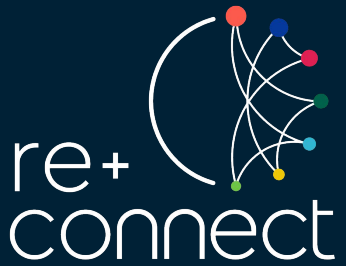

Closing the Last-Mile Disaster Relief Gap

February, 2022

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re+ connect

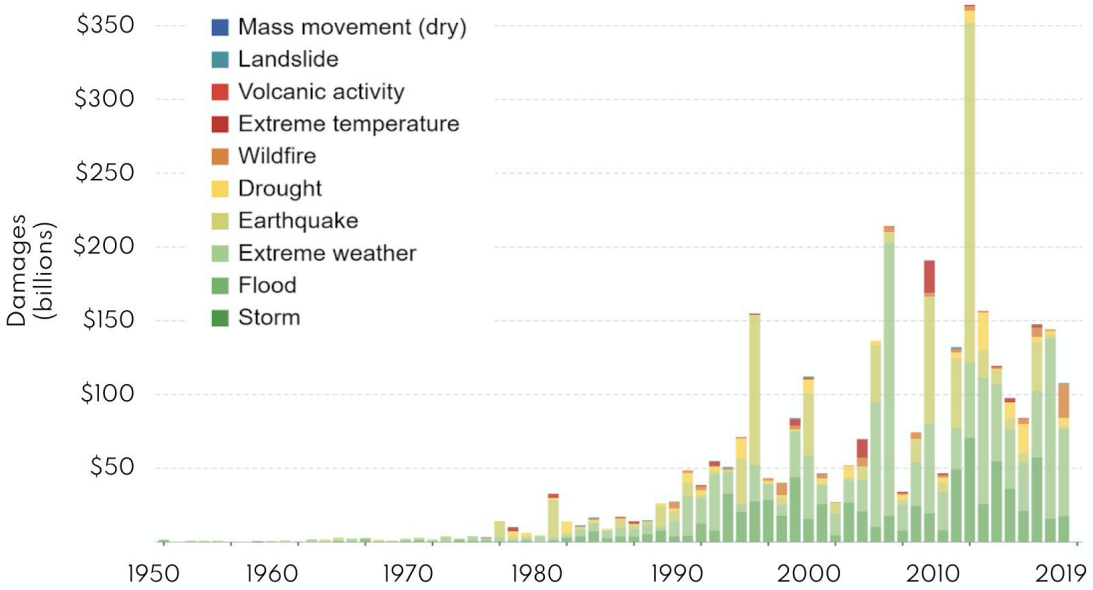
We are a social venture building a civic technology platform to **close the last-mile disaster relief gap** and **build long-term resilience** for underserved communities.

Our **mobile and web applications** and **data-driven intelligence** connect **residents**, **community groups**, and **disaster management & aid organizations** through **collaborative processes** to **direct the right responses to the right places at the right time**.

With a long-term vision for global impact, we tailor our solution to areas that suffer the greatest losses to disasters, starting in **Puerto Rico**, where we aim to reach **1 million residents** in the next **5 years.**

01 The Missing Links

Disasters are growing in frequency and severity around the world.



In recent decades, as climate change continues to worsen and our interaction with nature becomes increasingly complex, **disasters are growing in frequency and severity.** This reality exposes disaster management **agencies' limitations** in meeting the growing access and service **needs**, especially for the **most vulnerable populations.**

Source: The International dIsaster Database

Puerto Rico is one of the many places that confront one shock after another.

2017

Hurricane Maria

2019

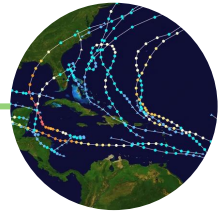
Political Protests & Crises

2020

Series of Earthquakes

2020

Global Pandemic



2021

Annual Hurricane Season

Puerto Rico, home to **over 3 million,** has been under one shock after another. In September 2017, Hurricane Maria caused **devastating and long-term damages** to people's health and safety.

Source: Reuters, NYTimes, Independent; Kishore et al. 2018; Hinojosa and Meléndez 2018; Varney and Kane 2018

When disasters strike, people face challenges to direct the right response to the right places at the right time.

Julia, 73,
Utuado

Mario 38,
Utuado

Mariana, 48,
Jayuya

Carlos, 42
San Juan

Links are missing for delivering the right response to the right places at the right time.

At-Risk Populations

Information

Disaster information, especially at the **community level**, is often **missing, illegible, or dismissed** due to resource limitation and social and political barriers such as trust and institutional setups.

Coordination

Under time pressure and uncertainty in the face of disasters, coordination across stakeholders around **information sharing, logistics, and operation** can become a major **roadblock**.

Accountability

To **effectively deploy** relief resources and services and **maximize their impact** is a **complex accountability** challenge across all stakeholders.

Disaster Management Agencies

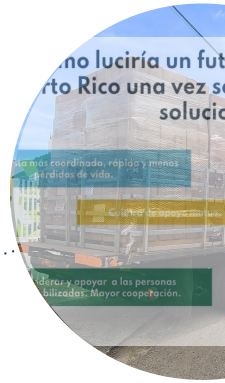
“An enormous duplication of efforts, wasting money and resources…”

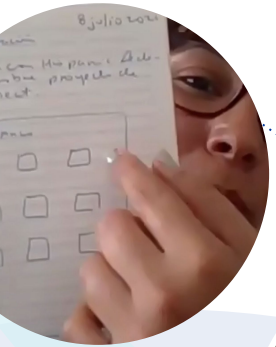
“Delay in delivery due to holding supplies subject to protagonism or bureaucracy.”

