / political engagement and planning (e.g. 2008 Presidential Campaign)

Existing Conditions, Institutions & Capacities

Desired Outcomes (2008)
Economy
Imported Oil
CO2

Critical Policy Domains
Transportation
Energy
Environment
Economic Development

Necessary Operating Principles
• Explicit domain specific yet mutually reinforcing goals
  • Performance based management
  • Performance based procurement
  • Performance based funding with return on investment where feasible
  • Internal policy cross-checking capacity

Center for Excellence
(3rd Party Assessment)

Task #1
Do agencies believe that their outputs adhere to mutually agreed upon societal goals?

Task #2
Performance standards assessment – are the outcomes mutually reinforcing?

Task #3
Do the outcomes produce the desired societal goals?

Policy Outputs of Policy Domains
X
Y
Z

Repeat Process
Repeat Process
strategy that meets the TBL goal, based on the cumulative outputs from the multiple critical sectors or policy domains, analytical capacity is needed in each of the megaregions to perform a set of new integrated analytical vetting and system modeling tasks (to perform the three “tests” outlined in Diagram 2), by establishing what we are calling “Centers for Excellence”.

The most important outcome of Centers for Excellence will be achieving mutual goals in the investment decisions that span the separate program areas, multiple agencies, and various levels of government found in every large economic megaregion. These megaregions are generally larger than states and one state, California, has two of these megaregions. Presently there is no governmental structure for making decisions and managing these areas. The historical political dynamic in the country has been characterized by a struggle between federal and state actions. Now we are confronted with a policy need where this struggle leaves a void. So, in addition to the difficulty of bringing domain specific activities together, it must be done at a megaregional scale.

To be successful in creating effective investment strategies that are determined by the TBL, the Centers for Excellence model of universities networking with each other and with the political, business, interest groups, and networks in their region will be established. Instead of a peer review approval mechanism, they would be overseen and administered by a body that would be above the cabinet level at the federal government. The functions of each Center for Excellence would be to draw upon the credibility that universities have in our society as honest brokers and capture their analytical and incubator energies to mobilize the transformative investment strategy in each of the megaregions. This would not be a new use of universities’ applied service role, as they are now playing a similar role within the Homeland Security Department, where they provide risk, cost-benefit and policy analysis to the department and other governmental entities. There is also precedent for how these Centers for Excellence would operate in the work that the University of Pennsylvania, working with the Regional Plan Association, has performed in developing the concept and the analysis of megaregions that led to the formation of America 2050. What would be new is the integrative role they would perform. Their review and support would depend on how successful they are in mobilizing their megaregions.

The functions of a Center for Excellence would be to assist the political jurisdictions in the megaregion, e.g., the multiple MPOs, watershed agencies, utilities, cities and counties, in developing an investment strategy that is outcome based and is mutually supportive of the triple bottom line goals. They would provide assistance to the jurisdictions and serve as a forum for the exchange of information and ideas. They would serve as a catalyst working with the private sector for the new technologies and transformative infrastructure that will be required to be successful. Finally, they will monitor and report on TBL implementation.

Lastly, the ultimate test for each megaregion will be to forge strategies for each arena that are mutually reinforcing; we must create a situation where the gains to individuals and organized interests in each domain also maximize the common good. In short, we need to maximize “collective self interest”. This requires a balancing of push-pull factors. Experience and history have shown that without outside pressure or influence, collective self-interest will not be realized. Nor will it be realized if solely imposed from outside, especially from above. Conditionality1 requirements set through federal financial assistance and incentives and requirements (e.g. CO₂ must be reduced equally by all to be successful) must act as a push. At the same time, cost-effective assessment of expenditures against goals must be the pull.

Observations and Recommendations for the Centers for Excellence

- Each of the Centers for Excellence will be charged to develop an investment strategy for the megaregion’s infrastructure—transportation, water, energy, and communications—that meets the TBL goals expressed in the presidential election. The investments in each area are to be evaluated against all three goals. A decision making process that is outcome and performance based will be used to generate the greatest productivity for every dollar. Equally important in developing the investment strategy is that it employs the systems approach described above to maximize the efficiency of our investments and improve the quality of life and equity for all Americans. Visioning initiatives across America from Portland to Sacramento to Chicago to Atlanta have demonstrated that local development decisions will make investments in infrastructure more productive and efficient, and improve the quality of life of our communities and regions. The Centers for Excellence must therefore be forums where the latest research within the regional network is integrated into the decision making process.

