

# Strengthening the Disaster Resilience of SMEs in Barcelona

Landscape Assessment Study



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For additional information, please contact:

United Nations Office for Disaster Risk Reduction (UNDRR), 7bis Avenue de la Paix, CH1211 Geneva 2, Switzerland, Tel: +41 22 917 89 08

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# FOREWORD

On behalf of the Barcelona City Council, I am pleased to present this Landscape Assessment Study on Strengthening SME Disaster Resilience in Barcelona, prepared in collaboration with the United Nations Office for Disaster Risk Reduction (UNDRR). This report is part of Barcelona's role as a European Resilience Hub from the Making Cities Resilient 2030 (MCR2030) initiative and builds on more than a decade of pioneering work on the city's resilience strategy, our commitment to the 2030 Agenda, and a long-term dedication to tackling climate change. All this work has been embodied in the Barcelona Climate Plan and its ambitious goals to reduce greenhouse gas emissions, adapt to climate impacts, and protect our communities,

Barcelona faces increasing risks from climate-related hazards such as heatwaves, droughts, floods, and storms, alongside technological and systemic disruptions. These challenges threaten not only our environment but also the economic vitality of our city. Small and medium-sized enterprises (SMEs), which make up 95% of Barcelona's business fabric, are particularly vulnerable to these shocks. Strengthening their resilience is therefore key to safeguarding employment and social cohesion, and to sustaining economic development among the businesses most exposed to climate impacts.

The Pla Clima sets out a comprehensive roadmap for climate adaptation and disaster risk reduction, including measures to secure water resources, mitigate heat stress, and enhance urban resilience through nature-based solutions and infrastructure upgrades. This study complements those efforts by focusing on SMEs -critical actors in our economy and community life- assessing their current preparedness and identifying practical steps to close resilience gaps. Its findings confirm that while awareness of risk is growing, formal continuity planning remains rare, and targeted support, tools and incentives are urgently needed.

The recommendations included in this report -integrating SMEs into resilience governance, providing tailored training and financial incentives, mobilising business associations and chambers of commerce, and engaging technology and innovation ecosystem in climate action- are the keys to ensure that resilience becomes a shared responsibility and a standard business practice.

We thank UNDRR and our local partners for their collaboration on this project, and we call on all stakeholders to actively engage in advancing these efforts. Together, through the principles of the Pla Clima and the actions outlined here, and the collaboration with local and global resilience stakeholders, we can build a city that is not only sustainable but also prepared to withstand and recover from future shocks, ensuring prosperity and security for all.



**Ms. Laia Bonet Rull**

1st Deputy Mayor for Urban Planning,  
Climate Action, Mobility, Neighborhood Plan  
and Urban Services, Barcelona City Council

# EXECUTIVE SUMMARY

Barcelona faces growing risks from natural and human-caused hazards, such as storms, wildfires, heatwaves and pandemics, the impacts of which are being amplified by climate change, threatening the city's economic stability. Small and medium-sized enterprises (SMEs), which make up about 95 per cent of the city's businesses, are particularly vulnerable. Recent events highlight this risk: the 2025 Iberian blackout cost Catalan SMEs an estimated €878 million, while Storm Gloria in 2020 led to over 1,500 insurance claims from small businesses. Record heatwaves and wildfires are also disrupting economic activity. Yet most SMEs are poorly prepared: a United Nations Office for Disaster Risk Reduction (UNDRR) study found that over 80 per cent of such businesses have experienced disaster impacts, but only 1.5 per cent maintain formal business continuity plans (BCPs). Key barriers – limited risk awareness, time and funding – hinder resilience efforts, while existing support is fragmented and focused on the general public or broader climate initiatives, rather than SME-specific needs.

## Key findings:

- **SME vulnerability:** SMEs are the backbone of Barcelona's economy but are highly exposed to hazards, as exemplified by the losses they experienced in recent disasters.
- **Lack of preparedness:** Most SMEs do not have formal BCPs to support their disaster resilience, despite many indicating an interest in developing them.
- **Barriers to building resilience:** Limited risk knowledge, time, staff resources and financing hinder SMEs from investing in preparedness.
- **Resource gaps:** Existing frameworks, alert systems, training programmes and funding initiatives supporting climate and disaster resilience in the Barcelona Metropolitan Area are not tailored to SMEs. Support is fragmented, continuity-specific subsidies are rare and few programmes guide SMEs from awareness to planning.

## Recommendations:

- **Disaster risk reduction (DRR) governance:** Include SME representatives in the city's resilience committees and emergency drills. Establish a working group or equivalent on SME resilience to ensure streamlined, inclusive planning and implementation across diverse SMEs.
- **Capacity development and recognition:** Provide modular, practical and sector-specific training with hands-on support to help SMEs build resilience, coupled with a scheme for recognizing their efforts (e.g. Resilient Business seal).
- **Financing and insurance:** Offer targeted funding and affordable disaster insurance solutions for SMEs, run awareness campaigns and establish shared resource initiatives (e.g. group purchasing or pooled funds).
- **Tech4DRR for SMEs:** Create SME-focused digital tools and provide a continuously updated, easy-to-access solutions catalogue.

Barcelona can close the SME resilience gap by replacing fragmented offerings with a unified, SME-first approach – a coordinated mix of governance, technology, incentives, training and monitoring that helps SMEs to adopt BCPs and steadily build resilience. This practical package can keep services running, protect jobs and speed up recovery after disasters strike, turning commitments into concrete actions that bolster both SME resilience and the broader urban resilience of the communities they serve.

# INTRODUCTION

Disasters have resulted in significant costs to Spain over the past decade, with total losses between 2016 and 2025 estimated at €40–45 billion, of which approximately €23 billion had already accrued by the end of 2023 (Fundación Aon España, 2022; Servimedia, 2024). The late-2024 Mediterranean DANA storm alone is estimated to have caused losses of approximately €18 billion, followed by the Iberian-wide power outage, whose economic costs were estimated at about €1.6 billion, or roughly 0.1 per cent of the country's GDP, although some assessments placed the total as high as €4.3 billion (RTVE 2025; El Tiempo, 2025).

The wildfires during August 2025 burned over 410,000 hectares – a record for the century – with early estimates placing firefighting costs above €500 million and agricultural losses at over €600 million (20minutos, 2025; Pérez et al, 2025). Heatwaves reduce economic activity by curbing labour supply and productivity, especially in heat-exposed sectors, contributing to estimated GDP losses of up to 1.4 per cent in Spain. This implies larger damages under warming scenarios (Allianz Research, 2025; European Environment Agency, 2025).

Taken together, these figures underscore the increasing frequency and severity of climate- and weather-related shocks in Spain and provide the context for this assessment of small and medium-sized enterprise (SME) resilience in Barcelona (iAgua, 2021; Servimedia, 2024; Fundación para la Economía Circular, 2025; Pérez et al, 2025).

SMEs are the backbone of the Barcelona Metropolitan Area's economy, comprising 95 per cent of all businesses, yet they remain highly vulnerable to hazards, such as heatwaves, blackouts, floods and droughts. For example, the 2025 Iberian Peninsula blackout was particularly severe for SMEs in Catalonia, where 96 per cent of companies reported direct disruptions to their activity (CECOT, 2025). Losses for Catalan SMEs were estimated at more than €878 million, averaging €1,640 per firm (PIMEC, 2025). Similarly, Storm Gloria in 2020 led to over 1,500 insurance claims from small businesses across the country (Consorcio de Compensación de Seguros, 2022).



In addition to representing most businesses in Barcelona (Ajuntament de Barcelona 2024), SMEs provide essential goods, services and employment across the metropolitan area. This pattern mirrors the wider economic profile of the city, where neighbourhood commerce and service providers are deeply embedded in local supply chains and community life. Their embeddedness makes SME resilience a matter not only of economic stability but also of public welfare.

In this context, Barcelona was selected as one of three pilot cities, alongside Bridgetown, Barbados, and Sendai, Japan, for a UN Office for Disaster Risk Reduction (UNDRR) initiative to support SMEs in strengthening their disaster resilience by enhancing their capacities to plan, invest and make risk-informed decisions. UNDRR is working closely with the Barcelona City Council (Ajuntament de Barcelona) and other local stakeholders to advance the resilience efforts of SMEs in the city. Barcelona's existing role as a Making Cities Resilient 2030 (MCR2030) Resilience Hub reflects its political commitment to driving comprehensive disaster risk reduction (DRR) measures at the local level.

