Worldly Strategy for the Global Climate

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Progress in dealing with the problem of climate change will require that the institutions of government, business, and community work, not in isolation from each other, let alone at cross purposes, but by reinforcing each other's efforts through consolidation.

What can Elon Musk, Naomi Klein, and the previous King of Bhutan possibly have in common? All are effective organizers in addressing climate change, albeit each in his or her own way. Musk, an entrepreneur in the private sector, founded and heads Tesla, which manufactures electric cars that challenge the carbon-fueled dominant design. Klein is a writer and social activist, working in what we call the plural sector—comprising associations that are neither public nor private, many rooted in communities.[1] Her 2014 book, *This Changes Everything: Capitalism vs. The Climate*, was written to influence climate change through movement building. And the previous King of Bhutan, Jigme Singye Wangchuck, a visionary in the public sector, has arguably had the most tangible impact of the three to date, albeit limited to his small country. Under his tutelage, the forest cover of Bhutan increased from 40 to 60 percent, sequestering more carbon in the process.

Technological solutions matter in dealing with climate change, as do economic considerations. What requires more attention, however, is the organization of efforts by the three sectors of society, locally and globally, and the consolidation of strategies across the sectors, in a process we wish to call "worldly," rather than global, to encourage bottom-up learning more than top-down planning.[2]

We examine 12 existing climate change initiatives—some well-known, others not—to show that they amount to a collection of separate strategic positions more than an integrated strategic perspective. These positions suggest three forms of organized action: *orchestrated planning,* which tends to be characteristic of many efforts in public sector governments; *grounded engagement,* most common in plural sector communities*;* and *autonomous venturing,* which is favored especially in private sector enterprises. While there is merit in each position, it is through consolidation of the three that significant progress will likely be made in addressing the problem of climate change.

Climate Change Initiatives
Consider the following 12 climate change initiatives, the first four in the public sector, the next four in the plural sector, and the final four in the private sector:
1. The **Paris Agreement** of the United Nations Framework Convention on Climate Change (COP21) came into force on November 4, 2016, following the 11th meeting of parties to the 1997 Kyoto protocol. It calls on the almost 200 signatories "to pursue efforts to limit the temperature increase … to 1.5 degrees Celsius" above pre-industrial levels, through "ambitious" but "non-binding" "nationally determined contributions."[3]
2. **Carbon taxes** and **cap-and-trade markets** have been implemented, or are scheduled for implementation, at transnational, national, state, and local levels—for example, in the

European Union, Chile, several New England states, and Tokyo. Together, these efforts address 14 percent of the world's greenhouse gas emissions.[4]

3. Sixty percent of the **forests of Bhutan** have been preserved by decree, through the work of its Gross National Happiness Commission, established by the previous King. The commission has also prohibited private road traffic one day a month.

4. The United States, European Union, Canada, Japan, China, and Brazil, among other countries, have adopted **fuel economy standards for passenger vehicles** sold in their jurisdictions. (Road transportation accounts for 10.5 percent of global greenhouse gas emissions.[5]) In the European Union, the target is above 26 kilometers per liter, compared to the year 2000 target of just over 15 kilometers per liter.

5. Residential buildings account for 10.2 percent of global carbon emissions, and commercial buildings an additional 6.3 percent. The US Green Building Council is a non-profit organization that promotes sustainability through its **green building certification program** (Leadership in Energy and Environmental Design, or LEED). Buildings receive points for features such as energy efficiency and on-site energy production (micro-generation). These buildings typically sell or are rented out at premium rates.[6]

6. In 2015, the Sierra Club's **Beyond Coal** campaign celebrated the retirement of the 190th coal-generation facility in the United States since its 2010 launch. In the summer of 2018, the number of closures grew to 270. Coal power is a particularly emission-intensive form of electricity generation, responsible for 25 percent of global emissions. It is the largest US contributor to climate change.[7]

7. Because children can capture the attention of their parents, the Girl Scouts of the United States has engaged its members in learning about energy-saving behavior. One study calculated that the **Scouts' education campaigns** have reduced energy usage in these households by 5 percent on average.[8]

8. **Wind power** has become one of Denmark's leading industries. Its growth began in rural communities during the energy crisis of the early 1970s. Simple turbines were made with local materials, using designs developed by Christian Riisager, a carpenter, and Karl-Erik Jorgensen, a mechanic. This knowledge was shared and refined through locally organized "Wind meetings" (*Windmøde*); eventually 10 wind energy manufacturers were established, among them Vestas Wind Systems, currently the world's largest wind-turbine producer[9].