- Additionally, an outcome-based procurement process, as opposed to our current specifications driven process, will need to be put in place. The way we currently procure in the public sector (also in many parts of the private sector), is to develop specifications based on current practices, bid these practices, and select what we have done in the past. This needs to be changed. Public organizations, starting with the federal government, need to become leaders in the transformation and can do so through adopting new procurement policies. Because the needed and ultimately “best” technologies are yet unknown, outcome-based procurement should be utilized. Rather than specifying a particular technology, public organizations would specify the outcome and purchase the best solution through an open and competitive process. Being the first to purchase new technologies helps to create a market, keep prices lower

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Goods Movement: A Case in Point

The logistics industry in the United States is not only an enormously powerful economic driver, but also a major contributor to greenhouse gas emissions, particulates, and other pollutants. Conceptually, the logistics or goods movement industry meets the definitional requirements of a Large Technical System or LTS, which are the complex and capital intensive organizations that have been developed to meet the needs of modern industrial societies. In essence, an LTS is an intricate construction of technology, people, and governance structures that are sometimes created, but just as often evolve to provide necessary services. From that standpoint, the goods movement LTS can serve as a good illustration to tease out the broader implications of the TBL approach to climate change, energy policy and infrastructure development. This is especially important today given the need to reconcile economic growth at the ports, airports and intermodal centers in each of the megaregions with environmental goals while maintaining health standards, jobs and the overall quality of life throughout the region.

Although we speak of a goods movement “system”, in reality the components necessary to actually move goods involves multiple actors that span political and organizational boundaries and utilizes multiple infrastructure modes owned and operated by both the public and private sectors. Decision making is fragmented along narrow lines of self-interested actors and organizations. Even when collaborative decisions emerge, they are rarely based on what might be optimal for the entire system. Knowing this, it is worth emphasizing that the absence of coordinated governance and decision making will, in all likelihood, present the greatest challenge to the goods movement industry as it attempts to address the linked issues of infrastructure development needed to expand and provide for our economic growth with global warming and air pollution in a holistic and efficient manner.

Reducing greenhouse gas and pollutant emissions will require improved performance from a myriad of mostly mobile sources. Goods arrive and depart the ports and airports by ships which are almost exclusively diesel-powered. Landside drayage is provided by truck and rail, again almost exclusively diesel-powered. No single federal or state statute controls pollutant emissions from these multiple sources, which makes it difficult to implement an effective and equitable control strategy. Meanwhile the federal regulatory guidance in place for controlling greenhouse gases is only now evolving.

Thus, while everyone can agree that addressing mobility and infrastructure needs will play a major role in improving air quality, the regulatory environment and responses to it are fragmented. Trucks moving to and from the ports are a major direct source of pollutant emissions and contribute to the massive highway congestion that surrounds them. Reducing congestion will require substantial investments in the highway network for which no funds have been identified. Electrifying the rail system or moving to an alternative combustion-free technology will similarly require new investment, but the railroads have shown little interest in generating the necessary funds from increased tariffs. As a result, container fees paid by shippers have emerged as the funding source of least resistance although considerable opposition has developed as manifest by the Governor of California’s veto of SB 974 this year which proposed a cargo fee to address these issues.