Duplication & negligence

Mismatch with community needs

Question of sustainability

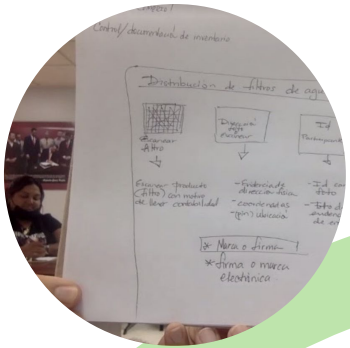




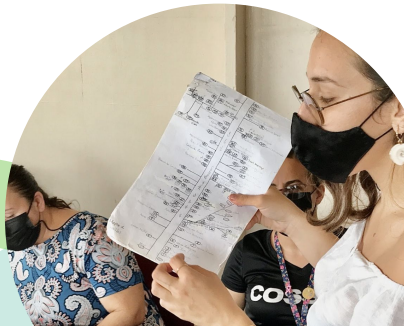
“I would distrust the organization if they did not release the resources even if they had them or if they released them without asking”

“other communities lost their help due to the lack of coordination and communication between organizations…”

“Finding volunteers and resources to get somewhere and finding which communities have already been helped is difficult…”

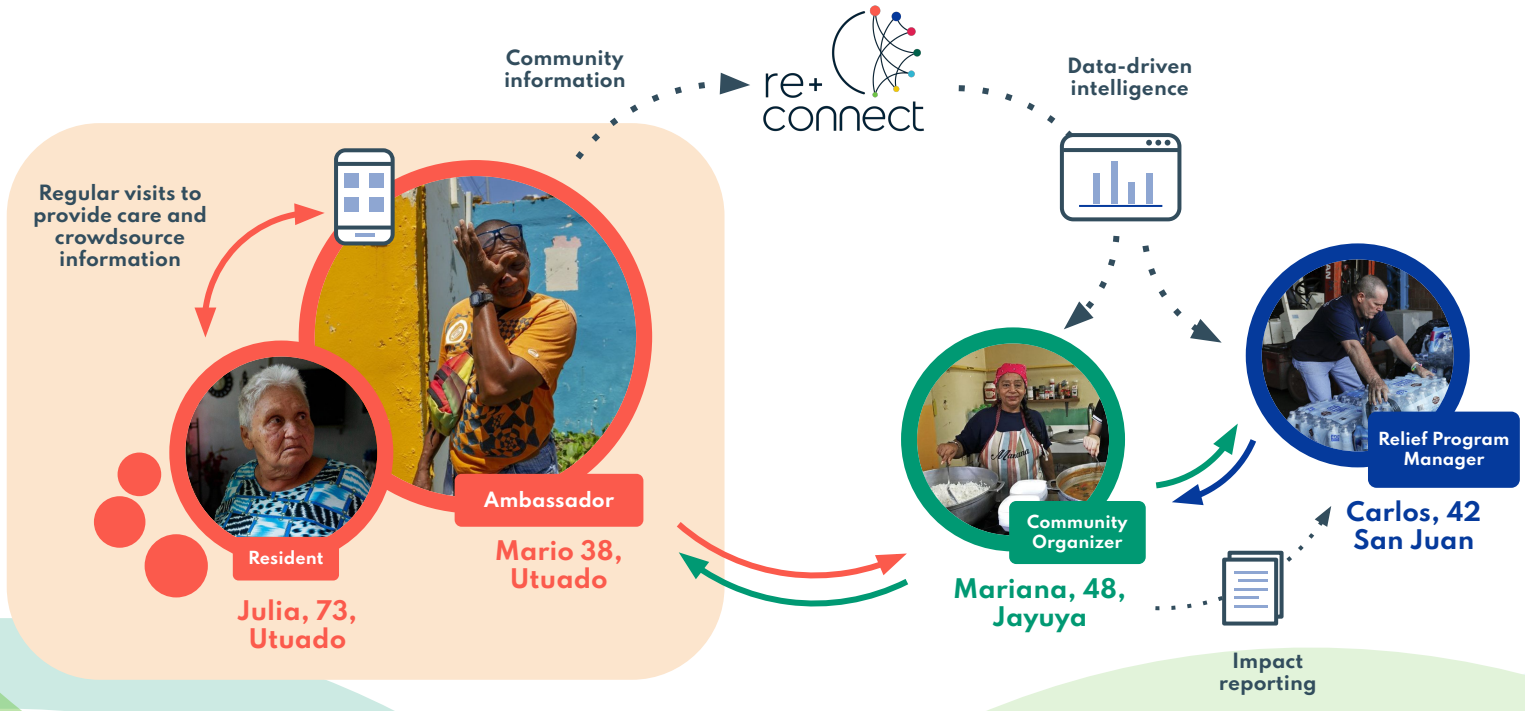


“…although we have the resources, we are not included in major coordination, and we do not know how to channel them to those communities.”