As part of this initiative, this landscape study aims to assess the current state of SME disaster preparedness, identify capability and resource gaps, and inform targeted interventions, particularly around business continuity plans (BCPs), access to finance and capacity-building. The findings provide a detailed snapshot of how prepared Barcelona's SMEs are to withstand and recover from disruptive events, what measures they are already taking and where public-private action can have the greatest impact.

The findings are based on desktop research and an online study of the resilience practices of 67 SMEs from the Barcelona Metropolitan Area conducted between April and July 2025. The study confirmed that recent crises like the 2025 Iberian blackout, Storm Gloria and the COVID-19 pandemic caused significant disruptions to SMEs, with over 80 per cent of respondents reporting direct disaster impacts such as revenue loss or service downtime. Despite this, formal disaster preparedness practices remain very limited, with only 1.5 per cent of surveyed SMEs having BCPs. The respondents expressed a strong interest in creating or updating their BCPs to improve resilience, indicating a strong demand for the project's support activities.





# METHODOLOGY

## Desktop research, interviews and an online study

This assessment is based on desktop research, individual interviews and a landscape study conducted among SMEs in Barcelona and its metropolitan region. Fieldwork was conducted from early April to late July 2025 and yielded 67 responses spanning a wide range of sectors. The study combined closed questions (yes/no and multiple-choice) with open-ended prompts, covering awareness of disaster and climate risks, past impacts, current risk reduction and continuity practices, critical dependencies, access to support and perceived needs.

Closed questions were quantified by counting responses and calculating percentages for each option. Qualitative data – including open-ended responses, interviews and workshop findings – were examined to extract illustrative examples, lessons learned and requests for support. Where relevant, results were broken down by SME size (e.g. micro-enterprises versus small or even medium-sized enterprises), although most findings are presented in aggregate.

A desk review of municipal and national documentation situates the landscape study findings within Barcelona's broader DRR context. Sources included the city's Resilience Strategy, Climate Adaptation Plan, civil protection regulations and recent studies on Spanish SMEs and disasters. Insights gathered during a UNDRR-hosted workshop on SME resilience in Barcelona in March 2025 also informed the review.

The composition of the respondents was as follows: 53.7 per cent were micro-enterprises with 1–9 employees, 25.4 per cent were small SMEs with 10–49 employees, and the remainder fell into the medium or larger SME category. A majority (91 per cent) operate in non-manufacturing services, such as retail, hospitality, professional services and the non-profit sector.

The data set, comprising responses in both Catalan and Spanish, offers a snapshot of resilience practices across diverse businesses. The figures presented here aggregate responses in both languages to provide a unified analysis.

## Limitations

This landscape assessment study is not statistically representative of all SMEs in Barcelona, and respondents may be more engaged with resilience issues than the average business owner. Many responses rely on self-reported data, including SMEs' own estimates of losses and their subjective understanding and familiarity with DRR concepts. Despite these limitations, the study revealed consistent response patterns that align with known trends across the city, supporting the reliability of this snapshot report. Accordingly, the recommendations are framed to benefit the broader SME community while acknowledging the constraints of the sample.



# BARCELONA'S RISK PROFILE AND POLICY FRAMEWORKS

## Disaster risk profile of Barcelona

Barcelona is a densely populated coastal city with a complex risk landscape, shaped by both sudden and slow-onset climatic, technological and biological hazards, and distinct socioeconomic features. The urban fabric, port logistics hub and diversified, service-oriented economy – including a significant tourism sector – concentrate high densities of people, assets and small businesses within a narrow coastal corridor bordered by the Collserola mountain range and the Mediterranean Sea. This topography amplifies both hydrometeorological extremes and the potential for cascading infrastructure breakdowns.

A trilogy of events between 2006 and 2008 – the 2007 electricity blackout that left approximately 350,000 citizens without power for several days, the prolonged regional rail closure during construction of the high-speed line and the worst drought on record – exposed systemic vulnerabilities, prompting the city of Barcelona to launch a formal resilience agenda in 2009.

Subsequent events have reinforced Barcelona's multi-hazard context: a "once-in-a-generation" snowfall in March 2010 paralysed mobility, while deadly terror attacks on La Rambla in August 2017 and the subsequent waves of civil unrest in 2017 and 2019 disrupted business activity. In January 2020, Storm Gloria devastated coastal defences and transport links, and the COVID-19 pandemic triggered a 12-month collapse in visitor numbers, with successive lockdowns cutting the turnover of many SMEs by 30–60 per cent. More recently, a drought emergency declared in February 2024 severely strained the city's water supply and urban cooling systems. On 30 July 2024, the Fabra Observatory registered a record high temperature of 39.8°C, placing additional strain on energy grids and public health systems already challenged by depleting water reserves. Most recently, the Iberian blackout of 28 April 2025 directly or indirectly affected 95 per cent of Catalan SMEs. Reported business losses ranged from €606 to €25,818 per company, with an average of €1,640 per enterprise (PIMEC, 2025). These impacts are consistent with the survey findings collected from SMEs for this assessment.



## Policy and legal frameworks for disaster risk reduction

DRR and climate change adaptation policies and regulations are guided by a combination of high-level, sectoral and interconnected strategic frameworks and policies, as exemplified in Table 1 below.

**TABLE 1:**  
List of key strategic documents guiding Barcelona's DRR and climate change adaptation efforts

| CATEGORY   | OFFICIAL NAME (CATALAN/SPANISH)  | ENGLISH NAME (OFFICIAL/TRANSLATION)  | JURISDICTION                        | YEAR  |
|--|--|--|-------------------------------------|---|
| Urban resilience                                       | BARCELONA: Building a Resilient City – The Barcelona Resilience Model                    | (same as official; city Resilience Strategy document)  | City of Barcelona                   | ~2017–2018  |
| Climate change adaptation / mitigation                 | Pla Clima 2018–2030 de Barcelona (Catalan) / Plan Clima 2018–2030 de Barcelona (Spanish) | Barcelona Climate Plan 2018–2030   | City of Barcelona                   | 2018 (plan), updates 2021 (PAEC <sup>1</sup> ) and 2024 (MdG Pla Clima <sup>2</sup> ) |
| Climate change mitigation                              | Acord Climàtic de Ciutat de Barcelona (Missió NetZeroCities)                             | Climate City Contract of Barcelona (NetZeroCities Mission)                                     | City of Barcelona                   | 2023  |
| Climate change adaptation                              | Pla Calor 2025–2035: mesures per fer front a la calor a la ciutat                        | Heat Plan 2025–2035: measures to deal with heat in the city                                    | City of Barcelona                   | 2025  |
| Municipal civil protection plan                        | Document Únic de Protecció Civil Municipal (DUPROCIM)                                    | Single Municipal Civil Protection Document (DUPROCIM)  | City of Barcelona (municipal level) | Framework set by 2014 decree  |
| Territorial civil protection (general)                 | Pla Territorial de Protecció Civil de Catalunya (PROCICAT)                               | Catalonia Territorial Civil Protection Plan (PROCICAT)   | Government of Catalonia             | Current consolidated version  |
| Civil protection implementing decree (municipal plans) | Decret 155/2014, de 25 de novembre (contingut mínim dels plans municipals)               | Decree 155/2014 (minimum content and procedure for municipal civil protection plans)           | Government of Catalonia             | 2014  |
| Self-protection obligations                            | Decret 30/2015, de 3 de març (catàleg d'activitats obligades a mesures d'autoprotecció)  | Decree 30/2015 (catalogue of activities/facilities required to adopt self-protection measures) | Government of Catalonia             | 2015  |
| Special hazard plan – floods                           | INUNCAT: Pla especial d'emergències per inundacions de Catalunya                         | INUNCAT: Special Emergency Plan for Floods in Catalonia  | Government of Catalonia             | Current   |

1 PAEC (Climate Emergency Action Plan) is Barcelona's commitment, adopted in 2021, to reduce greenhouse gas emissions by 50 per cent by 2030 and achieve climate neutrality by 2050.