Obviously, if the goods movement industry and those who depend on it are to thrive, the twin problems of emissions and infrastructure must be addressed together. Under the current fragmented governance structures, this is not likely. Ships, trains, and trucks must all be addressed within a single comprehensive framework in order to make the rail and highway improvements and deliver the new technologies that will be necessary to alleviate congestion and reduce emissions. Yet no single entity exists to govern the overall system and secure the financing. Similarly, the regulatory actions of environmental agencies under the Clean Air Act are not designed nor are they capable of addressing the long-term transformational investments needed. Once again, the linked problems can only be solved in a coordinated manner, but without a unified governance structure, such coordination will not occur, and all the actors will suffer. The challenge for goods movement will not be what to do, but how to get it done.
Streamline decision-making so that we shorten the time from concept to implementation. The current planning, environmental assessment, decision-making process has many redundancies. Additionally, these processes follow an alternative analysis framework with no direct link to goal achievement. Rather, the best alternative is chosen and the adverse impacts are to be mitigated by someone, generally not the implementing agency. A goal oriented, performance-based decision making process would substantially alter this framework. All projects, programs and strategies would be evaluated against the goals. The Centers for Excellence process would allow for analysis across multiple sectors. The decision would be made on goal achievement. For example, regions in California will be provided with CEQA streamlining through a recently enacted law (SB375) if they can demonstrate how land in the region is used to meet the goals of affordable housing, reduction of vehicle miles traveled and congestion, and meet CO₂ targets established under AB32. This landmark bill is the first attempt to bring multiple domains together to achieve global warming target reductions and streamline the decision making process.

Transformative investments will require a transformation in the skills of our labor force. An essential element of the Centers for Excellence will be a coordinated educational and training program within the megaregion.

Financing the investment strategy will require new sources of funding that do not put additional burdens on our rising debt. We are currently spending $350 billion per year - about 2 percent of our GNP - from all levels of government. This amount will need to be substantially higher - 4 percent to 6 percent, double or triple our current level of expenditure. (Little 2008) Another delay factor in completing these transformational infrastructure problems is the difficulty of pulling the various sources of funding together through multiple congressional, legislative and local funding cycles. Because of this funding uncertainty, the decision making process focuses on short term incremental projects and strategies and substantially increases the implementation period of large projects.

One intriguing proposal is to use Social Security, state pension funds and private 401(k) accounts to invest in revenue-generating infrastructure projects to obtain the level of investment capital needed. Funds would be invested in credit worthy projects generated by the performance decision making process. Users of the system would amortize these investments. The primary federal role would be to provide credit enhancement and back-stop these investments. To justify this federal role there will be a need for a national oversight system to be established. These investments will provide for our collective future and they will also create a more secure personal future (Little 2008). Utilization of this financing tool could be a conditionality provision in the decision making process to arrive at goal achieving investments.

Regulatory policies should incentivize strategies to meet the TBL goals including requirements contained in the national program to achieve our air, water and climate objectives. The provisions of these strategies should be structured so that they encourage investment in the longer term transformational technology and infrastructure investments. If a cap and trade framework is utilized, then the trades need to demonstrate that they meet the TBL goals within the megaregion. If the trade is outside the region and it does not meet all three goals, then the trade must be accompanied by compensation to the megaregion. Alternatively, a distributed pricing structure could be used to incentivize the desired investment or behavior. The Clean Air Act provides the authority for this approach, but it has not been utilized. For example, in the goods movement area, a price could be imposed on the discharger equal to the cost of damage from the emissions. The discharger could innovate, change technology, or pay to have another party innovate and build new systems. Ships, for example, could change fuels, change their equipment or pay another party – public or private – to collectively accomplish this objective. The same is true for trucks and trains. These regulatory provisions correctly structured would also serve as conditionality provisions.

Reporting of progress against the TBL and providing clear accountability is essential. The goals and the performance standards used in the decision making process must be quantified if they are to be used to make funding decisions. Strategies must factually achieve these goals and objectives. Then, on a regular basis, public agencies must measure and report on the progress made in achieving them. An annual State of the Megaregion report prepared by the Center for Excellence would be submitted to the participating entities in the megaregion and to the federal government. A Further Progress report of the agencies or the annual reports of all entities are examples of instruments that can also be used to jointly report on the collective self-interest progress toward the TBL. Of utmost importance, once the new framework is embraced and more transparency and accountability is achieved, is that the public will be far more willing to pay - to invest - in the region’s well being and a prosperous future. Megaregions and, through them, the nation, will emerge as models for meeting the triple bottom line in a competitive, 21st century society.
The Importance of Performance Based Assessment: linking performance to societal goals

Performance-based decision making starts with societal goals that are determined through the involvement of as many individuals, organizations and different interest groups as possible. In a democratic society, an ideal opportunity for goal setting could be elections for higher office, but this requires maximum participation, clear articulation of the goals and alternatives, and a thorough airing of the implications and costs. Seldom do you have an election that accomplishes all the basic demands of a defensible goal setting processes. The 2008 presidential election was an eighteen-month nationwide goal setting process that sets the country on an investment path for the next fifty years.