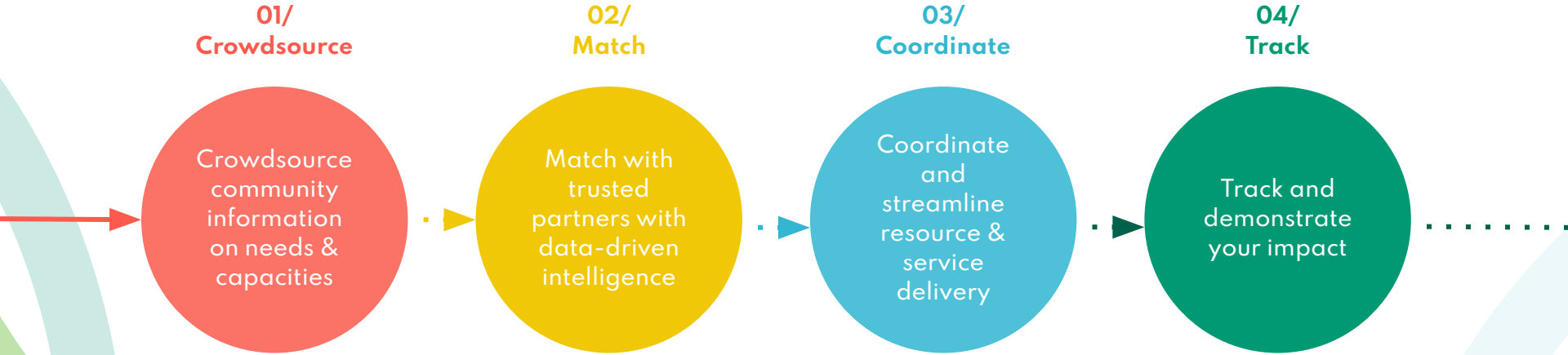


02 Our Solution & Innovation

We connect individuals and organizations to fill in the missing links.



Over the next years, we look to release the following functions to close the last-mile disaster relief gaps and build long-term resilience.