9. Tesla has developed vehicles, batteries, and chargers that have positioned **electric cars** as not only a viable choice of vehicle, but a prestigious one. When charged with electricity generated from renewable wind and solar power, driving a Tesla can be significantly emission-free.

10. Philips, the electronics company, sells **lighting** as a service. Customers pay only for the light generated; Philips supplies, installs, and maintains the equipment at its expense. According to its management, installations in Singapore, Buenos Aires, and elsewhere are reducing energy costs and associated emissions by 50 to 70 percent, resulting in particular from the superior, long-term energy efficiency of LED lighting.[10]

11. A **vegetable protein** called Pulled Oats was the phenomenon of the 2016 Finnish food market, riding the global wave of demand for sustainable as well as animal-free foods. Vegetarian food products reduce the use of livestock, which contributes 5.5 percent of worldwide greenhouse gas emissions.

12. Communauto is a **car-sharing** company in Montreal that provides personal vehicular transport to its members on an as-needed basis. According to its calculations, each car in the fleet displaces at least four privately owned vehicles from the road.[11]

Some of these initiatives have achieved significant success while some others show the potential to do so. Certain ones have been decidedly deliberate, as in the Paris Agreement that emanated from a meeting of heads of almost all the governments of the world, while others have emerged locally, from grounded learning in communities, as in the Danish wind meetings. Then there are the initiatives developed in the private sector to capitalize on competitive advantages, as in the Philips example. Most notably, all of these initiatives tend to exist apart from the each other. Each occupies an isolated strategic position.

We have listed these 12 initiatives by sector—four in each—because the public, plural, and private sectors seem to favor different processes. We label these processes *orchestrated planning, grounded engagement,* and *autonomous venturing* respectively, and discuss the tendencies for them to be used in particular sectors. (See Table 1, "Processes of Organizing Action for the Global Climate").

Orchestrated Planning in the Public Sector

In the public sector, especially in large national governments (compared with municipal ones, closer to local concerns), we find an inclination to favor *orchestrated planning.* Government climate change initiatives tend to be centrally conceived, analytically driven, and strategically deliberate. Because governments often need to legislate before acting—in other words, to formulate before implementing—their policy-making processes are inclined to be deliberate, explicit, and prospective.

Orchestrated planning is thus usually enacted in government in top-down fashion: to pledge, plan, and police, from the political leadership to the civil service, and then sometimes out to the broader society, as in the example of carbon pricing. This may rely on imposed controls of one kind or another—mandates, constraints, regulations, decrees—or else on incentives to encourage desired behaviors. Among our four government initiatives are state regulations and multilateral agreements as well as the decree concerning the forest cover of Bhutan.

Given the immensity of the climate change problem, it is not surprising that many concerned people call for this kind of orchestrated planning. As inspiring examples, they can perhaps point to the 1961-72 Apollo project, which landed human beings on the Moon for the first time, and the Marshall Plan, that gave American economic assistance to Europe after World War II. But Leviathan societies are not currently favored, at least in Western contexts, and the experience of the Kyoto Protocol, signed in 1997 and subsequently ignored by most of the world, illustrates the obstacles facing state planners.

