

Rotterdam Resilience in Times of Corona

Summary of Policy briefs



**Vital Cities
and Citizens**

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Summary of policy briefs

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Rotterdammers (and citizens worldwide) are under pressure. Almost 40% of Rotterdammers feel threatened, a quarter of the zzp'ers (self-employed persons) and flex workers report loss of income and almost half of this group is afraid to lose their job (Engbersen et al., 2020). The credit crisis shows how long recovery can take: 10 years on, unemployment was still higher than before the crisis. On the other hand, there are bright spots: since the Covid-19 outbreak there is a lot of solidarity in the neighborhoods and many neighborhood initiatives are taken to help people. Rotterdammers are showing resilience and trying to come out of the crisis stronger.

The City of Rotterdam asked us, Erasmus Initiative Vital Cities and Citizens (VCC), to provide academic insights and advice on how to deal resiliently with the COVID-19 crisis, so that Rotterdam can ultimately emerge stronger from it. To this end, VCC conducted literature reviews, provided reflections on proposed policy approaches by the City of Rotterdam, and wrote thought-provoking policy briefs with action perspectives. In this summary of policy briefs, we briefly discuss the policy letters and address the main findings and recommendations based on five research questions.

#1 What conditions determine how Rotterdam can emerge from the COVID-19 pandemic faster and ultimately stronger?

There are three forms of urban resilience: resist, recover and transform. Each form leads to a specific sub-question (Table 1). In our literature review, we identify many favorable conditions for each sub-question, which can help the city to come out of the COVID-19 crisis and deal with it in a proper way.

Table 1: Forms of Urban Resilience

Forms of Resilience	Time Period	Subquestions
1. Resist	Before the crisis	How can Rotterdam become less vulnerable to COVID-19?
2. Recover	During the crisis	How can Rotterdam climb out of the valley faster?
3. Transform	After the crisis	How can Rotterdam embrace new opportunities and structures?

Source: Elmqvist et al., 2019; Martin en Sunley, 2014.

The different conditions are closely related and form a complex whole (Folke, 2006). It is not possible to optimize all conditions within the limited resources of a city. It is therefore of great importance to set priorities at city, district and sector level, and to establish the systemic relationship between activities and different actors (public, private, social) at different levels (street, neighborhood/district, city, region, etc.) to search.

Recommendations

The literature lists a wide range of ways a city can prepare for a (repeated) epidemic. Listed are some highlights.

Resist: How can Rotterdam become less vulnerable to COVID-19?

- Mapping of vulnerable groups and sectors
- Build reserves (government, businesses, households; crisis teams with resources available; medical overcapacity)
- Increase independence (e.g. multiple suppliers of medicines, local supply chains)
- Increase diversity in economy and society to reduce vulnerability and make faster adjustments

Recover: How can Rotterdam climb out of the valley faster?

- Flexible labor markets and flexibility in organizations and networks
- Quadruple collaboration (public, academic, private and community)
- Flexible planning and enforcement
- Continuously identify needs and create social and economic safety nets

Transform: How can Rotterdam embrace new opportunities and structures?

- Steer, monitor, evaluate and adjust long-term policies
- Good and diversely educated people in the city make a city more innovative
- Identify, monitor and evaluate innovations, for example, by *living labs*
- The smart city in which more digital facilities are available (e-education, e-working, e-government, e-social)
- Environmental transition is broadened to transition management for other domains, such as the economy and the socio-cultural sector.

#2 What is resilience and how can we make it manageable for the COVID-19 crisis?

Resilience is a complex concept of which much is written and discussed. It can be described as the ability of organizations and initiatives to positively and adaptively deal with and/or anticipate setbacks.

It also turns out to be quite difficult to make resilience manageable and concrete, both for research and for practice. With our study we have arrived at the following tools in which we have made a distinction between the context of resilience, the way in which resilience can be put into practice and transformation; in other words, how you can come out of the crisis stronger.