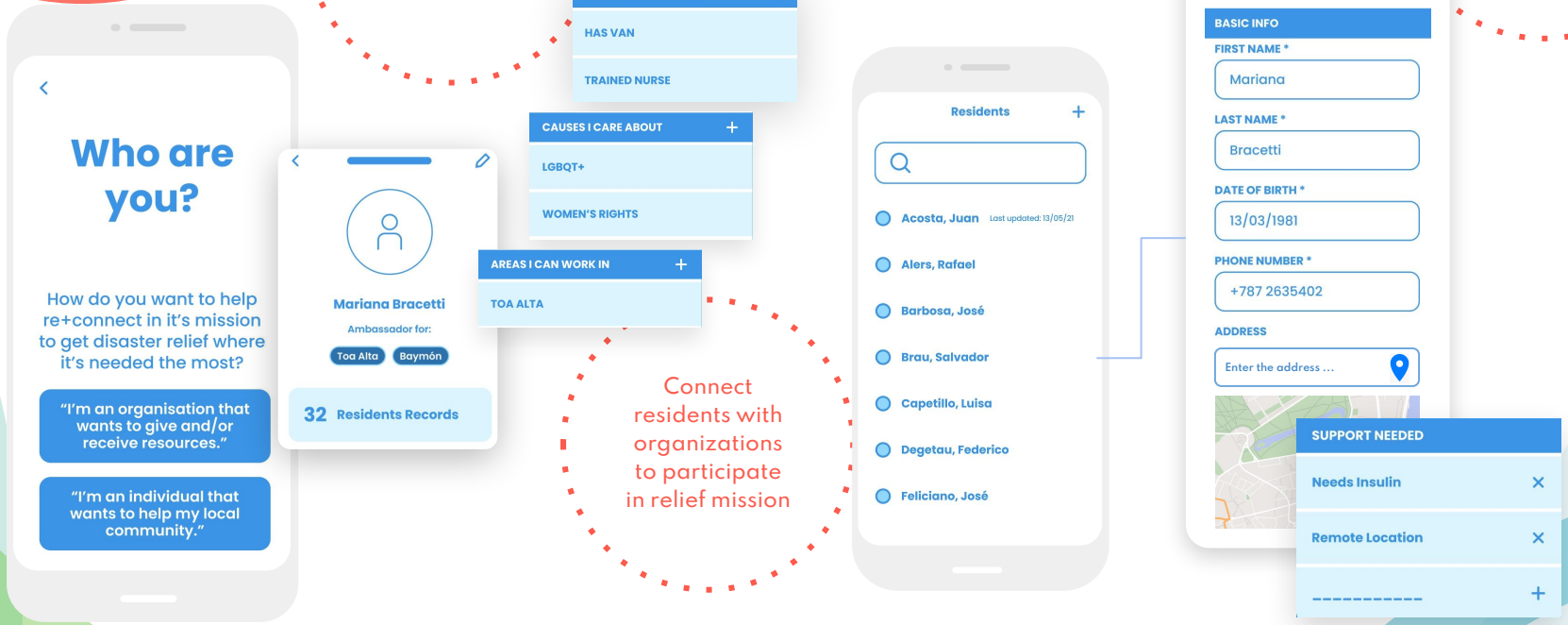


01/ CROWDSOURCE

Crowdsource community information on needs & capacities

Moblize residents to become community ambassadors

Crowdsource important community information for everyone



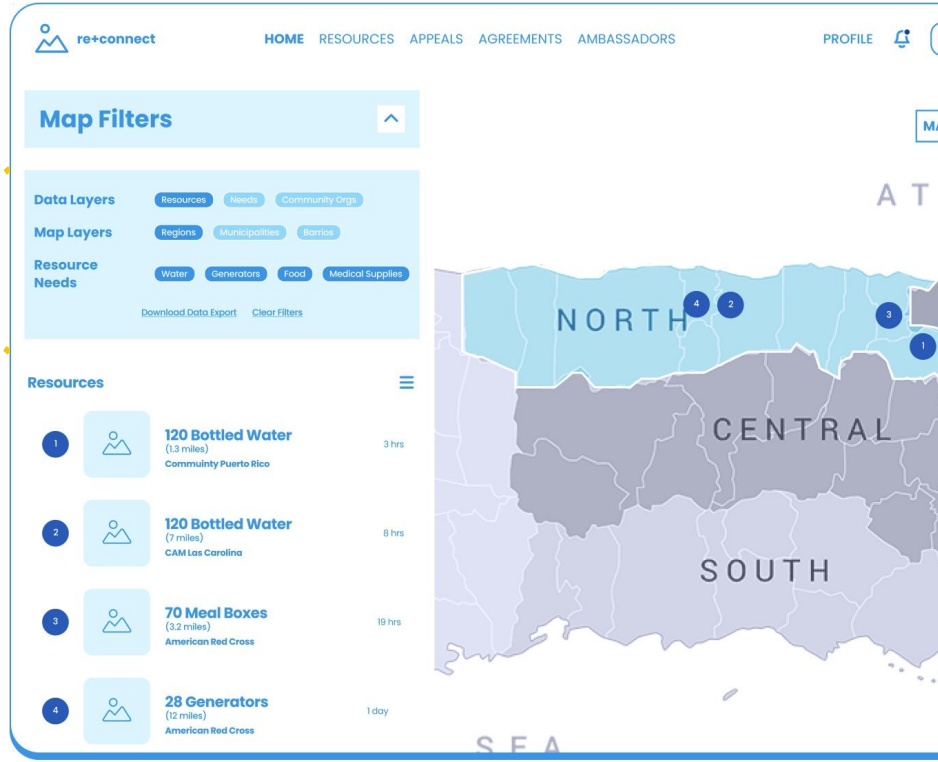
Connect residents with organizations to participate in relief mission

02/ MATCH

Match with trusted partners with data-driven intelligence

Share and find relief resources to help communities in need

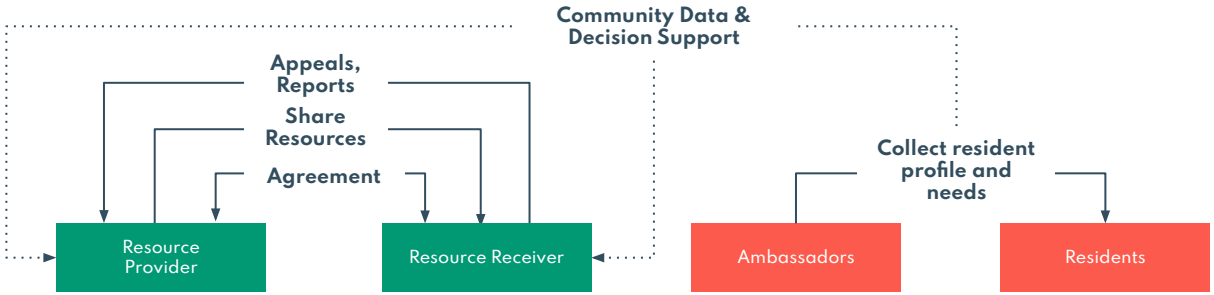
Connect with trusted organizations aligned with your mission



Access data-driven intelligence for improved matching

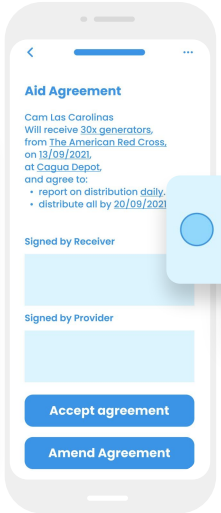
03/ COORDINATE

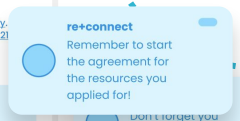
Coordinate and streamline resource & service delivery

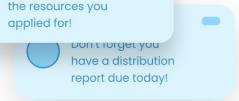


Access all key logistics information in one place

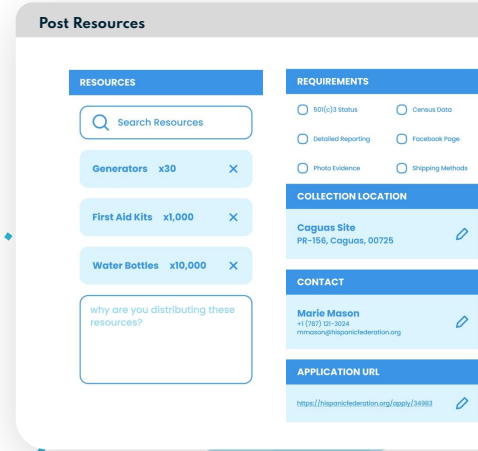
Complete key coordination steps with partners