2 The Government Measures Climate Plan (Mesures de Govern Pla Clima) refers to the specific actions and measures that the local government (the Barcelona City Council) takes to address various issues within the city.

| CATEGORY   | OFFICIAL NAME (CATALAN/SPANISH)   | ENGLISH NAME (OFFICIAL/TRANSLATION)                           | JURISDICTION                    | YEAR                               |
|--|---|---|---------------------------------|------------------------------------|
| <b>Special hazard plan – wildfires</b>                       | INFOCAT: Pla especial d'emergències per incendis forestals de Catalunya | INFOCAT: Special Emergency Plan for Forest Fires in Catalonia | Government of Catalonia         | 2024 revision                      |
| <b>Special hazard plan – snow/ice</b>                        | NEUCAT: Pla especial d'emergències per nevades a Catalunya              | NEUCAT: Special Emergency Plan for Snowfalls in Catalonia     | Government of Catalonia         | Current (Spanish/Catalan pages)    |
| <b>Special hazard plan – wind</b>                            | VENTCAT: Pla especial d'emergències per risc de vent a Catalunya        | VENTCAT: Special Emergency Plan for Wind Risk in Catalonia    | Government of Catalonia         | 2017 plan; ongoing activations     |
| <b>Special hazard plan – earthquakes</b>                     | SISMICAT: Pla especial d'emergències sísmiques a Catalunya              | SISMICAT: Special Emergency Plan for Earthquakes in Catalonia | Government of Catalonia         | 2020 annex; current plan           |
| <b>Metro area climate adaptation</b>                         | Pla d'Adaptació al Canvi Climàtic 2018–2030 (AMB)                       | Metropolitan Climate Change Adaptation Plan (AMB)             | Àrea Metropolitana de Barcelona | 2018–2030                          |
| <b>Province – Climate change / adaptation and mitigation</b> | Pla Clima de la Diputació de Barcelona                                  | Barcelona Provincial Council Climate Plan                     | Provincial (311 municipalities) | 2022 (first edition, horizon 2030) |

## Barcelona Climate Plan 2018–2030

The Barcelona Climate Plan (known as “Pla Clima 2018–2030”) is the city’s main road map for significant emissions reductions and climate adaptation by 2030, with the longer-term goal of achieving climate neutrality by 2050. This municipal level plan originally targeted a 45 per cent reduction in greenhouse gas emissions by 2030 (compared to 1992 levels), a goal later raised to 50 per cent under the city’s Climate Emergency Declaration in 2020, and raised again to 80 per cent (compared to 2019, only scope 1 and 2 emissions, excluding the port and airport) following Barcelona’s inclusion as part of the EU Mission to deliver 100 climate-neutral and smart cities by 2030.

The 2024 revised version of the Climate Plan sets out a road map comprising six programmes with their respective lines of action: Heat Plan, Resilience Plan, Mobility Plan, Energy Transition Plan, Neighbourhood Climate Plan and “Changing for the Climate” Plan (known as “Canviem per Clima”).

Barcelona’s local DRR strategy is based on the Resilience Plan, which prepares the city for current and future climate risks, including drought, flooding, sea level rise, wildfires and biodiversity loss. Initially approved by the City Council in February 2016, the plan establishes a four-stage cycle to guide resilience-building measures: vulnerability analysis, readiness assessment, identification of gaps and definition of resilience measures.



The 2024 revisions strengthened the Resilience Plan by including targeted adaptation measures to secure the city's water supply and address flood risk.

Operationally, the Resilience Plan is delivered through three interlocking pillars: risk management, coordinated by the Operations Centre (Central d'Operacions); risk analysis, conducted by a municipal Resilience Platform, which integrates open-data feeds and simulation tools; and risk reduction, led by multi-stakeholder Urban Resilience Boards that implement projects to address or mitigate identified vulnerabilities.

Within the broader Climate Plan, DRR objectives are embedded in hazard-specific adaptation measures:

- Heat-related actions prioritize the adaptation of public space through expanded shading (tree planting, awnings, pergolas) and the roll-out of “climate shelters” to provide safe, cooled environments during extreme heat events. The recently approved Heat Plan 2025–2030 widens the range of envisioned actions to cover more sectors and incorporate more innovative solutions.
- Flood-risk mitigation combines upgrades to the sewer network with nature-based solutions, such as permeable paving, green corridors and rain garden installations, which improve stormwater absorption and reduce run-off peaks.
- In response to recurrent drought conditions, the plan advances water efficiency programmes and diversifies supply through reclaimed water systems, groundwater recharge and other alternative resources.
- Wildfires: The city is strengthening fire prevention and preparedness in these zones to manage this emerging risk.
- Complementary measures include subsidies to improve energy efficiency in buildings – covering rehabilitation works, installing green roofs and other retrofitting interventions – and the promotion of local energy communities to decentralize generation, strengthen supply security and reduce dependency on external grids.

Taken together, these actions reflect the DRR principle of coupling hazard-specific adaptation with systemic resilience measures, ensuring that climate, infrastructure and community priorities are addressed in a coherent policy framework.

## Metropolitan Climate Change Adaptation Plan

The Metropolitan Climate Change Adaptation Plan (PACC 2018–2030), adopted by the Barcelona Metropolitan Area, is embedded within the Area’s broader Climate and Energy Plan 2030, providing a metropolitan-scale framework for climate adaptation. It emphasizes enhancing resilience through restoring and expanding green and blue infrastructure, improving water resource management (including alternative supply and drainage systems) and creating climate shelters in public facilities for vulnerable populations. The PACC 2018–2030 aligns with the municipal Barcelona Climate Plan (Pla Clima 2018–2030), especially in its adaptation components, such as reducing heat vulnerability, ensuring adequate water supply, mitigating flooding and protecting coastal areas. Together, the metropolitan and municipal plans form a coordinated, multi-scale approach to building resilience across the region.

## Barcelona Provincial Council – Pla Clima

The Barcelona Provincial Council (DIBA) Pla Clima (to 2030) is an internal corporate plan that enables local action through technical assistance, guidance for municipal planning, funding lines and knowledge networks.



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## Alignment of international, national, subnational and local frameworks

The national framework in Spain – the National Civil Protection System Law (Ley 17/2015, de 9 de julio, del Sistema Nacional de Protección Civil) and the Basic Civil Protection Standard (Real Decreto 524/2023, de 20 de junio, por el que se aprueba la Norma Básica de Protección Civil) – establishes a multi-level system across state, regional and local levels. It defines common planning rules and strategy. Municipalities manage their own plans and the initial response in their areas, in coordination with regional and national authorities.

In Catalonia, these national mandates are implemented through PROCICAT (the territorial civil protection plan) and a set of special hazard subplans, including INUNCAT (floods), INFOCAT (wildfires) and NEUCAT (snow). These plans are mandatory and produced by the Catalan civil protection authority.

At the city level, DUPROCIM serves as Barcelona’s municipal civil protection plan, integrating and coordinating all hazard-specific municipal emergency plans to ensure alignment with the regional civil protection framework (PROCICAT) and its special subplans.

Spain has also endorsed the Sendai Framework for Disaster Risk Reduction 2015–2030 and the EU Adaptation Strategy, both of which offer a comprehensive framework for developing and implementing resilience measures across multiple sectors and stakeholders, including the private sector and SMEs.



## SME inclusion in policy and legal frameworks

The Barcelona Climate Plan’s “Changing for the Climate” programme seeks to mobilize all of society, encouraging individuals, businesses and organizations to participate in resilience-building efforts. The private sector is viewed as a key partner, with several instruments introduced by the local government to encourage private sector and community participation in risk reduction and preparedness activities.

The Barcelona Climate Plan also identifies SMEs as “critical socioeconomic assets”, but offers only “soft” measures, such as information campaigns and voluntary network participation. In 2021, the city revived its Municipal Resilience Committee, tasked with mainstreaming resilience across departments, yet meeting records show minimal SME representation.

SME inclusion in the Barcelona Climate Plan is mainly indirect: town halls and partner associations use DIBA support to run some SME-facing activities (e.g. local risk information, heat/flood measures in commercial areas, basic BCP awareness). DIBA also runs some direct SME programmes on competitiveness and modernization, but these are not DRR- or BCP-specific.



Within the regional civil protection framework (PROCICAT) and its special subplans, SMEs are also only considered indirectly – as part of the general population or as service users – rather than being recognized as active partners in resilience and preparedness efforts. SMEs mostly rely on general civil protection materials or occasional advice from business associations to integrate alerts and emergency phases into their continuity planning.

In Catalonia, a self-protection plan (Plan de Autoprotección, or PAU), which includes emergency preparedness measures, is mandatory for certain activities and facilities, as listed in Decree 30/2015. The PAU defines procedures for prevention and emergency response in activities that exceed public attendance thresholds or involve specific hazards. For example, chemical storage facilities, industrial facilities, fuelling stations and amusement parks are among those facilities required to have a PAU. SMEs are not explicitly mentioned; obligations are triggered by activity type and risk thresholds, not company size. Ordinary retailers, cafés and so on therefore navigate resilience obligations primarily through occupational risk prevention rules, including measures such as evacuation signage, fire extinguishers and annual drills, but fall short of requiring comprehensive business continuity planning processes.