Context

Variables	Indicators
Crisis	<ul style="list-style-type: none">• Type of shock• Depth of shock (medical, economic, social, governmental)• Duration of the shock• Sectors affected• Effect on the world economy
City	<ul style="list-style-type: none">• Population• GDP• Number of staff and budget city government• Good governance
Board and Activities	<ul style="list-style-type: none">• Innovative forms of work used• Crisis protocol in place• Project/program approach• Joint activities/multi-actor collaboration
Details	<ul style="list-style-type: none">• Availability of data and contacts

The way resilience is put into practice

Variables	Sub-variables	Indicators
Forms of Work	Quickly out of the valley/During crisis	<ul style="list-style-type: none"> • Crisis management: Involvement of public, private and civil society actors and different administrative layers and sectors • Roles and tasks: leadership • Horizontal and vertical partnerships • Monitoring and evaluation • Data management • What worked and what did not? • Key activities • Resources (financial, human) • Critical services during the crisis
	Stronger/Innovate	<ul style="list-style-type: none"> • Indicators above but in relation to innovation/transforming after the crisis
Activities	Quickly out of the valley/During the crisis	<ul style="list-style-type: none"> • Main activities and their sequence • Was the crisis predicted? • Support to the vulnerable groups • Medical facilities • Economic support • Social safety nets set up
	Innovation	<ul style="list-style-type: none"> • Present quality to innovate in governance and city • Who innovates? • Experiments/Pilots • Supporting and initiating activities • Help with scaling up and normalizing the approach, securing learning

Emerging stronger from the crisis: Transformation

Variables	Sub-variables	Indicators
Preparation for the next crisis	Better ability to predict	<ul style="list-style-type: none"> • New forecasting system • Risks mapped out
	Reserves built up	<ul style="list-style-type: none"> • Financial, manpower, organizational, medical reserves built up

	Forms of work established	<ul style="list-style-type: none"> • Crisis team reinforced • Roadmaps ready, capacity, data collected and networks in place across multiple levels • Administrative flexibility and learning capacity increased • New partnerships within and outside government structures • New data management systems • New monitoring systems • New social safety net
	Economy and society more resilient	<ul style="list-style-type: none"> • Diversity economy changed • Self-directed initiatives changed • Local trade chains changed • Modularity changed • Labor market flexibility • Medical world prepared
Innovation	Forms of work	<ul style="list-style-type: none"> • Innovations and creativity within government, networks and other organizations • Scale of innovations
	Social & Economic	<ul style="list-style-type: none"> • Social and frugal innovations in city • Economic innovations/changes • Medical innovations • Scale of innovations
	Transitions	<ul style="list-style-type: none"> • Systematic changes in way of working and living/routines

#3 What are the conditions for a resilient society?

Rotterdam has a long and rich experience with urban resilience because of its post-World War II reconstruction and the 1953 Flood Disaster. However, current challenges and crises such as climate change and pandemics such as COVID-19 are different. It requires resilience of residents in the city in addition to government action. Esteban (2020) shows in her doctoral research at Erasmus University Rotterdam that a slow shift in approach can be observed in Rotterdam from a top-down infrastructural approach to a bottom-up approach focused on social resilience and resilience. This approach to a resilient society requires three levels:

1. Initiatives from resident groups and businesses (*bonding*),
2. Collaboration between resident groups and businesses (*bridging*) and
3. Collaboration between local governments and resident groups and businesses (*linking*)

There are large differences in resilience between and within urban societies. This is due to the resilience of people, the community and environmental factors. Within Rotterdam, three forms of resilience can be distinguished in their levels of innovation and self-reliance. It should be clear that these levels partially overlap, but also require different administrative approaches.