Post and find relevant relief resources and services made easy



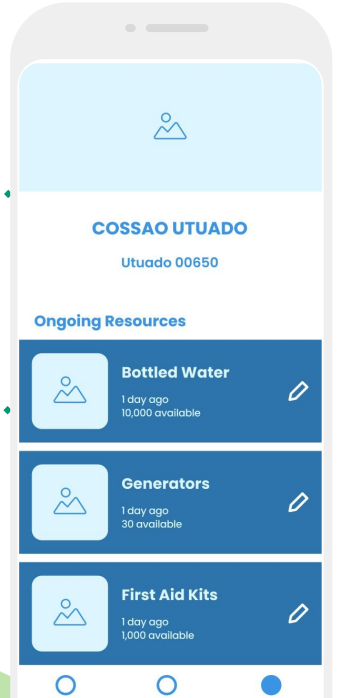
04/ TRACK

Track and demonstrate your impact

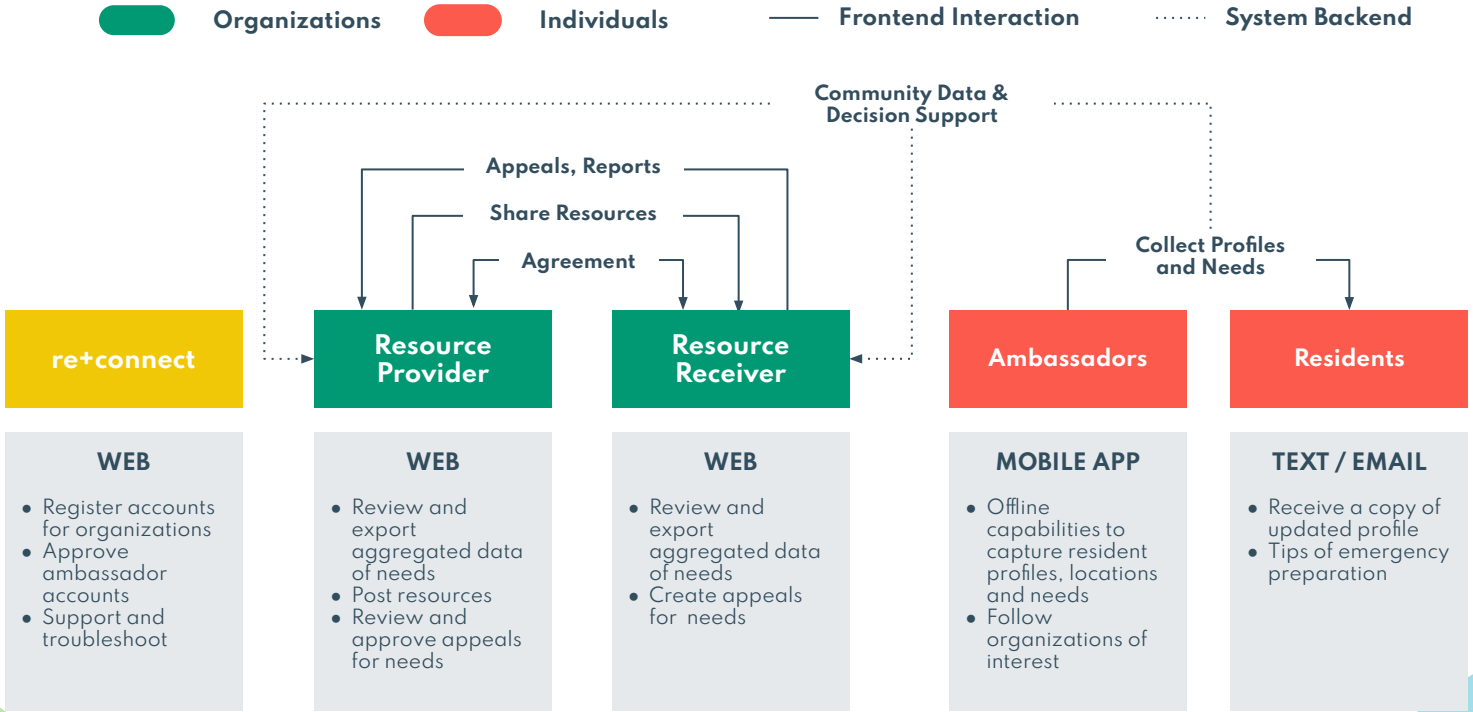
Gather impact reports, data, and stories from multiple partners