Yet some efforts related to the global climate have succeeded, even beyond expectations, albeit with a narrower scope. The 1989 Montreal Protocol on Substances that Deplete the Ozone Layer called for industrialized nations to stabilize and then reduce the chlorofluorocarbon (CFC) production and consumption that was causing the problem. Although it is now widely and justifiably heralded as a breakthrough, in 1989 scientists and many signatories knew that its initial provisions were insufficient. Thus the treaty was designed to be flexible, to allow more ambitious targets as new science came to light. In other words, here, and perhaps more often than

is widely recognized, the Protocol facilitated emergent learning alongside the centralized planning of the public sector.

In this case, however, the political and economic stakes were lower and the ideological differences less stark than they are for climate change today. The Kyoto Protocol attempted to address this problem in one fell swoop, with a comprehensive accord—a deliberate strategy, immaculately conceived. Its failure suggests that relying on governments alone to take the lead in combating climate change may be wishful thinking. The world is a rather messy place for those who believe that problems can be worked out by clever analysis in sterile offices.

Grounded Engagement in the Plural Sector

The plural sector includes those formal and informal associations that are neither publicly owned by government nor privately owned by investors. Some are owned by members, such as cooperatives, while others are owned by no one, such as the Sierra Club and the Girl Scouts. A decade ago, in his book *Blessed Unrest*, Paul Hawken put the number of such efforts at more than one million worldwide.[12]

Plural sector associations tend to favor *grounded engagement* over orchestrated planning, although the philanthropists and foundations that support some of them may not always be sympathetic to this tendency, let alone understand it. Here strategies often emerge from the experiences of learning, which means that all kinds of people can be strategists. Think of this as thousands of flowers blooming, thanks to all kinds of social entrepreneurs. And just as flowers bloom in local fields, so too do social initiatives tend to appear in local communities, usually in response to local concerns, even if some eventually develop into global institutions, such as in the case of Greenpeace.

The success of these initiatives usually require intensive commitment, personal as well as communal. When this is present, change can be abrupt and sizable, as was the case with the anti-fur movement which became a global phenomenon in the 1980s and changed the habits of many toward wearing fur coats. The potential of the plural sector to drive change in society should therefore not be underestimated, even though such change can be unpredictable.

Autonomous Venturing in the Private Sector

Businesses, as independent enterprises in the marketplace, are most inclined to favor autonomous venturing. This can be especially true for those businesses led by creative entrepreneurs, who develop new products, services, and technologies that address societal needs, such as in the examples of Tesla and Pulled Oats, discussed earlier.

Private sector mindsets about climate change have been shifting over the years. What was initially considered by many executives as unrelated to business later became viewed by some as threat to business, and is now more widely seen as a font of opportunities for business—as in the example of Philips. In a 2017 survey conducted by *MIT Sloan Management Review* and the Boston Consulting Group, 90 percent of executives saw sustainability as a priority for their business[13]. Of course, many smaller companies are also so engaged, for example in developing new types of solar panels, software to manage energy distribution, and carbon-trapping building materials. Governments can provide incentives to stimulate such venturing, but never with the assurance of what will result.

Strategy here tends to combine the characteristics that we have described in the other two sectors. Large established corporations may naturally favor top-down, deliberate strategies, while entrepreneurial ones may be more inclined to adapt on the fly, as Musk has done repeatedly at

Tesla. He has taken the company from luxury car manufacturer to mass producer of batteries and provider of electrical infrastructure. That novel ideas can emerge anywhere in such enterprises, as well as in large corporations for that matter, suggests the presence, indeed a natural combination, of deliberate and emergent strategies in the private sector—in other words, a kind of top-down bottom-up hybridity within enterprises.

The Limits of Isolated Action

As suggested, many people look to government to face the problem of climate change: Let the ultimate authority in society manage the threat. Certainly government has to set constraints, to protect the citizenry, and can provide incentives to encourage multiple solutions for public problems. But government alone cannot do it, nor sometimes even lead the effort to get it done, as was indicated by the Kyoto protocol's failure, and may be further illustrated by the Paris Agreement negotiated at the 2015 United Nations Climate Change Conference (COP21).

