



RP3

RESILIENT PEOPLE, PLACES,
PROJECTS WORKING GROUP

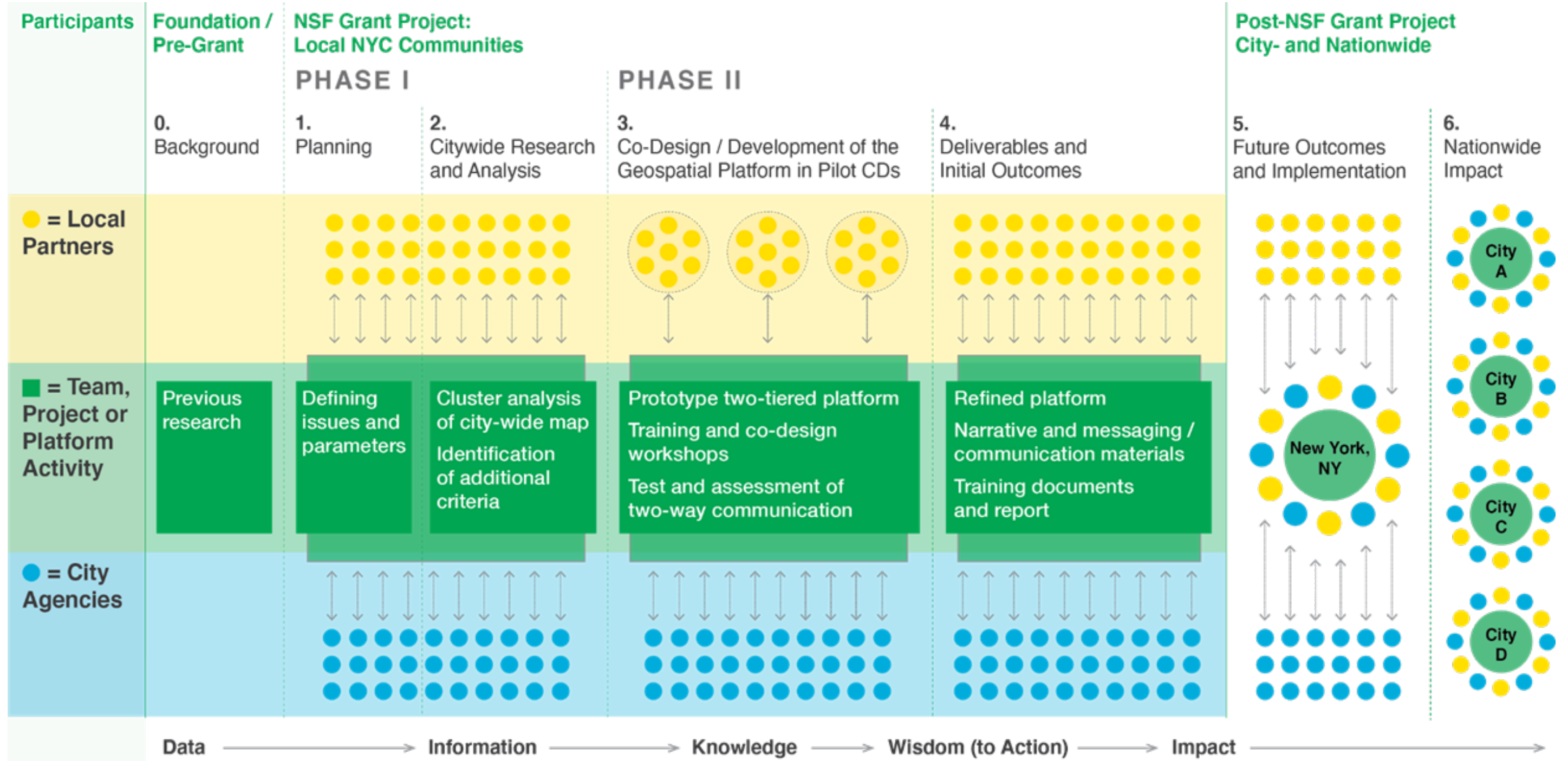


Creating an Inclusive Platform for Infrastructure Equity and Resilience (PIER)

The location and aging infrastructure in NYC, as a delta city, makes it particularly vulnerable to extreme weather events and the impacts of climate change.

