

# FROM SUSTAINABILITY TO...RESILIENCY?

Resilience is the capacity of individuals, communities, institutions, businesses, and systems within a city to survive, adapt, and grow no matter what kinds of chronic stresses and acute shocks they experience. Resilient systems withstand, respond to, and adapt more readily to shocks and stresses to bounce back stronger after tough times, and live better in good times. According to the Urban Land Institute "Resilience" is defined as the ability of cities to continue to function as centers of production, human habitation, and cultural development despite the challenges posed by climate change, population growth, declining resource supply, and other paradigm shifts.



100 Resilient Cities—pioneered by the Rockefeller Foundation (100RC) is dedicated to helping cities around the world become more resilient to the physical, social and economic challenges that are a growing part of the 21st century. 100RC supports the adoption and incorporation of a view of resilience that includes not just the shocks—earthquakes, fires, floods, terrorist attacks, etc.—but also the stresses that weaken the fabric of a city on a day to day or cyclical basis, such as high unemployment, overtaxed or inefficient public transportation systems, endemic violence, and

chronic food and water shortages. By addressing both the shocks and the stresses, a city becomes more able to respond to adverse events, and is overall better able to deliver basic functions in both good times and bad, to all populations. According to the Rockefeller Foundation's president, Judith Rodin, the intention is to circumvent the problem of conflicting civic and cultural philosophies by focusing on solving specific problems, using flooding as an example She says: "Your city's vulnerability to water may require an 8ft-tall dike, while another city requires natural infrastructure like archipelagoes and oyster beds. Those are very different practices, but they represent the same resilience principle, which is that you've got to figure out how to deal with water in a way that really works."

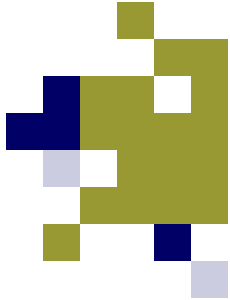
Ultimately, Rodin hopes, the program will form the basis of a set of systematic resilience principles that can be generalized across geographic and cultural boundaries. Eventually, she hopes the project will help all cities learn to view their specific problems "through a resilience lens". More broadly, however, the resilience movement is a global attempt to address two of the longest-standing and most vital questions facing citizens, planners and leaders. Namely: what is the purpose of society, and what is a society's responsibility to its citizens?

*"Resilient systems are everyday systems that can be scaled up. Managing in an emergency is like managing normally, except more so. In other words, as cities work to build resilience, they should develop procedures that enable them to carry out their daily mission, whatever that mission may be."*

-Thomas Frieden, Director of the Centers for Disease Control



# PITTSBURGH'S RESILIENCE FRAMEWORK



Pittsburgh was one of the cities selected to participate in the Rockefeller Foundation's 100 Resilient Cities Centennial Challenge. "For us, this is like winning the Super Bowl," Mayor Peduto said. In developing their resilience framework, the City has identified several chronic stresses and acute shocks that challenge and threaten the City, including: **air quality, inequality, public health challenges, flash floods, infrastructure failure and extreme weather.**



Leading this charge is Grant Ervin— the City's former Sustainability Manager— who has become the City's first Chief Resilience Officer. The goal, he said, is to "not only bounce back, but bounce forward" from such challenges. At a City Resilience Roundtable Event, Andrew Butcher, the CEO and co-founder of GTECH Strategies, said climate change was a core concern. "Resilience may mean new infrastructure to handle increased rainfall, he said, but also enhanced social networks to, say, ensure neighbors' safety during heat waves."

"Cities tend to operate in silos," says Judith Rodin, Rockefeller's president. "And resilience is very much about building a systems approach — both within city government, but also between city government and other elements of the fabric of the community."

*"These kinds of investments build what we call a resilience dividend, So that it isn't only an investment that helps you withstand the bad stuff when it happens—the big earthquake, or tsunami, or wildfire—but as you're building resilience you're building both more economic opportunity and therefore more jobs and new kinds of jobs. People benefit in the good times, and then they're stronger and can rebound more quickly in the bad times."*

- Judith Rodin, Rockefeller Foundation

*"A resilient city is prepared to absorb and recover from any shock or stress while maintaining its essential functions, structures, and identity, adapting and thriving in the face of continual change."*

- Local Governments For Sustainability

- U.S. Cities Selected for the 100 Resilient Cities Project:**
- Berkeley
  - Boston
  - Boulder
  - Chicago
  - Dallas
  - El Paso
  - Jacksonville
  - Los Angeles
  - New Orleans
  - New York City
  - Norfolk
  - Oakland
  - Pittsburgh
  - San Francisco
  - St. Louis
  - Tulsa

Sources: Rockefeller Foundation, ARUP, Urban Land Institute, City of St. Louis, 100ResilientCities.org, FastCoExist.com, City of Pittsburgh, TheGuardian.com, PlanningReport.com, ICLEI