      Others favor business to take the lead, expecting that corporate enterprises will save the planet from global warming. Businesses can certainly contribute solutions, but progress so far does not support this position. Companies such as Tesla may captivate the public imagination, yet the number of electric cars on the roads remains small— just over 0.1 percent of the global stock. Meanwhile, some powerful energy companies have been discouraging a meaningful shift away from carbon-based fuels. On the whole, the response of most companies appears to be marginal—for example, greening the office while carrying on with business as usual. There is little reason to see business as taking the lead.

      This leaves the plural sector. As suggested earlier, grounded engagement has sometimes created groundswells that have led to profound social change. But plural sector efforts cannot accomplish this alone. Businesses are usually necessary to produce the products, services, and infrastructures that bring needed new practices into daily life, albeit sometimes after being urged to do so by the activism of plural sector associations and by the regulations or incentives enacted by governments. And such government legislation may result from plural sector pressures to legitimize new norms—in other words, to render deliberate what has emerged from civil society. Thus, while the plural sector may play a key role in initiating significant action, no one sector can resolve the problem of climate change in isolation from the other two.

Collision or Consolidation?

Can action on climate change be driven by pressures, if not outright confrontation, between the sectors? Yes, to some extent. But substantial progress toward attaining a strategic perspective beyond what has so far amounted to a collection of strategic positions, will require substantial consolidation of efforts across the three sectors. Working across sectors, let alone across institutions within them, is hardly simple, but it must happen.

      Too often the sectors have worked at cross purposes, for example when advocacy campaigns in the plural sector drive businesses to become defensive instead of constructive, or when business pressures marginalize potentially beneficial efforts by NGOs. Likewise, government planning can stifle commercial innovation, for example, with regulations that negate potentially good ideas, just as corporate lobbying can block regulations that are essential. And believing that business or government must take the lead can discourage the plural sector, which lacks regulatory and financial power, but has the advantage of being close to communities.

      When the sectors work at cross purposes, the danger is a downward spiral, toward implosion. (See Figure 1, "When Organized Efforts Collide") As illustrated counterclockwise in

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the figure, activists protest, boycott, and sometimes sabotage the efforts of businesses, while businesses lobby governments to loosen regulations and governments carry on with pledging and planning detached from private and plural activities on the ground.

By contrast, when the three sectors work together, to constructively reinforce each other's efforts, they can together generate an ascending spiral of consolidation. (See Figure 2, "When Organized Efforts Consilidate"). Activism in the plural sector encourages governments to enact legislation for regulating and incentivizing private enterprises, and these provide the citizenry with the goods, services, and infrastructure needed to combat climate change. Each activity can thus spawn more activities in the other sectors as well as in its own, so that, together, they can feed this ascending spiral of consolidation. Perhaps more significantly, there can also be constructive *networks* of consolidation, as the organizations of the three sectors interact with each other in many different ways—alliances, partnerships, joint ventures, and so on. Of course, some confrontation alongside cooperation can be useful, such as when one NGO protests irresponsible corporate activities while another supports responsible ones.

In any event, addressing the problem of climate change will likely require that each of the sectors attends to what it does best, in conjunction with the other two. In general, communities engage, governments legitimize, and businesses invest. We believe that this is how healthy societies progress. To illustrate this point, let us consider three examples, at the global, national, and municipal levels, respectively.

Consolidation at the Global Level: B Lab for B Corps

B Lab started as a plural sector initiative that "serves a global movement of people using business as a force for good." It was established as a US nonprofit organization in 2006 by two ethically minded entrepreneurs who had sold their athletic apparel company and subsequently saw much of its commitment to social responsibility dissipate. Recognizing that the tendency toward social indifference was endemic to corporate governance systems worldwide, they promoted legislation for a new corporate form, responsive to all stakeholders.

B Lab leverages the strengths of all three sectors. It works directly with governments to introduce a new corporate charter, called a "B Corporation," with explicit attention to a triple bottom line of financial, social, and environmental results. This frees corporate executives from judicial precedents and norms that have forced them to maximize shareholder value—a fiduciary duty that has hobbled many efforts to work climate change mitigation into strategy. B Lab certifies standards that enable companies to become B Corporations, and provides a rating system that supports the growth of impact investing for sustainability. The consolidation of efforts across the B Lab NGO, the supporting governments, and the B Corporation members exemplifies what can happen when the three sectors collaborate.