Coming to grips with the global warming world, and rebuilding the economic opportunities for all Americans in a global economy will challenge our decision making capacity. Performance standards properly constructed and used will be a critical tool to translate action and investment into goal accomplishment. Performance standards should connote an outcome that is needed or useful to individuals. They are not measurements of activity, but rather of utility or purpose. For example, trip making and travel, which is the major focus of transportation discussions, are activities or outputs, but they are not outcomes that provide utility to individuals such as accessibility or mobility. Similarly, emission reduction is an activity, but sustainability and health are the outcomes that we desire. The following are some of the basic principles that would be helpful in developing a performance standard.

- It should be simple and easily understood by decision makers as well as individual and stakeholders.
- It should articulate clear outcomes without ambiguity.
- It should be uniformly applicable across various investments areas.
- It should be applicable across time and between geographic areas.
- Most critically, it must be based on readily available data and be technically defensible.
- It must relate to the policy direction of the Triple Bottom Line.

The following is a start in developing performance standards that meet the above principles and would be used in the decision making at all levels - national, megaregional and local.

1. Mobility. Mobility captures the speed at which opportunities can be accessed within megaregions. Opportunities could be jobs as well as other social and recreational opportunities. For goods the velocity of travel is directly related to the inventory/sales ratio. Improvement in mobility would reflect improvement in the transportation system itself and refers to the ease with which individuals can move about. It is measured on a per person trip/container basis by person/container hours of travel.

2. Accessibility. Accessibility captures the ease with which opportunities can be accessed. Accessibility generally pertains to land uses. Accessibility considers the distribution of ‘destinations’ so that policies might be evaluated - not only in terms of moving people to their destinations, but also in terms of moving destinations to people and is measured by the trip length frequency distribution.

3. Environment. This performance indicator pertains to reducing the environmental side effects of investment choices on land, people, and animal life. It is measured by changes in human health indices, environmental quality indicators for plant and animal life, and the usability of natural resources, e.g., water. When contemplating investments, consideration has to be given to sustainability wherein development meets the needs of the present without compromising the ability of future generations to meet their own needs.

4. Safety. This criterion pertains to reduction of fatal and non-fatal accidents depending on the investment choices made. Safety refers to the physical design and operation of the system. Safety is measured in accidents per unit of investment for goods, people, water, and/or energy.

5. Reliability. Reliability pertains to on time performance and the probability of arriving at a destination at the expected time for goods, people, water and/or energy.

6. Equity. This criterion intends to measure fair distribution of benefits to different segments of the society that would result from a proposed investment. At the same time, it is also intended to ensure that any segment of the society does not bear disproportionate share of adverse impacts of the proposed investment options.

7. Cost effectiveness. Cost effectiveness refers to the potential for receiving the greatest return possible on monetary investments. The cost effectiveness of investment should be considered from the perspective of the user and society. When calculating cost, all components of cost should be considered—capital, operations and maintenance, and replacement and externalities. The ultimate investment and priority decision is determined by the amount of performance benefit or utility that is derived per dollar invested. The outcome is measured by the amount of benefit or utility that is derived from the strategy, program, or project to the life-cycle cost.²

² This discussion is based on a paper by Mark Pisano and Hasan Ikhrata, “Performance Indicators: Where are we now?” The paper provides the utility functions and calculations of performance of the transportation system in the Southern California Region.
Needed Changes in Federal Policy

In the past, when confronted with seemingly difficult constraints, the nation developed long-term growth strategies that guided the country to undertake the changes and innovations that enabled us to grow our way out of problems and to realize our goals. This led to cross-cutting investment plans that met the competing goals of the time, i.e., building canal, railroad and road systems and the agriculture and manufacturing sectors they supported. We achieved these innovations through our political and institutional systems which historically have been our greatest competitive advantage. Our challenge now is how we achieve the triple bottom line goals with new cross-cutting investment plans.