NYC's official capital planning and budget processes lack effective interagency collaboration for maximizing the resiliency impacts of clusters of infrastructure investments within neighborhoods, and effective and timely transmission of local infrastructure knowledge during the capital planning process.

The purpose of the proposed project is to explore and address these structural issues in the official capital project planning and budget decision-making process in NYC. We will design and develop a geospatially-based multi-stakeholder platform and related communication materials for improving interagency cooperation and effective transmission of local knowledge that would facilitate equitable and resilient infrastructure investments.



<p>Participants</p>	<p>Foundation / Pre-Grant</p> <p>0. Background</p>
<p>● = Local Partners</p>	
<p>■ = Team, Project or Platform Activity</p>	<p>Previous research</p>
<p>● = City Agencies</p>	

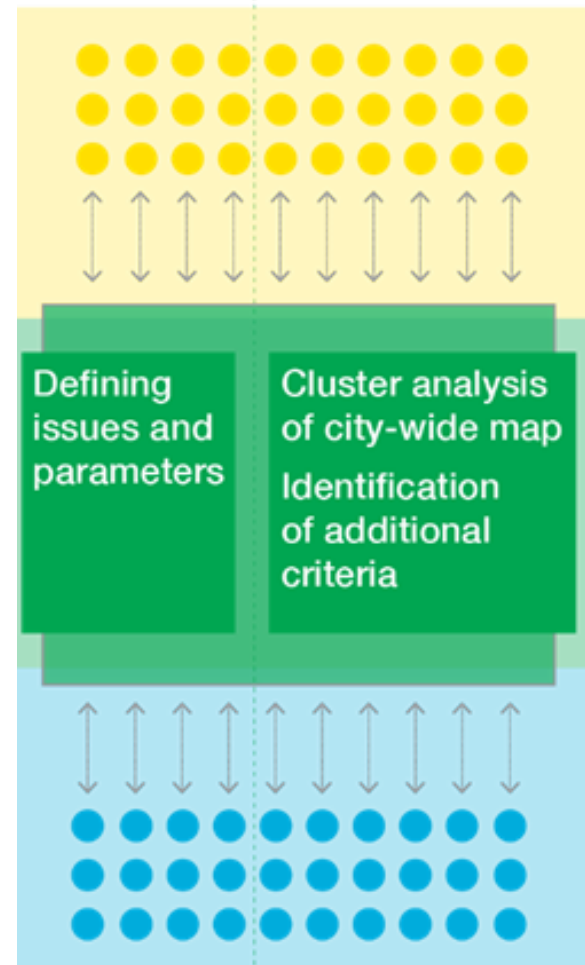
The proposed study is based on the preliminary findings of a collaborative inquiry conducted by the Town + Gown’s RP3 Working Group, including Pratt faculty members, the RAMP initiative, AREA Research, city agency representatives since 2018 on ways to increase infrastructure and community resilience by improving the influence of NYC’s community boards (CBs), the most local level of government, with Charter-defined roles in the citywide capital planning process.