All employers, regardless of their size or sector, are required to establish basic emergency measures for workers (first aid, firefighting and evacuation) under Ley 31/1995, article 20.

Furthermore, the Seveso rules on substances (transposed from the EU Seveso III Directive into Spanish law via RD 840/2015), the industrial fire safety regulation (RSCIEI, RD 164/2025) and the active fire protection systems (RIPCI, RD 513/2017) outline additional obligations and other specific requirements. Coordination with the city takes place through Barcelona’s municipal civil protection plan (DUPROCIM), while the Barcelona Fire Department provides prevention guidance and oversight for certain activities.

Beyond these mandates, BCPs or other measures are recommended but generally voluntary unless required by sector standards or through supply chain or other contractual requirements.

When drought phases are declared, SMEs must comply with water use restrictions under the Catalan Water Agency (ACA) Drought Plan and the city's drought protocol (e.g. limits on certain commercial uses, tighter savings targets in emergency/exceptional phases). On heat, Barcelona's new Pla Calor 2025–2035 expands cooling, shade and climate shelter actions, including a programme under which shops and pharmacies can voluntarily act as public "micro-shelters" (offering a place to sit and/or water) and are marked with a specific badge. While aimed at the whole city, SMEs can align with this approach by improving indoor thermal comfort and contributing to local networks.

Beyond compliance, the city and the region encourage voluntary climate adaptation upgrades by offering incentives such as green-roof/renaturalization grants, as well as aid for self-consumption and energy efficiency. These are often managed by the Catalan Institute of Energy (ICAEN) and Institute for the Diversification and Saving of Energy (IDAE). Many SMEs use these incentives to reduce heat impacts, manage stormwater and improve resilience. In practice, this means SMEs play a dual role: complying with episodic measures (e.g. drought or heat alerts) and investing voluntarily in building upgrades, water and energy efficiency measures, and other infrastructure-related improvements that reduce climate impacts on staff, customers and neighbourhood services.

At the national level, the Basic Civil Protection Standard introduces simplified planning models that may be suitable for small businesses. However, like Decree 30/2015, it does not specifically target SMEs. Compliance depends on activity type and risk thresholds, not company size.

Catalonia's Climate Change Law (Llei 16/2017) embeds adaptation into public policy and economic activity, while the national PNACC 2021–2030 provides sector guidance that many SMEs follow through supply chain or local requirements.

## Public-private coordination structures and practices

**Coordination with critical infrastructure operators:** Electricity, water and telecommunication operators hold seats in the city's Operations Centre (Central d'Operacions) and share outage maps in real time, a practice tested during Storm Gloria. However, survey data indicate that these information flows do not effectively reach SMEs: only about one third of respondents reported receiving direct information on preparedness measures, crisis exercises, and early warnings and alerts, while many learn of disruptions only after they have occurred.



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**Collaboration between the city and business associations and networks:** Barcelona’s Climate Plan (Pla Clima 2018–2030) includes the “Changing for the Climate” (“Canviem pel Clima”) programme, which encourages businesses, organizations and citizens to take action on sustainability and climate resilience. This programme is linked to the Barcelona + Sostenible network, a collaborative platform that brings together hundreds of businesses committed to implementing climate measures, sharing good practices and developing innovative solutions together. These initiatives all help the city to engage the private sector and civil society in achieving Barcelona’s climate and resilience goals.

Local chambers of commerce and business associations, including Barcelona Comerç—which alone represents more than 4,000 small retailers across 24 high-commercial-density streets—collaborate with the city to support the development of small businesses. Public–private coordination for SME resilience is also exemplified by the Barcelona Tourism Sustainability Commitment, jointly led by the City Council, Chamber of Commerce and Barcelona Tourism Consortium, which helps local SMEs to align with the United Nations 2030 Agenda and its 17 Sustainable Development Goals (SDGs).

**Innovation ecosystems:** Barcelona has demonstrated long-standing leadership in both resilience and innovation. The city created a dedicated Resilience Department, is a member of the Resilient Cities Network initiative, became Europe’s first MCR2030 Resilience Hub and participates in the UN-Habitat City Resilience Profiling Programme, all of which provide strong institutional support for resilience innovation.

Past public–private collaborations, such as the Barcelona Urban Resilience Partnership (including large companies, SMEs, research centres and spin-offs), have tested how stakeholders can work together to drive the city’s resilience forward. Today, a strong knowledge base includes research centres, university spin-offs, innovative SMEs and specialized academic programmes in urban resilience and disaster risk management, supplying talent and practical tools and services that could support the development of products and services to strengthen SME resilience.



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The city recently established a new municipal by-law on Urban Experimental Spaces (Ordenança dels Espais d'Experimentació Urbana) that will regulate how and where innovative initiatives can be put into practice by universities, research groups and companies (Ajuntament de Barcelona, 2025a). It includes all the types of experimentation spaces identified by the European Union, such as sandboxes, test beds and living labs. However, experimentation with practical new SME-focused solutions remains limited, and further support is needed to translate this potential into widespread adoption.

Other ongoing initiatives aim to provide SMEs with information and knowledge, such as Institut Cerdà's observatory on business risks in Spain, the College of Industrial Engineers in Catalonia's business continuity working group and annual events focused on DRR and resilience at the Smart City Expo World Congress (with Mobile World Capital Barcelona exploring a dedicated resilience track).

In addition, a new wave of resilience-focused start-ups is attracting investment and testing business models around risk transfer and resilience services, while EU-funded projects actively engage local stakeholders and SMEs.<sup>3</sup>

Despite Barcelona's robust public sector DRR policies and governance architecture, and the active ecosystem of business networks, linkages between the two remain largely project-based and fragile. Embedding SMEs into formal planning cycles, providing tailored incentives, and institutionalizing two-way information channels will be critical for ensuring the city's resilience ambitions translate from policy to practice.

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3 Startups, research centres and innovation initiatives such as Mitiga Solutions, the Barcelona Supercomputing Center and EU projects like ICARIA, RESCCUE and RESIST are developing tools and services to help SMEs and the wider private sector strengthen resilience.

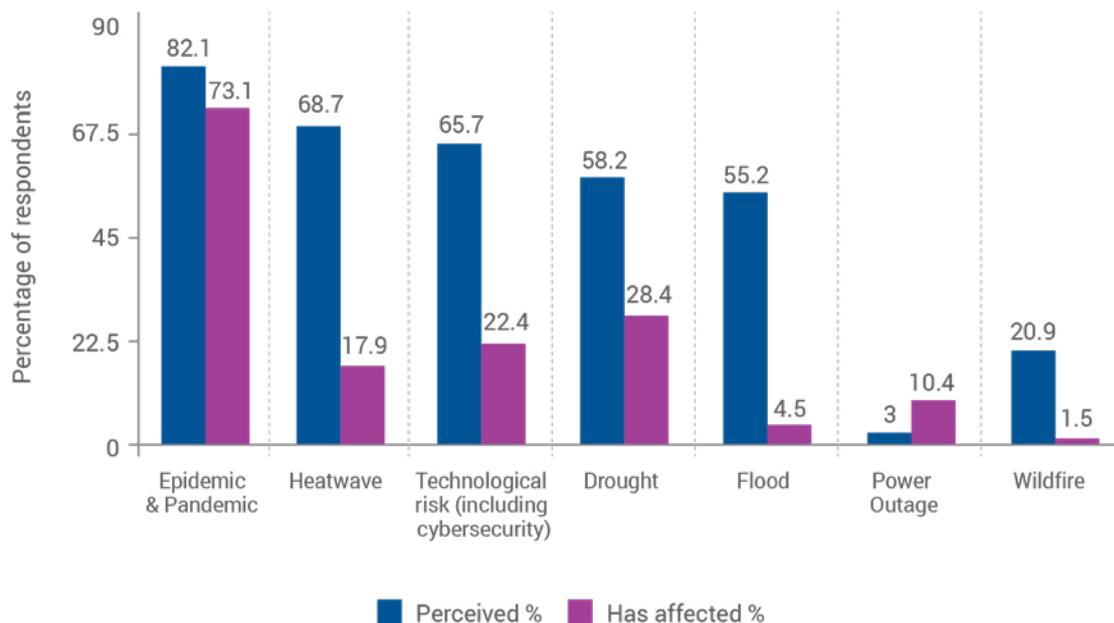


# ASSESSMENT OF SME BUSINESS RESILIENCE

## Impact of disasters on small and medium-sized enterprises

The landscape assessment study data indicate that approximately 79 per cent of SMEs have been directly affected by a hazard within the past five years. Figure 1 compares SMEs' perceived risk of hazards with the hazard they have experienced. Epidemics and pandemics rank highest in both categories, reflecting the profound impact of COVID-19 on SMEs. Heatwaves, technological risks (including cybersecurity) and droughts were widely perceived as significant hazards, yet relatively few respondents reported direct impacts from them. Power outages emerged as the fifth most reported impact. Very few SMEs reported losses from floods or wildfires despite these hazards being prominent in the city's risk profile. It is worth noting that the SME survey was conducted prior to the wildfire events in Spain in August 2025.