The most effective strategy in accomplishing this Strategic Investment Framework is bringing the five historically separate strands of public policy together (transportation, water resources, energy, environment, housing and urban development, and economic development), and holding them accountable to the TBL. The national polices for each of these areas are currently being (re)established through separate reauthorization and appropriation bills. Each of these separate legislative actions is insufficient to chart the new course needed for America due to design, implementation, and political limitations. Integrated structures in both the executive and legislative branches, similar to the Centers for Excellence, need to be established. President Obama could establish a cabinet level board to coordinate across transportation, water, energy, housing and urban development, and economic development agencies. The Board would be charged with coordinating the Administration’s input to Congress on the goals and performance standards adherence of program and financing initiatives and would be responsible for guiding and evaluating the Centers for Excellence.

In the past, both houses of Congress have established special committees to integrate the work of multiple committees and bills (e.g. Homeland Security). Congress should establish an Economic Recovery and Renewal Council that would establish cross-cutting national policy goals to achieve the TBL and performance measures in the policy areas described above.

A targeted function of the Economic Recovery and Renewal Council would be to develop policies that support economic opportunity and sustainable development in all regions of the country. One of the most serious challenges facing our country is crafting an economic development strategy that allows all Americans to share in prosperity. In the past two decades, the county has grown unevenly. Particular emphasis and funding will be needed to link the fast-growing megaregions to the areas of the country whose economic base is declining. A potential area of economic growth for the underperforming regions is in the generation of renewable energy and/or the manufacturing of technologies and components needed for a transition to a low-carbon economy. Center for Excellences in these regions should focus particularly on workforce development capacity in these areas.

Conclusion

Some will argue that simultaneously pursuing all three dimensions of the Triple Bottom Line, and doing so through the process of backward mapping, thinking and acting at the megaregion level, and changing in the financing structure is impractical, if not unimaginable. Our response is that it is harder yet to imagine how our goals for economic rebirth, greenhouse gas reduction, elimination of our dependence on foreign oil, and an improved quality of life for the individual regions and the nation as a whole can be achieved without the political, economic, and technological changes embodied in comprehensive, system-wide transformation. Furthermore, we are optimistic it can be achieved because of the long history of innovation and invention by the nation in times of need. These accomplishments required imagination, effort, and enterprise.

Moving Forward

The shift required to move to a backward mapping, megaregional and redirected financial structure is daunting. The following are suggestions on how we can start:

1. Use the goals of CO2 reductions, reductions in imported oil, and increases in per capita income and the performance standards of mobility, accessibility, environment, safety, reliability, equity and cost effectiveness as the starting point of a Strategic Investment Framework. All expenditures of the nation’s resources should meet these goals.

2. The American Recovery and Renewal Act should send a signal that America’s future rests on investments that will not only create new jobs, but also address our national goals and improve our competitiveness. Given the backlog of needs and projects in the country, those that meet these tests should be accelerated.

3. The President should immediately establish a National Economic Recovery and Renewal Board through an Executive Order to coordinate the Strategic Investment Framework for the nation. Its first task would be to assist in the implementation of the economic stimulus program and avoid wasteful expenditures. The Board would also develop an operational design on how Centers for Excellence would work at the megaregional level and review legislative proposals related to implementation of the national goals.

4. The Congress should pass a law creating an Economic Recovery and Renewal Council that establishes cross-cutting goals and performance measures in the following areas: the American Recovery and Renewal Act, the Surface Transportation reauthorization, and Climate Bill and reauthorization of the Energy Bill.

5. In developing these legislative proposals, include provisions for performance based planning, an environmental review process, and a procurement process.
6. Develop the incentives needed to promote implementation of the national goals.

7. Within each of the eleven megaregions establish a Center for Excellence that would perform the functions described in this paper starting with the refinement of the transnational system.

8. Develop a new finance mechanism for transformative infrastructure that harnesses federal, state, and private pension funds.

SOURCES:

