

# Transplanting Urban Innovation

**WHEN WE ORGANIZE MEETINGS IN LATIN AMERICA, WE SOMETIMES HIRE SIMULTANEOUS TRANSLATORS TO ALLOW THOSE OF US WITH LIMITED PROFICIENCY IN SPANISH TO FOLLOW THE CONVERSATION.** These translators are a gifted bunch, capable of processing words, context, meaning, and nuance in nanoseconds. From time to time, they get tripped up in amusing ways. One commonly used word in our meetings is *suelo*. It comes up frequently when we discuss *políticas de suelo*, which translates as "land policies." But *suelo* also translates as "soil," and, as some translators would have it, we've participated in high-level discussions of "urban soil policies." This left me reflecting on whether urbanists might learn something from agronomy.

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Like many of our partners, the Lincoln Institute of Land Policy has ambitious goals. For example, we hope to use innovative land policy to mitigate or adapt to global climate change. We seek to promote financially resilient cities. We plan to help governments at all levels find the revenues needed to invest trillions of dollars annually in infrastructure. Our goals are embedded in the New Urban Agenda (NUA), an agreement signed by United Nations member states at Habitat III, UN Habitat's recent Conference on Housing and Sustainable Urban Development. They also are aligned with the Sustainable Development Goals (SDGs) that replaced the Millennial Development Goals in 2015 to guide global efforts to achieve sustainable development that balances environmental, economic, and social objectives by 2030.

There are an estimated 650,000 jurisdictions on our planet. These range from around 30 megacities with populations over 10 million people; to 4,321 cities with populations exceeding 100,000; to more than a half-million places with fewer than 10,000 inhabitants. Implementing the NUA and achieving the SDGs will require reaching most of these places. How is it possible to change the path of development in so many locations?

Organizations trying to improve social, economic, or environmental outcomes at a global level typically work through theories of change—logic models that outline a process through which specific tactics and activities align to produce a desired outcome. A simplified theory of change might be: 1) find a successful social or policy innovation; 2) study it to understand why it succeeds; 3) export the innovation to new places; 4) measure its success; 5) repeat steps 3 and 4 until no longer necessary.

Most theories of change include ways to scale successful interventions through replication and other means. But there are fundamental problems with this "franchising change" model. First, we are not very good at learning from success or even accounting for it. We can observe *whether* a project or program is successful, but we usually provide only untested hypothetical accounts for *why* it works. Often our hypotheses are wrong, and attempts at replication wither and die. In other cases, it is impossible to replicate key elements of a program. Thus, for example, the celebrated successes of the Harlem Children's Zone have not been repeated elsewhere. We have yet to see the scale or impact of the Champlain Housing Trust copied in other cities that face insurmountable affordable housing shortages. And although there is increasing interest from cities around the world, we have yet to see any that have successfully imported Sao Paulo's practice of institutionalizing land value capture in its stock exchange.

Perhaps we fail to transplant these successes because we can't clone the unique leaders who drove them. Or maybe we can't mobilize the kinds of resources that one can find in New York, Burlington, or Sao Paulo. Or perhaps it is simply much harder to replicate success than we think.

I've spent the last three decades trying to address global challenges like poverty, inequality, and climate change with interventions that could grow sufficiently to meet the scale of these problems. I believed in the promise of innovation—social, scientific, or policy-related. I, like many of my colleagues and contemporaries, believed that my job was to find a magical idea or practice that could spread virally, by replication, or through spontaneous combustion, whatever it took. I thought of myself as an explorer looking for a sturdy potato to bring back from the far reaches of the Andes to feed the teeming masses of Europe.

I've only recently come to understand how badly I misconceived my job. It is fairly easy to scour the globe for innovations and only a tad more difficult to construct a hypothetical account for their success. But it is really hard to transplant a novel policy, tool, or practice, and it can be costly to relocate creative new measures and watch them wither on foreign soil.