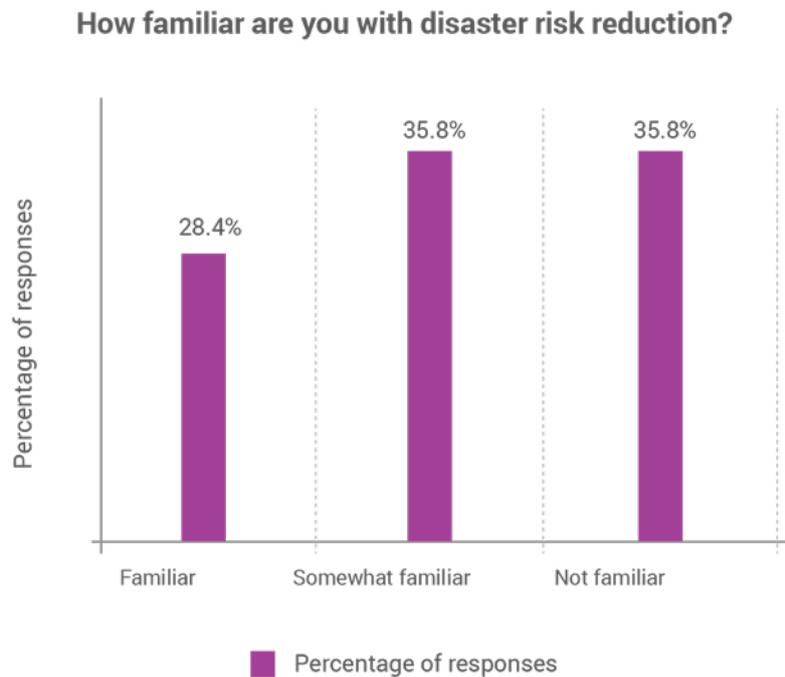
**FIGURE 1:**  
Comparison of perceived risk and actual experienced impacts of key hazards among surveyed SMEs



## SME knowledge of resilience practices

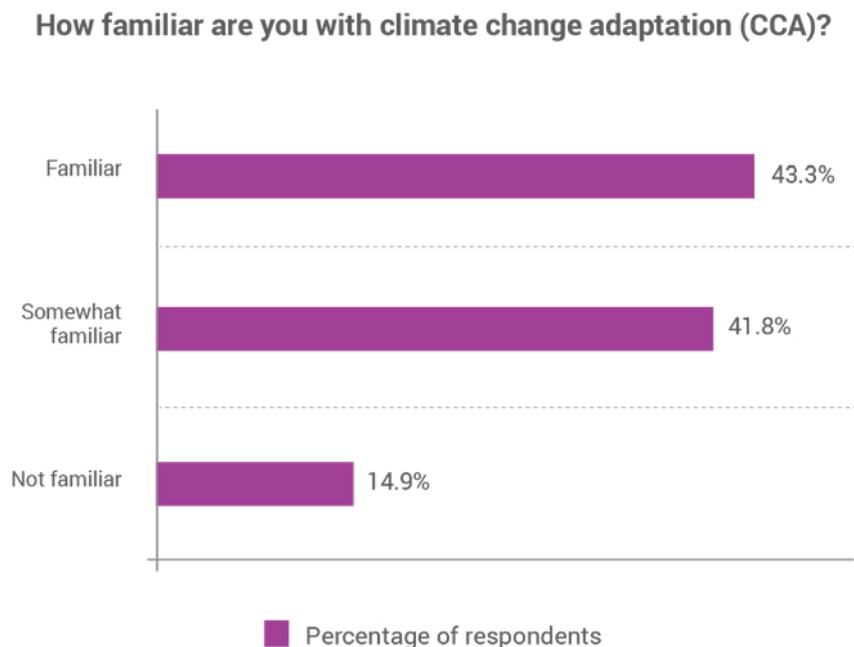
The results show that most SMEs only possess a basic understanding of DRR. Awareness is evenly spread across the three groups, with the majority either only somewhat familiar (35.8 per cent) or not familiar at all (35.8 per cent). Only 28.4 per cent consider themselves familiar, indicating that DRR knowledge is still limited and further awareness-raising efforts would be justified. Furthermore, while some respondents recognized DRR terms, their understanding was often shallow: they were able to name hazards and discuss their likelihood and impact, but are not yet applying these concepts in practical analysis or decision-making to reduce risks.

**FIGURE 2:**  
**SME familiarity with DRR concepts**



With regard to terminology, climate change adaptation shows the strongest baseline among SMEs: 43.3 per cent were familiar with adaptation concepts and 41.8 per cent were somewhat familiar, though 14.9 per cent reported no familiarity. These results reflect the prominence of public discourse on heatwaves and droughts in Barcelona and its metropolitan area, and suggest that adaptation can serve as a catalyst for further engaging SMEs on resilience. Most already recognize the importance of the issue and are receptive to measures that reduce heat exposure, manage water stress and prepare for service disruptions.

**FIGURE 3:**  
**SME familiarity with climate change adaptation concepts**



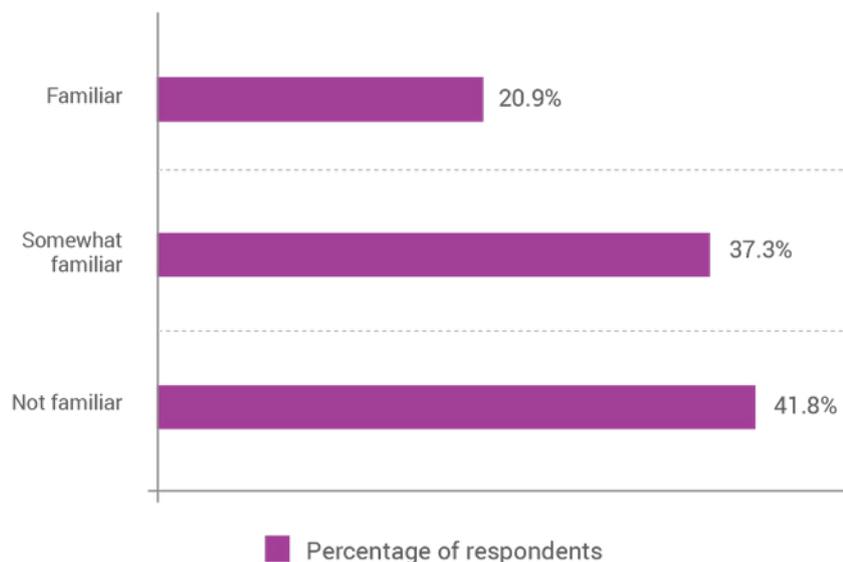


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Awareness is weakest when it comes to practical resilience and continuity planning – areas that are critical for ensuring SME resilience to disaster events. Only 20.9 per cent of SMEs reported familiarity with these practices, 37.3 per cent reported some familiarity and 41.8 per cent reported no familiarity.

**FIGURE 4:**  
SME familiarity with resilience practices

How familiar are you with disaster resilience practices and business continuity planning?