**NSF Grant Project:
Local NYC Communities**

PHASE I

1.
Planning

2.
Citywide Research
and Analysis



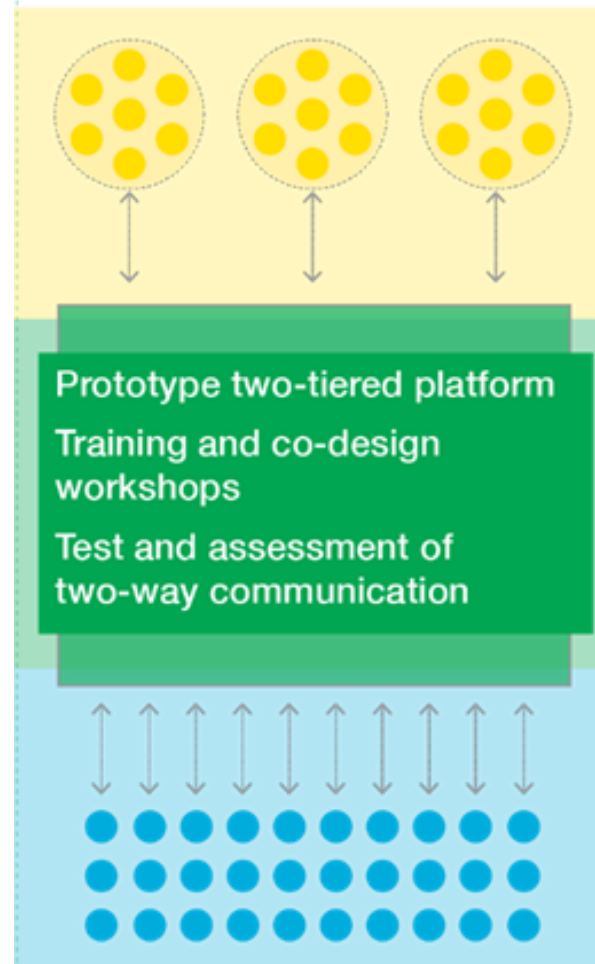
Phase I of the proposed study will involve citywide research and analysis.

The project team, together with selected city agency and community stakeholders will focus on exploring impediments to inter-agency collaboration and effective transmission of local infrastructure and resilience deficiency knowledge during the capital planning process.

We will conduct a citywide cluster analysis of planned capital projects and identify additional criteria for selecting the pilot community districts (CDs - the geographic areas represented by CBs).

PHASE II

3.
Co-Design / Development of the
Geospatial Platform in Pilot CDs



Phase II will involve hyperlocal analysis of these issues in the two or three pilot CDs and a cost benefit analysis of clustered and un-clustered projects will be conducted.

The team will work with CBOs and city agencies to co-design and develop a prototype platform and protocol for effective interagency collaboration and a reciprocal two-way communication between city agencies and the community during capital planning processes.

The intellectual merit of this study is its inclusive approach to integrating professional, scientific, and local community knowledge and co-designing a frictionless data system for increasing infrastructure and community disaster resilience through capital investments.

Unlike existing statistical or geospatial data platforms, the proposed platform will

- 1) enable and support researchers, practitioners and ‘citizen scientists’ in constituent communities to work as equals in knowledge creation and designing an accessible platform to address longstanding gaps in NYC’s resilience and capital planning process;
- 2) focus on critical but often-overlooked aspects of place-based resilience planning and research (i.e., coordination of public infrastructure investment decisions, and timely and effective two-way communication of infrastructural knowledge between communities and city agencies);
- 3) enable agreed upon community priorities, rather than individual



crowdsourcing, to advise capital planning;
 4) enable development of integrated solutions at the pre-design, i.e., the capital planning phase, before project scopes and schedules are locked down in the budget. Pedagogical benefits include promoting innovative interdisciplinary curricula in tandem with communities on building social and physical resilience.

Broad impact: The hyper-local example of pilot community districts as well as NYC as the test-bed-city can serve as a model for other local governments to change their local processes and as a prototype for similar platform to increase infrastructural and community resilience to impacts of climate change during capital planning.

Moreover, due to the makeup of the project team's diverse stakeholder expertise, the results of this research project will be usable and actionable by practitioners within NYC's local government.

In addition to potentially improving the capacity of CBs to perform their locality coordination function, the participatory processes leading to the creation of the platform in the pilot CDs would strengthen the social ties of the community and informed participation of diverse community groups that are essential for community resilience.

**Post-NSF Grant Project
City- and Nationwide**

5. Future Outcomes and Implementation



6. Nationwide Impact