As of 2016, 31 American state governments had passed legislation providing for the new corporate charters, while a similar movement, Sistema B, was created in Latin America, as were initiatives in Canada and the United Kingdom. More than 1,800 firms in 50 countries and 130 industries have successfully completed B Lab certification, among them a handful of publicly traded companies such as Natura in Brazil and Etsy in the United States[14].

Consolidation at the National Level: The Danish Experience

Efforts by the three sectors in Denmark to boost the use of wind power exemplify a consolidated perspective on renewable energy. As noted earlier, Danish wind power originated primarily in community efforts—led at various stages by actors such as Riisagen, Jorgensen, and others who

contributed to adapting a 1947 turbine design by Johannes Juul. As initial prototypes were deployed, owner-users of the turbines banded together to form the Danish Wind Mill Owners' Association, to cooperate in designing for safety and reliability. Small entrepreneurial firms participated in this learning process, based on trial and error.

By the end of the 1980s, several hundred wind turbines had been installed. This groundswell was supported by the orchestrated planning of the Danish government: As a consequence of the oil embargo of the 1970s, it developed the country's North Sea oil and gas resources while promoting a green energy transition to get itself off fossil fuels entirely. The government provided research and development funding for companies in the wind industry, and subsidized farmers who used wind turbines. It also created a certification system for turbines, which boosted interaction between governmental and business actors[9].

The Danish efforts have been notably decentralized, cooperative, and inclusive. There are policies in place to compensate homeowners for lost value from nearby generation, and each power project is required to set aside a certain percent of its shares for ownership by the community, which also has the power to veto projects. Consequently, the benefits of new power facilities are widely shared, thereby muting opposition. Moreover, 40 percent of the carbon tax Denmark introduced in 1992 goes to environmental spending, while 60 percent goes back to industry to reward innovations for fighting climate change. By 2020, Denmark expects to get half of its electricity from wind power and 35 percent of its total energy consumption from renewable sources. By 2050, all of its energy consumption is expected to be carbon-free.

Consolidation at the Municipal Level: Curitiba and C40
Consolidation can also occur at the municipal level—perhaps more easily, because municipal governments tend to be closer to people and their communities (as are many local businesses), where the problems of climate change tend to be most emphatically felt. It is one thing to read about the melting of distant polar ice caps, quite another to deal with flooding in one's own neighborhood. Moreover, municipalities are the first line of public response—the home of fire brigades, hospitals, and police.

The Brazilian city of Curitiba, for instance, has for decades been at the forefront of sustainability efforts. In the plural sector, Curitibanos have embraced urban agriculture and expansive green spaces, while in the public sector, they have invested massively in rapid transit. Their schools reward recycling with supplies, toys, and tickets for shows provided by private sector businesses.

A more conspicuous example is the C40 Initiative. Launched in October 2005 by the then-Mayor of London, Ken Livingstone, C40 is a coordinated network of 91 cities on all habited continents. Its "Deadline 2020" program is intended to implement the Paris Agreement. As major buyers of electricity, C40 cities exert influence on electricity markets to comply with a low-carbon agenda and on the construction industry to build energy-efficient buildings. while encouraging car-sharing and sustainable use of materials.[15]

In municipalities, sustainability issues such as traffic congestion are close at hand—and so are activists, who can move fast and expect local officials to follow suit. This can be divisive, but it can also encourage creative interaction across the three sectors, for example by opening up possibilities for social as well as commercial enterprises..