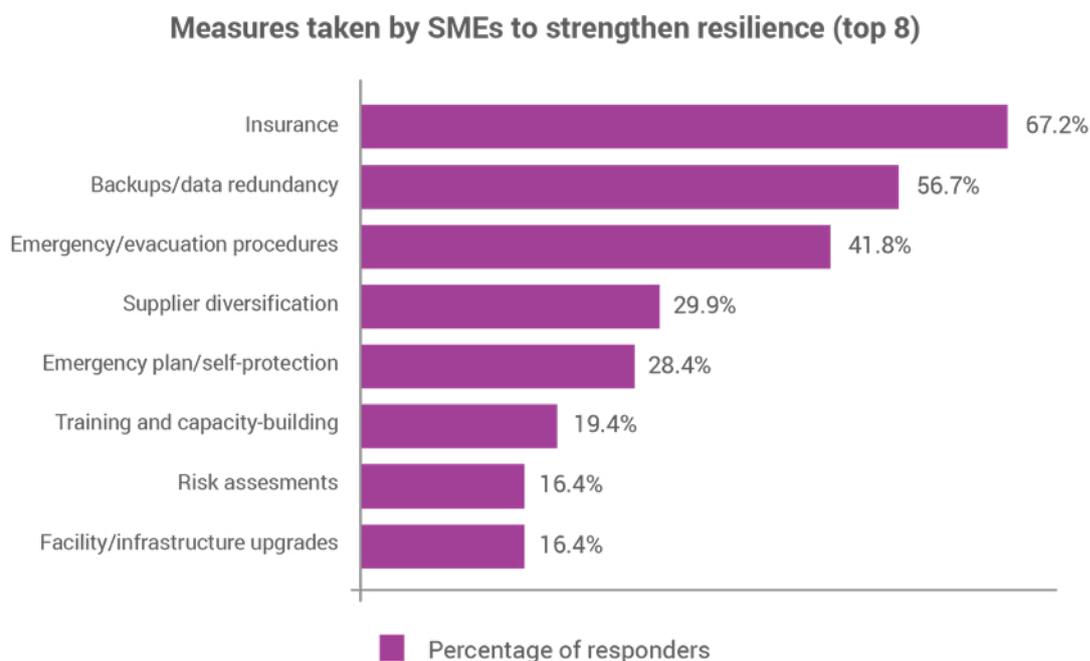
## SME adoption of resilience measures

The survey results also indicate a significant gap between awareness of risk and adoption of resilience measures. While most SMEs acknowledge the existence of risks and recognize a wide range of hazards, few possess a clear understanding of the resilience measures that could minimize or prevent operational disruptions. Practical preparedness remains limited. This is evident in recurrent organizational weaknesses, including unclear roles and responsibilities for emergency management, the absence of updated contact trees, insufficient redundancy and backup systems for critical functions such as payments and IT systems, and a lack of predefined priorities for maintaining essential processes when staffing or utilities are constrained. Without targeted support to address these deficiencies, SMEs remain vulnerable to avoidable losses and prolonged recovery periods following hazard events.

In qualitative responses, many SMEs emphasized that during COVID-19, they relied more on improvisation and personal networks than on formal plans.

Among the respondents who specified the measures they have put in place, examples describe establishing simple evacuation procedures, creating off-site or cloud backups for critical data, and adopting remote working capabilities to maintain services during transport or utility disruptions. Some reported stocking a minimal inventory of essential supplies, adding surge protection or small UPS units for critical devices, and identifying alternate suppliers to mitigate logistical delays. A smaller set has invested in on-site upgrades such as shading, ventilation improvements or basic water efficiency kits to reduce exposure to heat and drought. These measures can reduce downtime, lower switching costs during disruptions and help maintain cash-flow when grid service or street access is disrupted. The most frequently reported measures were: insurance (67.2 per cent), periodic data backups with remote access (56.7 per cent), staff evacuation plans (41.8 per cent), client and/or supplier diversification (29.9 per cent), formal emergency or self-protection plans (28.4 per cent), and keeping emergency contact lists updated (25.4 per cent). Employee awareness and training were reported by 19.4 per cent. While some reported having taken explicit measures aimed at supply chain resilience by diversifying client and supplier bases, updating emergency contact lists and training employees in first aid, most actions focus on internal continuity basics rather than upstream or downstream controls, and measures such as contractual continuity clauses, minimum stock policies and logistics contingencies remain less common.

**FIGURE 4:**  
SME familiarity with resilience practices



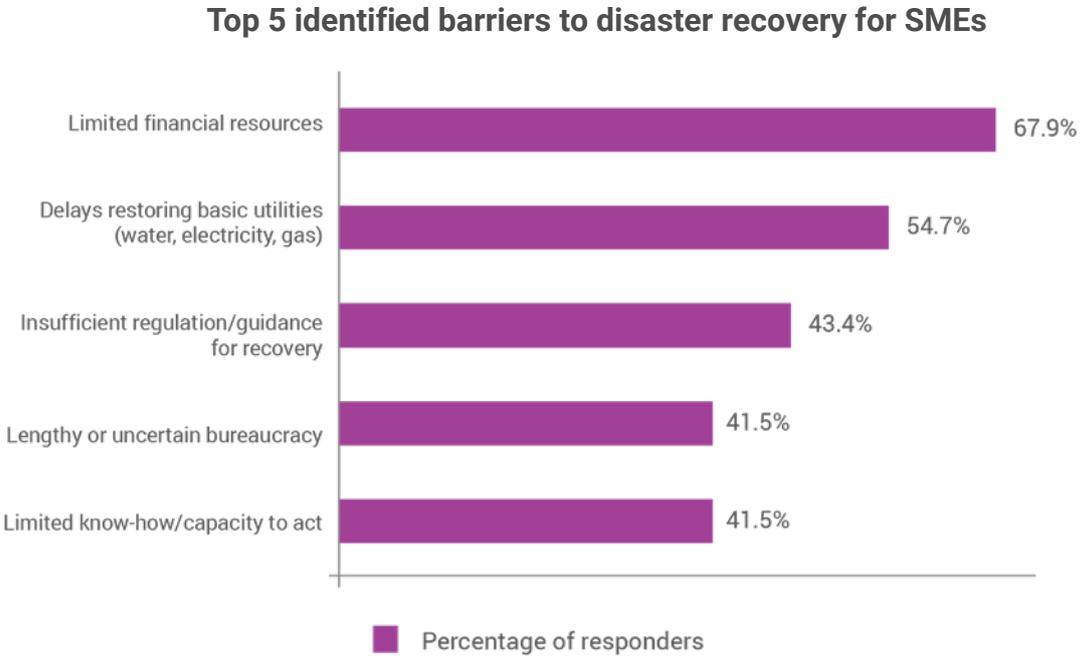
Fewer SMEs reported more advanced or infrastructure-related measures: facility or infrastructure improvements (16.4 per cent), formal risk assessments or risk matrices (16.4 per cent), or redundancy in power, water or communications such as generators or UPS (14.9 per cent). A small share of SMEs mentioned crisis drills (9.0 per cent), disaster recovery plans (4.5 per cent) or a formal BCP (3.0 per cent). Collaboration with local authorities was cited by very few respondents. Interestingly, while only 2 of the surveyed SMEs currently have a formal BCP, 32 plan to develop or update one within the next 12 months, and 26 indicated a need for support in doing so.

SMEs showed variation in how often they review or revise their plans and policies, if they existed. Several reported reviewing their plans or insurance annually, a few every three years, some noted updates as recent as 2024–2025, while a noticeable share were unsure or could not specify when their plans were last revised.

These results suggest that while SMEs take some steps to safeguard their internal operations, more comprehensive resilience measures – particularly formal planning, infrastructure redundancy and systemic risk management – remain uncommon.

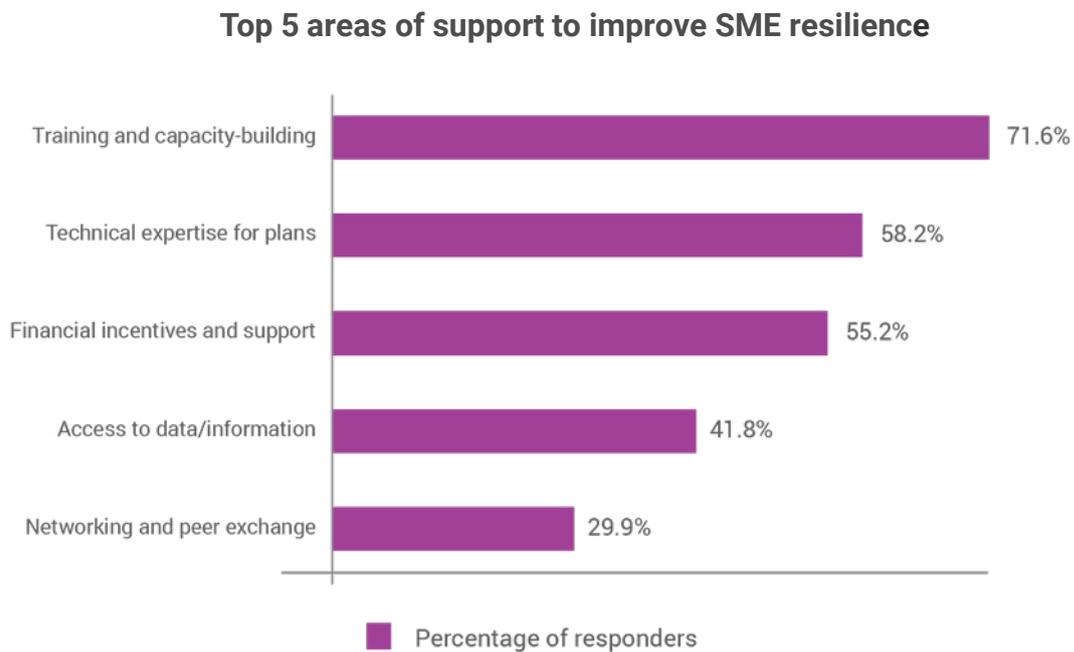
Even though many SMEs have developed basic internal continuity measures, many perceive that delays in restoring basic services have made recovery more difficult, with limited financial capacity cited as the main barrier to bouncing back more quickly.