Track where relief resources and services have made a difference

View and share your impact with your team and donors

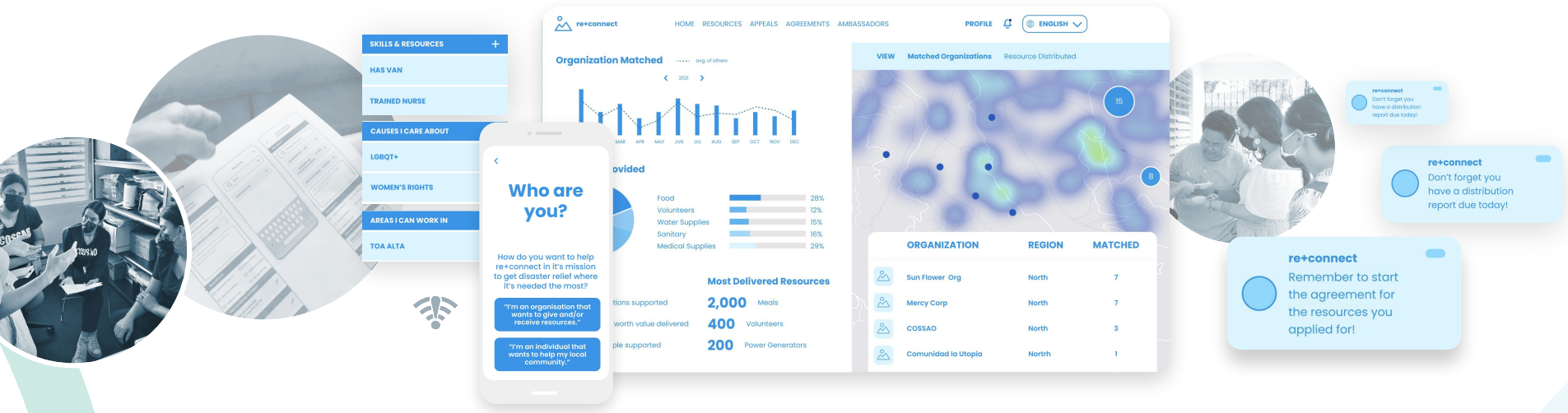


We bring technology, data, and human networks together to close the last-mile relief gaps.



We have studied what's been tried in PR and around the world. We aspire to deliver more.

We co-create a more resilient future with you.



Design with people

We invite all key stakeholder groups to be **an integral part of designing what matters to you,** from the technology solution to how your data is used.

Bridge the gap

We empower residents to become **Community Ambassadors** to **bridge the digital gap** by reaching out to their friends, families, and neighbors who prefer face-to-face.

Disaster-proof tech

We design and build **lightweight applications optimized for offline access**, accounting **uncertainties and limitations due to disasters** and local contexts, with a focus on preparation.

Connect for good

We deploy **social sciences** and best practices to **encourage and augment collective actions** among individuals and organizations as the core of sustainable resilience building.

03 People & Partners

We are an interdisciplinary team dedicated to co-creating a resilient future.

Jasmine Qin

DIRECTOR

MIT & Yale

+ Environmental management
+ Digital development
+ Business development

Azury Lin

PRODUCT

MIT & Parsons

+ Product development
+ Design strategy
+ Branding

Pamela Silva

CO-DESIGN

MIT

+ Collaborative design
+ Co-design facilitation
+ Community resilience

Manveer Kalirai

GOVERNANCE

University of Toronto

+ Research & Innovation
+ Data & tech governance
+ AI & Ethics

Natalia Arcila

COMMUNICATION

Union College

+ Communication strategies
+ Community engagement
+ Disaster response

We are supported by experienced advisors.

David Carrasquillo

AID ORGANIZATION + POLICY

Hispanic Federation

Robert Soden

DISASTER INFORMATICS + TECHNOLOGY

University of Toronto + CoRisk Labs

Jason Jay

BUSINESS + ORGANIZATIONAL CHANGE

MIT Sloan School of Management + Sustainability Initiative

Daniel Aldrich

SOCIAL NETWORKS + DISASTER RESILIENCE

Northeastern University Security and Resilience Studies

Erez Yoeli

BEHAVIORAL SCIENCE + ALTRUISM

MIT Sloan School of Management

We are actively building a robust network.

research

Massachusetts Institute of Technology

Northeastern University

CO - RISK LABS

National Center for Disaster Preparedness
Earth Institute | Columbia University

University of Toronto

Creative Crisis Leadership

BU Law

tech & data

3 SIDED CUBE

ZFG Insights

sponsorship

NSF

Natural Hazards Center

MIT sandbox Innovation Fund Program

VMS Venture Mentoring Service

MIT PKG IDEAS

MITidm

co-development

hispanicfederation

Caminando la Utopía

Iglesia Episcopal Diócesis de Puerto Rico
Programa Redes

Oficina del Procurador de las Personas de Edad Avanzada
Estado Libre Asociado de Puerto Rico

ENDEAVORS

Liga de Ciudades de Puerto Rico

Mercy Corps

Ponce NHS

COSSAO
UTUADO - JAYUYA - CIALES

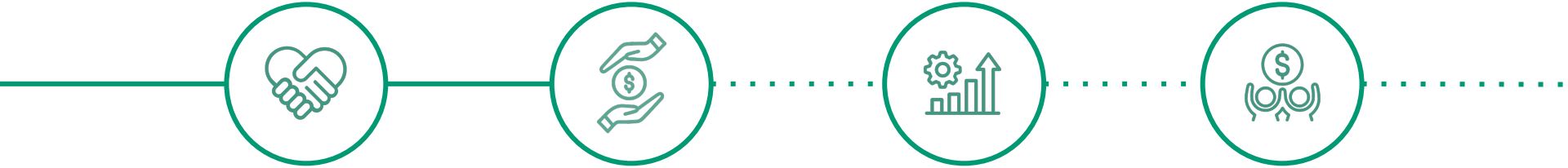
AARP Puerto Rico

Puerto Rico Rises
Forever Preciosa

Co Inspirando
Centro de Apoyo Mutuo Las Carolinas

04 Business & Plans

We deploy diverse funding mechanisms for long-term sustainability.



Grants & Investments

+ Foundations
+ Government grants
+ Individuals
+ Accelerators & competitions

Startup Funding

+ Minimum lovable product built for target users
+ Co-development partnerships

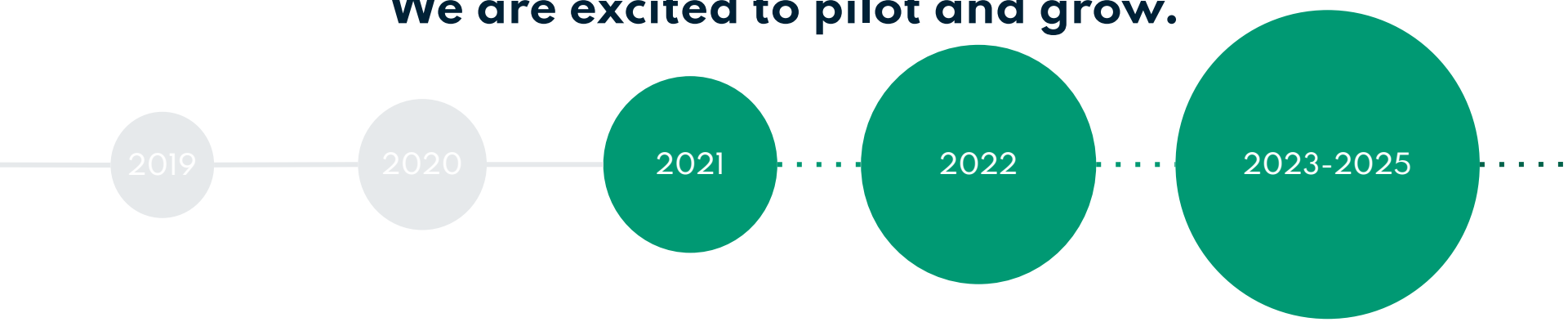
Fee-for-Service

+ Tiered/bundle SaaS and data subscription
+ On-demand advisory consulting services
+ Education and training

Community Fund

+ Voluntary contribution from individuals to support community development work and program maintenance

We are excited to pilot and grow.



Research

+ Initial primary and secondary research on disaster resilience in PR
+ Building partnerships with communities and agencies

Discover

+ In-depth market research with over 40 entities and 100 individuals
+ Nonprofit incorporated

Define

+ 9 collaborative design workshops, 30+ hours of interviews, ethnographic studies with 100+ participants
+ Minimum lovable product (MLP) and roadmap defined

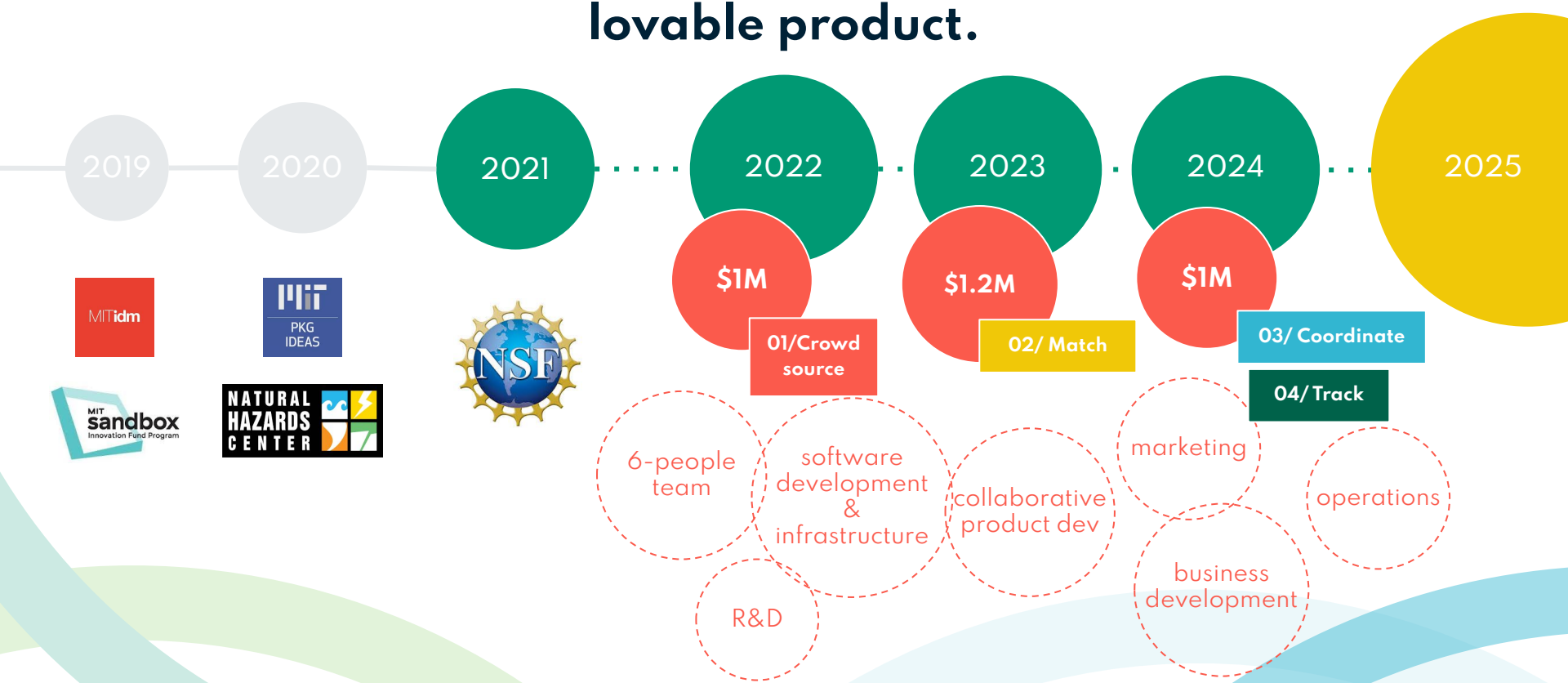
Pilot

+ Build and test MLP that include **01/Crowdsource** (6 months)
+ Reach 100,000 residents in Puerto Rico
+ Continued R&D and collaborative product development