Becoming Worldly

We began our case for consolidating efforts across the sectors by calling our strategy "wordly" instead of "global." The term "global" tends to be associated with the economic activities of multinational corporations. It has also come to imply a kind of cookie-cutter conformity. The term "worldly," by contrast, is defined by the *Oxford English Dictionary* as "experienced in life, sophisticated, practical." This suggests the ability to venture beyond our own world, to appreciate the worlds of people in other cultures, whether geographic or institutional. Worldly business people appreciate the pressures on government officials; worldly community actors understand that businesses need to be driven by commercial interests; worldly politicians realize the need for constructive consolidation of the efforts of all three sectors; and worldly people in all the sectors know how much they can learn from their counterparts in other parts of the world, poor as well as rich. We need to cultivate such worldly attitudes to formulate collaborative strategies that address climate change.

The cycle of consolidation we propose is not about the alignment of goals, or about consensus as a prerequisite for action. Different actors can pursue the same end for different reasons, but in a manner supportive of each other's efforts. In climate change, health professionals worry about the spread of infectious diseases; diplomats may see it as a destabilizing threat to security; and insurance companies fear the financial risk of extreme weather events. More broadly, Pope Francis focuses on the world's poor while conservationists caution of the extinction of species. Yet all find some common ground in embracing a goal such as "a safe operating space for humanity," in the words of the *Stockholm Resilience Centre.*[16]

When institutions and sectors compete with each other for local or global power, they are disinclined to see, let alone solve, their common problems. We have certainly experienced enough of this. Climate change has no invisible hand to reconcile differing views, only the visible claw of a creeping warming threatening the globe. A worldly mindset can prepare actors to appreciate their differences, and thereby work together towards consolidated ascension, from group to globe.

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Processes of Organizing Action for the Global Climate

The three sectors—public, plural, and private—engage in different types of activities and strategies.

	Orchestrated planning	**Grounded engagement**	**Autonomous venturing**
Flow	Top-down deliberate	Bottom-up emergent	Middle-up-down deliberate/emergent
Basic process	Planning	Learning	Venturing
Favored by	Governments in the public sector (officials)	Communities in the plural sector (associations)	Businesses in the private sector (owners)
Orientation	Political/collective	Social/cultural	Technical/economic
Drivers	Votes, public opinion	Values, local concerns	Profits, investor returns
Activities	Legislation, regulation, incentives	Activism and grassroots organizing	Provision of goods and services