Recommendations

- **High/innovation level:** Districts/groups that demonstrate innovative and dynamic resilience and social initiatives.
Approach: In doing so, it is good to support, scale up or replicate these initiatives where possible. Such initiatives can lead to (administrative) innovation.
- **Middle level:** Groups with lower and varying resilience.
Approach: Support existing initiatives, bonding, bridging and linking within the community to generate greater social resilience. Strengthen collaboration with and support for social resilience through organizational strength.
- **Most vulnerable:** Groups with low resilience often have a combination of vulnerabilities (old age, illness, disability, poverty, etc.).
Approach:
 - These groups require additional support during a crisis. The most vulnerable do not always know their way around the bureaucratic jungle; a '*one-stop shop*'/ buddy and cooperation between different support services is essential.
 - The combination of vulnerabilities often goes hand in hand with low self-esteem, making it very important to also recognize and address psychological problems.
 - Organization *also* at the district and street level.

More and more is happening digitally these days, so inspiration can be drawn from the role of digital platforms. Many of these platforms already exist and they try to make the many existing initiatives transparent. Nevertheless, most initiatives are stand-alone initiatives of residents or local businesses, or are initiated by the local government. The link between local government and local initiatives appears to be difficult and despite the presence of good examples it is important that the municipality gives space and support to neighborhood initiatives.

#4 How can local government make societies more resilient?

COVID-19 requires a paradigm shift in the way Rotterdam is governed. Being resilient through infrastructure, such as building dikes against flooding, does not work for the COVID-19 pandemic because (1) it is unable to deal with social problems such as loneliness; (2) it does not leave room for enough flexibility to deal with uncertainty; and (3) because it does not free up innovation and creativity. Due to climate change, a paradigm shift from infrastructural to more integrated solutions is already underway in Rotterdam. We outline an adaptive, bottom-up and resilient alternative. We argue what is better to do and what is better not to do.

Adaptive governance enables local governments to deal with uncertainty (Adger et al., 2009). This means involving multiple actors in decision-making processes and embracing self-organization within communities and entrepreneurs, allowing for continuous learning and flexibility (Lebel et al., 2006). A good example are Community-Resilience Initiatives (CRIs), where local actors largely respond and act on their own. During the COVID-19 pandemic, many CRIs emerged, but it is a challenge for these CRIs to succeed and sustain themselves.

Recommendations

Community-Resilience Initiatives (CRI's) require:

- Strong ties among core group members
- Transformative (motivating and intellectually stimulating) leadership
- Organizational capacity
- Recognition within the community (Ulug & Horlings, 2018; Igalla et al., 2019)

Role of local governments in supporting CRIs:

- Recognize and legitimize CRIs as an additional executive force in the city
- Appreciate the specific nature of CRIs and their capacity to perform
- Identify services and support functions for CRIs
- Assist in acquiring resources, such as funding, knowledge, networks, land or space
- *One-stop-shop*: local government should internally coordinate and align work processes, political legitimacy and resources
- Network: inform, coordinate and tune in with other community initiatives, professionals and/or government
- Reliable: the system must be stable enough for proactive citizens to rely on when applying for support, identification, etc.

In addition to the above recommendations, there are some things that a local government is better off not doing, such as:

- Being a Steering Committee: Local governments are not well equipped to act as one of the steering bodies of urban polycentric governance. This is especially true when dealing with initiatives of (non-professional) urban, self-organizing entities, such as collectives of proactive citizens (Voorberg et al., 2015).

- Being overactive: Negative effects occur when governments become overactive and "demand their own programs or services instead of working with cooperatives" (Gonzales, 2010).
- Taking over leadership: Avoid the tendency to "take over the initiative and mold it into bureaucratic rationales" (Brandsen, 2016).
- Increase bureaucratic red tape: local government support in the form of funding can negatively affect outcomes if it misaligns the timing of outputs, adds red tape, and leads to local competition and participation fatigue (Creamer, 2015).
- Political interference: This way of acting by local governments should not be a matter of political preferences changing every four years when a new government or administration takes office.

#5 How do we make (vulnerable) people more resilient?