Growth

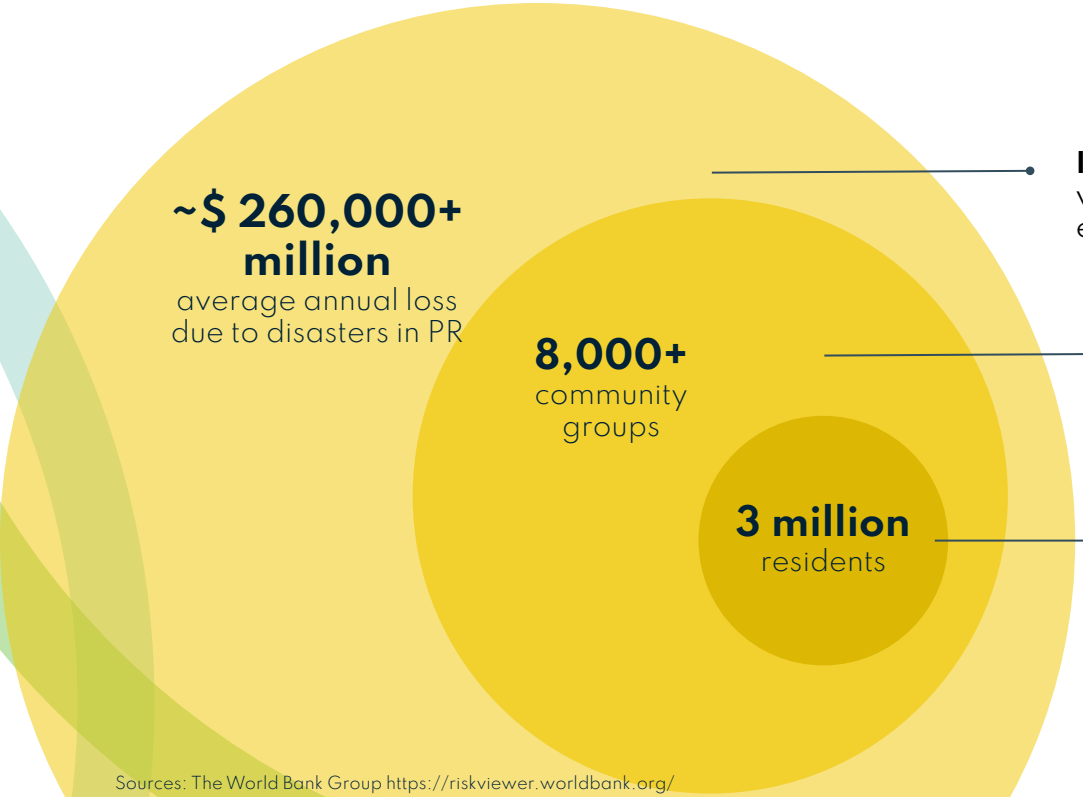
+ Expand product to include functions for **02/ Match**, **03/ Coordinate**, and **04/ Track**
+ Reach 1 million residents in Puerto Rico
+ Engage coastal communities in TX, LA, FL

We are ready to build and pilot our first minimum lovable product.



05 Impact & Strategy

In the age of disasters, we work to achieve impact across scales and actors in Puerto Rico.

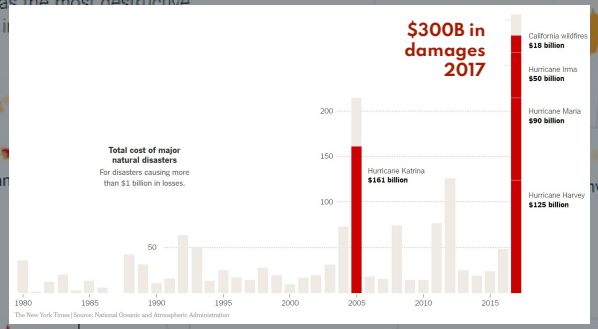


Improve efficacy of relief efforts with better informed decisions and enhanced coordination.

Enhance capacity with effective organizing and access to resources and support.

Reduce harm with improved services and **build resilience** with social engagements.

Sources: The World Bank Group https://riskviewer.worldbank.org/



Puerto Rico is only one of the many places in the US where disasters strike again and again. We look to tailor our solution to where they are needed the most.

Losses in each ZIP code from major natural disasters, 2002 to 2017.

Source: NYTimes - *Losses in each ZIP code from major natural disasters, 2002-17.

With a long-term vision for global impact, we aim to first close the disaster relief gap and build long-term resilience for **1 million residents** in Puerto Rico in the next 5 years.

Source: NYTimes

re+ connect

Closing the Last-Mile
Disaster Relief Gap

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