Figure 1: When Organized Efforts Collide

A downward spiral of counterproductive activity results when the three sectors work at cross-purposes.
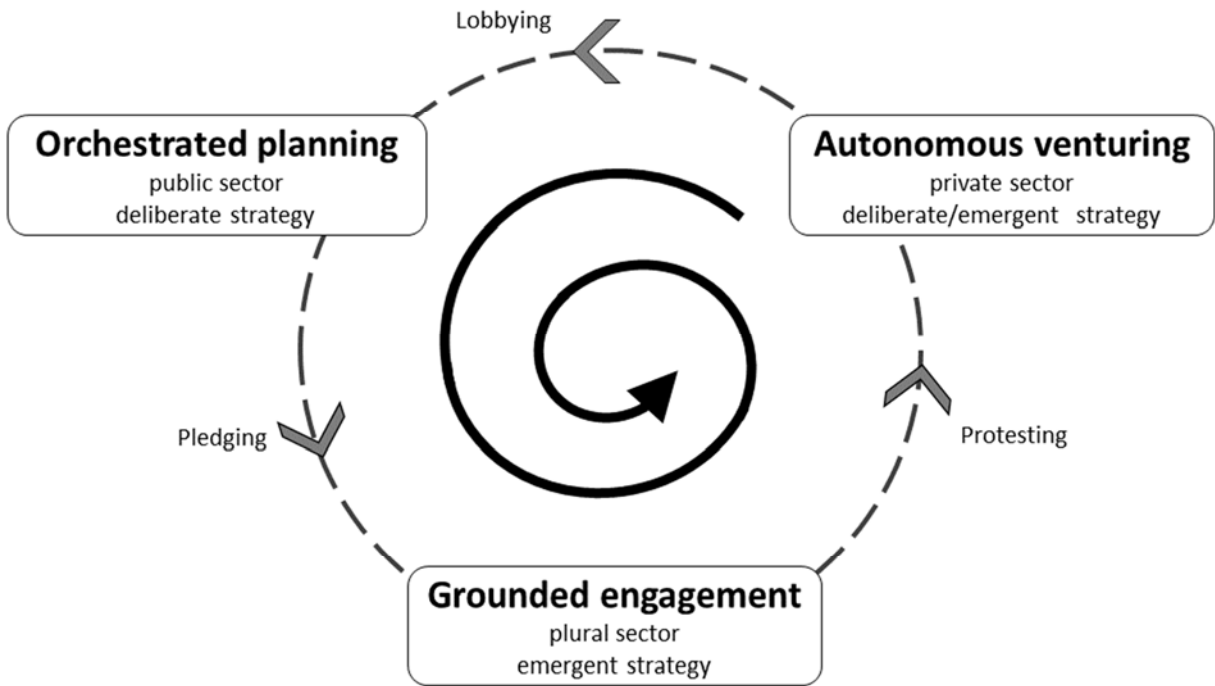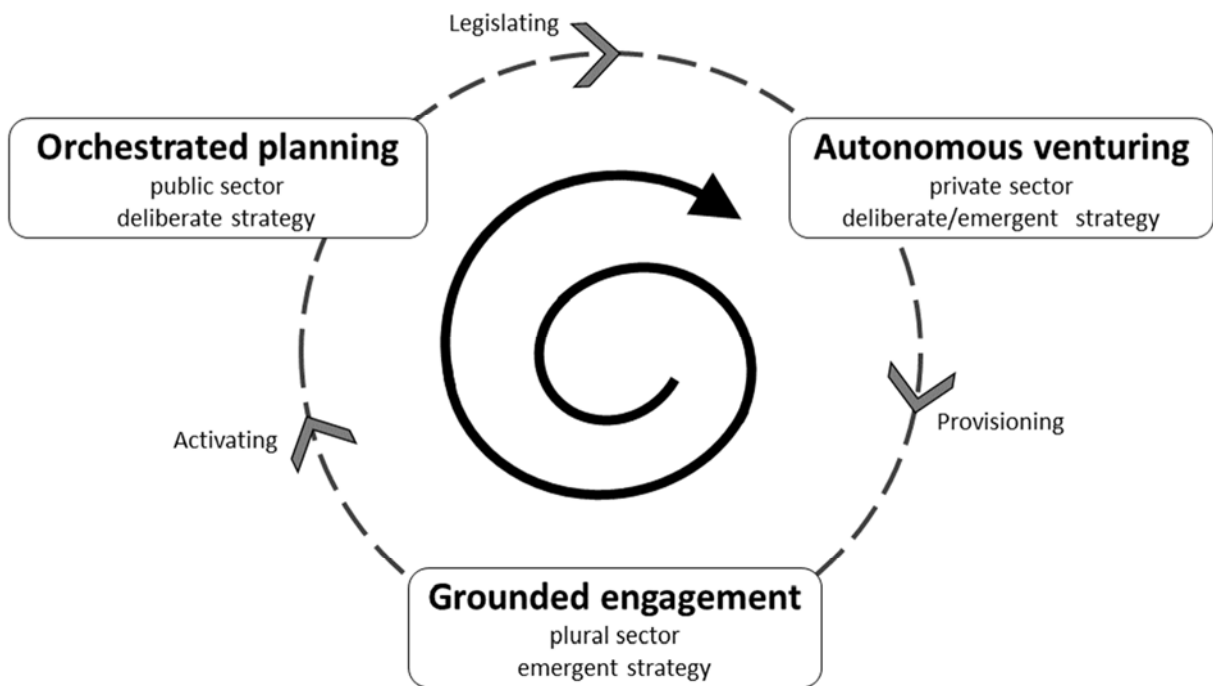
Figure 2: When Organized Efforts Consolidate

An ascending spiral of constructive activity results when the three sectors work together.

NOTES

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