If we paid more attention to preparing the ground to receive new tools, practices, or policies, we might have more luck at replicating success. This is where we can take a page from the agronomist's playbook.

Looking back, it is not surprising that we were unable to scale social or policy innovations through replication. Each new approach unfolds in a complex social, political, and legal ecosystem. We reduce this complexity by guessing at the salient elements of each complicated context to account for success. It is difficult, if not impossible, to do controlled tests to confirm our hunches. So instead we use trial and error, uprooting successful projects, programs, or policies and planting them elsewhere, hoping that they will take root. And they rarely do. When replications fail, it is easy to attribute failure to a deficiency in the destination. But if we paid more attention to preparing the ground to receive new tools, practices, or policies, we might have more luck at replicating success.

This is where we can take a page from the agronomist's playbook. Soil, too, is a complex ecosystem. It is composed of minerals, organic matter, and trace elements that offer plants sustenance. But the process through which different plants extract nutrients from the soil is a very complicated process.

It starts with the roots. In natural settings, the stems, leaves, and flowers of plants and their roots evolve to adjust to the complexity of the soil and the variability of climate. With the invention of agriculture, we interrupted this evolutionary process in order to cultivate non-native species in new environments. Through trial, error, and scientific inquiry, agronomists learned a lot about how to cultivate plants that are native to one place in new terrains. Thus, the potato, imported from the New World, became a

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staple in the Old World in the 18th century. But failure to account fully for the complexity of soil and environment generated some terrible unintended consequences, such as widespread blights that led to mass starvation in Ireland and Finland.

Uprooting a vegetable and planting it elsewhere is a crude way to replicate success. Growers of certain crops have more sophisticated ways to overcome the joint challenges of soil and climate complexity. They do this by treating a plant as two systems—the root system that delivers sustenance from the soil and the fruit system, or scion, that produces the desired output. Vintners find successful local varieties of a plant and combine their root stock with the fruit stock of a different desired variety of the plant. Skilled practitioners help them to weave these two systems together. This job was celebrated by John Steinbeck in *The Grapes of Wrath*:

> *The men who graft the young trees, the little vines, are the cleverest of all, for theirs is a surgeon's job, as tender and delicate; and these men must have surgeons' hands and surgeons' hearts to slit the bark, to place the grafts, to bind the wounds and cover them from the air. These are great men.*

For example, a winery in Sonoma, California, that wants to produce wine using a Sangiovese varietal might import the fruit stock from Tuscany and graft it to the root stock of a Zinfandel vine that thrives in the local soil. The California vintners do not need to be soil scientists to replicate a successful Tuscan grape, but they do need to identify the vines that have successfully adapted to the complexities of the local soil and use their root systems to sustain and promote the growth of their chosen varietal. And they need skilled practitioners to graft the two parts of the plant together.

As we think more expansively about the practice of introducing new policies, tools, and approaches to the thousands of places that want help finding answers in land, we are learning a lot. We are learning about ways to prepare the ground to adopt new practices—understanding the "rules of the game" that define the local policy space, for example, and proposing revised rules to enable new policies. Or studying the local institutional ecosystem to identify all of the important stakeholders and inviting them to the table to help initiate new practices. We are learning that successful local people or organizations are the "root stock" that will sustain imported innovations and allow them to thrive. And we are learning that grafting an imported innovation onto this local root stock is a delicate task.

Many organizations focus on identifying and rewarding urban innovation—the magical interventions that help us overcome problems that result from our insistent efforts to urbanize the planet. At the Lincoln Institute, we are paying more attention to the *process* of replicating success. We will continue to document and share what we learn from transplanting innovation. Whether cities use land value capture to pay for infrastructure, create permanently affordable housing through community land trusts, or improve public schools with more resilient public finance systems buttressed by the property tax, each intervention will need to take root in local soil to succeed. We hope to be there to monitor and report on this success.