**FIGURE 6:**  
**Identified barriers to disaster recovery for SMEs**



When asked about the most useful support for improving resilience, SMEs prioritized training and capacity-building. This was followed closely by financial incentives or aid, technical assistance in developing BCPs and opportunities for networking with similar organizations. Specifically, training and capacity-building was selected by 71.6 per cent of respondents, access to technical expertise to develop resilience or BCPs by 58.2 per cent, financial incentives or related support by 55.2 per cent, and networking and peer exchange by 29.9 per cent.

**FIGURE 7:**  
**Identified areas for supporting SME resilience**



The dimension of inclusion – ensuring that disaster preparedness and response measures address the needs of all individuals, including people with disabilities – is still emerging among SMEs. Only 16.4 per cent reported having implemented measures to support people with disabilities during disaster events, while 70.1 per cent have not, and 13.4 per cent were unsure. This indicates that while many SMEs are beginning to adopt basic disaster preparedness measures, few have integrated inclusive practices into their plans. Integrating inclusion and accessibility into business continuity planning templates and drills presents a clear opportunity to bridge this gap.

Finally, the study highlights latent demand for coordinated recovery drills. Only 14.9 per cent of SMEs have ever participated in an emergency exercise, yet 55.3 per cent expressed interest in receiving training. Barcelona’s fire brigade and civil protection service already run annual drills in schools and hospitals, and extending invitations to business districts could multiply impacts at a marginal cost.



## Existing resources and incentives to support SME resilience

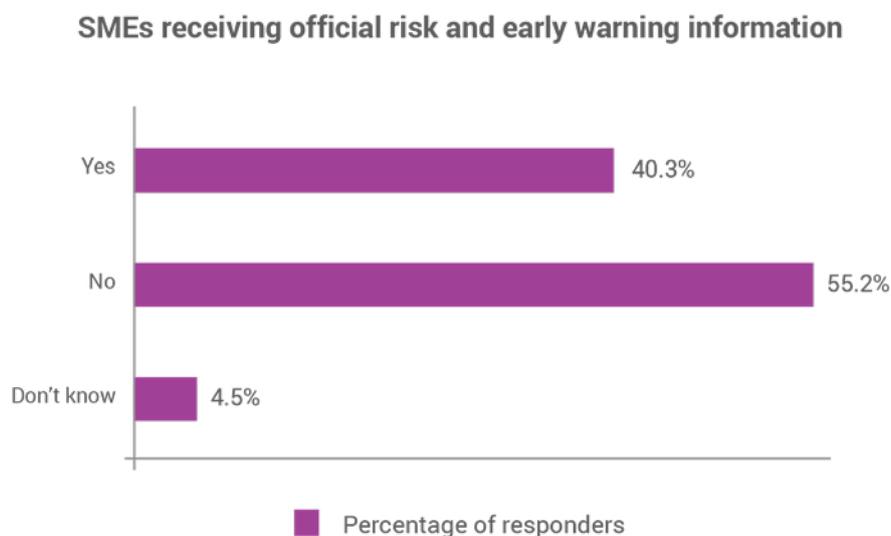
### Risk knowledge and information channels

SMEs in the Barcelona Metropolitan Area can access four authoritative sources for timely alerts and risk data. Meteocat (Catalonia's meteorological service) and AEMET (the Spanish national meteorological agency) provide severe weather forecasts and warnings. The emergency number 112 delivers incident alerts and public instructions through the ES –ALERT system. The Institut Cartogràfic i Geològic de Catalunya (Cartographic and Geological Institute of Catalonia) Civil Protection Risk Maps offer spatial hazard layers (e.g. flood, wildfire) to assess site-specific exposure. For effective business continuity, SMEs should integrate data from these sources into their business continuity planning and operations.

Knowledge of where to find official, SME-specific information is extremely limited, however. Only about 1.5 per cent of SMEs say they know where to access it, 13 per cent say they do not and the remainder left the question blank. Qualitative answers indicate that SMEs rely primarily on general public communication channels, including mass mobile alerts issued by civil protection authorities. Perceived inclusion in municipal DRR and resilience initiatives is also limited: only 10 per cent of SMEs feel they are included, 24 per cent say they are not and 66 per cent do not know.

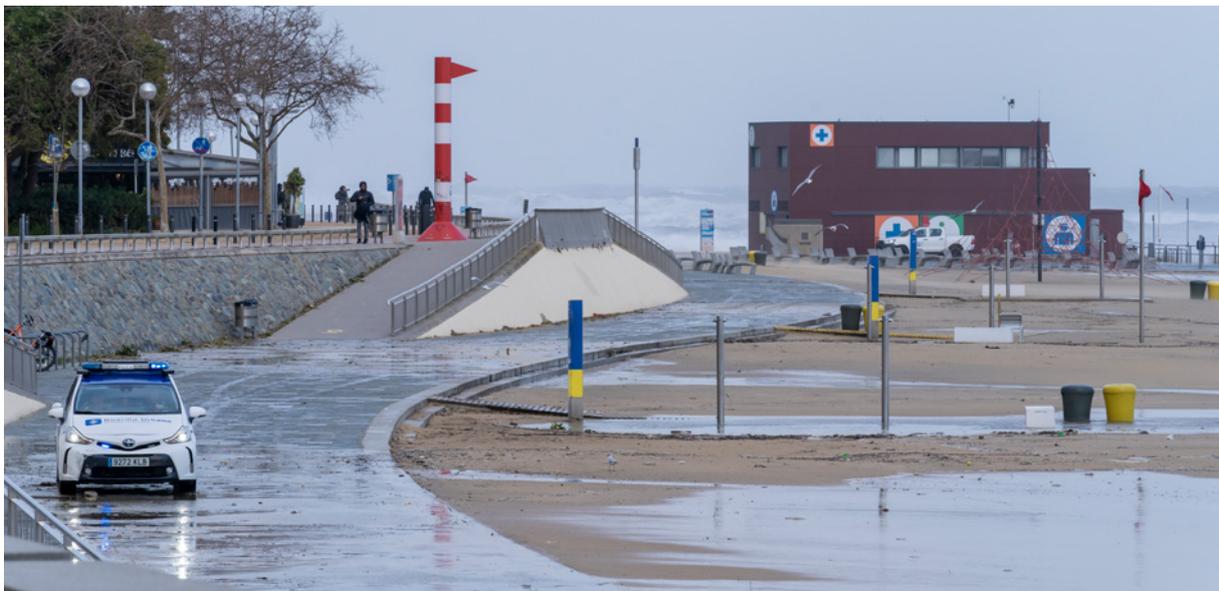
Coordination with public actors and the use of public risk information remain weak spots, limiting the effectiveness of private sector action alone. Only 40.3 per cent of SMEs report receiving official information or early warnings about SME-specific risk reduction measures and alerts, while 55.2 per cent do not and 4.5 per cent are unsure. In practice, the SMEs who do receive information are primarily exposed to general early warning systems intended for the wider population, rather than impact-based guidance tailored to businesses. This gap is further reflected in other survey responses: most SMEs do not receive preparedness or DRR guidance from local authorities (40 per cent responded yes, 55 per cent – no, 5 per cent – don't know).

**FIGURE 8:**  
SMEs receiving risk and early warning information



Taken together, the results indicate significant gaps in public information channels and guidance that support SMEs in proactively safeguarding their business resilience. While many have basic evacuation knowledge, SMEs lack clear, accessible pathways to the official information and tailored support needed for multi-hazard business continuity. Other recent local business association surveys corroborate these findings (CECOT, 2025), with SMEs calling for substantial improvements to information channels – clearer, faster communications delivered through multiple pathways to ensure timely alerts.