The COVID-19 pandemic is causing emotional, physical and financial stress and is impacting just about every aspect of our lives. Parents/caregivers are struggling to combine educational support, (home) work and housework. Children have to learn to cope with staying at home, education from their parents/caregivers, while missing out on contacts with peers. For singles, the elderly and those living alone, the pandemic may degenerate into increasing feelings of loneliness and alienation.

The ability "to bounce back" rests on two foundations: *coping* and *resilience*. Coping refers to the ability to cope with problems and adversity through cognitive or behavioral actions. Resilience is the ability of a system to deal with threats to its functioning, survival, or continued development.

The table below summarizes the steps to a prosperous recovery for Rotterdammers and shows which constructs are important to make individuals and society more resilient.

Table 1. Three levels in the disaster life cycle

Level	When	Focus
Preparation	Before the disaster	Identify and create the important social building blocks for coping with adversity and setbacks.
Recovery	During the disaster	Connecting social forces to activate the social building blocks.
Transformation	After the disaster	Institutionalize the social building blocks in a new social structure.

Source: Elmqvist et al., 2019; Peek, L. (2020).

Preparation

Better preparation requires that youth feel in control and connected, where they can adjust their emotional response, deal effectively with trauma, and have the skills to do so. Research shows that the perception of social support is at least as important as the actual activities of support.

Recovery

Recovery requires capacity building in five areas: prioritize integrated youth care, strengthen collaboration among involved organizations that puts youth and their families at the center, provide training and technical assistance to youth, families and professionals, integrate youth care into urban planning and policy and improve advocacy (Association of Maternal & Child Health Programs, 2004).

Transformation

There is a need for a continuous policy focus on youth resilience. It is often wrongly assumed that parents can do this adequately. The needs of children after a crisis are different from those of other groups and therefore need their own approach.

After a traumatic event, it is important to offer external support (Anshel & Gregory, 1990; Prince-Embury & Saklofske, 2013), support youth's self-confidence and emotional awareness, and strengthen interpersonal and problem-solving skills (Chesney, Folkman & Chambers, 2003; Anshel & Gregory, 1990).

To conclude: Action research in Rotterdam

VCC is involved in two action research projects at elementary school in Rotterdam, where children are made more resilient and resistant. Both projects are together with the EUR Science Hub and one is in collaboration with the Giovanni van Bronckhorst foundation.

Urban Resilience

Resists

- Mapping of vulnerable groups and sectors
 - Build reserves
 - Increase independence
- Increase diversity in economy and society
- Local capacity, social investments and resources; Community-based initiatives
 - Identifying crucial societal building

#1: What conditions determine how Rotterdam can emerge from the COVID-19 pandemic faster and ultimately stronger?

#2: What is resilience and how can we make it manageable for the COVID-19 crisis?

#3: What are the conditions for a resilient society?

#4: How can local government make societies more resilient?

#5: How do we make (vulnerable) people more resilient?

Transform

- Steer, monitor, evaluate and adjust long-term policies
- Good and diversely educated people in the city
 - Identify, monitor and evaluate innovations/living labs
- The smart city (e-education, e-working e-government, e-social)
- Environmental transition - transition management
 - Initiatives resident groups and companies (bonding), collaboration BG and BD (bridging) and collaboration local governments and BG/BD

Recover

- Flexible labor markets and flexibility in organizations and networks
- Quadruple collaboration (public, academy, private and community)
- Flexible planning and enforcement
 - Continuously identify needs
- Create social and economic safety nets

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This report is a publication of the Erasmus Initiative Vital Cities and Citizens (VCC). Through VCC, Erasmus University wants to contribute to the quality of life in urban areas. In vital cities, residents can achieve their life goals through education, meaningful work, and participation in public life. The vital city is a platform for creativity and diversity, a safe meeting place for different social groups. The researchers involved focus on one of the following sub-themes:

- Inclusive Cities and Diversity
- Resilient Cities and People
- Smart Cities and Communities
- Sustainable and Just Cities

VCC is an interfaculty cooperation with the objectives of interdisciplinary cooperation and generating positive social impact.

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Gemeente Rotterdam



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