The Institut Cerdà produces the Observatori de Riscos per a les Empreses a Espanya (Risk Observatory for Companies in Spain), an annual report on the main threats facing businesses nationally. Professional bodies such as the Col·legi d'Enginyers de Catalunya (College of Engineers of Catalonia) and local associations promoting information security (including ISACA Barcelona, the ISMS Forum and others) also publish specialized reports on climate, technological and security risks. These materials can provide valuable insights, including to SMEs, to help organizations prioritize hazards and strengthen continuity planning. At the same time, local companies are starting to offer services such as climate risk analysis, early warning systems for extreme weather and digital platforms to support business continuity management. Uptake among SMEs, however, remains low, mainly because of costs, technical demands and the fact that many of these tools are either not tailored to the needs of smaller businesses or not yet widely known within the SME market.



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## Coordination with authorities

Only 9.0 per cent of SMEs report having coordinated with the local government or authorities on civil protection, resilience strategies or related initiatives. Training opportunities for the private sector are limited: only 13.4 per cent of surveyed SMEs have received training or similar support on resilience or business continuity planning in recent years, while 86.6 per cent have not. Despite these coordination and support gaps, SMEs show a willingness to strengthen their role in resilience planning, with 47.8 per cent indicating plans to develop or review their BCP next year, 20.9 per cent not planning to do so and 31.3 per cent unsure.

After the April 2025 blackout, CECOT, the Catalan employers' association that supports and represents SMEs in Catalonia, called for clear, predefined operating protocols and stronger coordination with utility companies and other suppliers. It also advises SMEs to install uninterruptible power supplies (UPS) and generators to keep critical equipment running, use cloud storage and perform regular data backups (CECOT, 2025).



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## Capacity-building and certifications

The Agència de Ciberseguretat de Catalunya (Cybersecurity Agency of Catalunya, ACC) and Instituto Nacional de Ciberseguridad (Spanish National Cybersecurity Institute, INCIBE) provide practical cyber incident and continuity guidance for small businesses. Business associations and professional bodies (e.g. the Col·legi de Mediadors de Barcelona, which provides insurance advice, and sectoral associations) run short courses that include elements of risk transfer and insurance, and business continuity planning. Standards-based training – notably ISO 22301 Business Continuity Management – is available through local training and certification providers. Higher education and private training courses by universities, business schools and consulting firms also offer modules on continuity and resilience, typically broad in scope and not tailored to SMEs.

## Risk transfer, incentives and funding with resilience co-benefits

As explained, no single, binding framework exists in Spain or Barcelona that would specifically address SME resilience. The lack of legislative or regulatory incentives also highlights a gap in fiscal policy: there are no national or municipal tax credits for pre-disaster mitigation, and subsidized resilience loans are limited to post-event recovery (ex-post) lines from the Instituto de Crédito Oficial (Official Credit Institute), with no existing advance (ex-ante) incentives for proactive resilience measures. Existing climate grants, for example, could be applied to resilience-related investment projects, but this financial support is primarily oriented towards helping citizens prepare for chronic stresses, rather than providing SMEs with specific resources to cope with acute shocks. Survey data highlights this shortfall: only 4.3 per cent of SMEs reported awareness of any financial incentives or regulatory requirements that could help them invest in DRR or require them to develop BCPs, 38.3 per cent believed no such incentives exist and 57.4 per cent were unsure.

Nonetheless, SMEs in the Barcelona Metropolitan Area can draw on several public support mechanisms at the regional, national and European level, including mutual guarantee societies, digitalization agencies, enterprise competitiveness programmes and EU funding schemes. These mechanisms typically provide SMEs with guarantees, grants or small vouchers aimed at finance, innovation or digital transformation, and while not designed as disaster risk management tools, they could be applied in some cases to resilience-building investments, such as backup power, water-saving systems or continuity planning support.

On the public side, the Consorcio de Compensación de Seguros (Insurance Compensation Consortium, CCS) is the Spanish catastrophe risk insurance pool, which automatically covers SMEs against extraordinary events such as floods or major storms through a small surcharge on standard policies. It provides a reliable financial safety net, helping businesses recover faster after severe disasters.

Alongside these mechanisms, the private sector offers a wide range of financial instruments and risk transfer products, including multi-risk insurance. Other commercial financing and insurance products are also available to support SMEs' resilience and risk management needs.

## **Additional opportunities to support SME resilience**

These findings strongly suggest that the SME sector is prepared to take a more active role in resilience efforts, provided they are offered structured training, practical support and technical assistance, along with financial incentives to encourage actions towards resilience.

The near-term opportunity lies in transforming the foundation of practical steps into structured continuity practices and connecting SMEs to public systems, helping to scale up their resilience actions. The data support the development of a proposed SME-focused resilience support programme that meets SMEs where they currently stand. Training modules should move beyond theory and concepts to basic practical steps that can boost SMEs' resilience, such as assigning roles and responsibilities, creating emergency contact trees, using simple process prioritization worksheets or developing service failure playbooks tailored to local hazards like heatwaves, drought, cyber incidents, and power or service outages. Technical assistance should help SMEs adapt these tools to their dependencies on critical infrastructure and services, including electricity, telecommunications, water and logistics, as these areas offer the greatest returns on continuity efforts. Given that few SMEs currently coordinate with authorities or receive official alerts, the programme or initiative should also establish a communication channel to deliver early warnings and municipal guidance in a clear, impact-based and actionable format.

SMEs need targeted financial incentives to adopt measures that meaningfully improve resilience. Some actions involve upfront costs, such as purchasing a reliable UPS, setting up secure data backups, making building upgrades that reduce heat exposure or water use, or selecting suitable insurance or risk-sharing options. Other actions, like drafting a BCP, are lower cost. Support from the government or insurance sector could help SMEs to implement these measures. When combined, such support would enable SMEs to move from isolated, basic steps to a coordinated approach that reduces operational downtime, protects revenue and strengthens community resilience during shocks.

## An emerging local ecosystem

After the late-2024 DANA floods, the April 2025 Iberian blackout and a severe wildfire season, new SME resilience efforts have taken shape in the Barcelona Metropolitan Area. UNDRR, Barcelona City Council, Barcelona Chamber of Commerce, Barcelona Comerç, Sant Boi de Llobregat City Council, the Associació Catalana de Facility Management (Catalan Facility Management Association, ACFM), AGERS (the Spanish Risk Management and Insurance Association) and IQS School of Management have worked together to support SMEs to enhance their resilience planning, including through the development of BCPs. Local stakeholders have also started developing new services tailored to SMEs.

Joint activities in 2025 included online and in-person awareness-raising workshops, hands-on training and the development of practical BCP templates and guidance including crisis simulations. Barcelona Comerç, Sant Boi de Llobregat City Council, Barcelona Chamber of Commerce and ACFM demonstrated their commitment to strengthening SME resilience by inviting SMEs to develop BCPs with the support of UNDRR. As a result, many SMEs in the commerce and tourism sectors have started their BCP development.

Taken together, these actors are emerging as the local ecosystem supporting SME resilience.





# RECOMMENDATIONS FOR IMPROVING SME RESILIENCE

Building on the analysis above, this section provides a set of actionable recommendations targeted at national, regional and local government and municipalities, SMEs, business networks and chambers of commerce, industry associations, and other public and private stakeholders. These recommendations aim to inform policies and practices to further strengthen the disaster resilience of SMEs in Barcelona, including through supporting business continuity planning and creating an enabling environment where resilience becomes part of standard business practices.



## Governance and inclusion of small and medium-sized enterprises

- Integrate SMEs into decision-making processes. Create an SME Resilience Working Group under the city's resilience committee that includes at least chambers of commerce, industry/sector associations and small businesses. Invite SMEs to take part in city-wide and metropolitan crisis exercises – e.g. stress testing or simulation exercises could be developed, inspired by Paris's 2023 "Paris at 50 °C" exercise (Ville de Paris, 2023). Embedding SME associations into the dissemination chains of early warning systems would also allow them to take early action to reduce damages and losses.
- Reward basic preparedness. Require BCPs as a prerequisite for grants, public procurement or local tax rebates. Encourage large buyers to request basic, risk-proportionate BCPs.
- Build an SME resilience community. Set up an SME resilience network for peer-to-peer learning and two-way communication with the city. Encourage major business associations to designate resilience focal points.
- Coordinate with essential services. Meet regularly with electricity, water and telecommunications operators to share outage protocols, restoration priorities and business contact channels.
- Monitor progress. Task city and business networks with conducting short annual SME surveys (with gender-disaggregated data) to track BCP uptake and support needs, and adjust programmes accordingly.



## Knowledge and practical tools

- Publish simple BCP tools and risk maps. Continue providing basic, city-endorsed BCP templates and checklists for SMEs, including micro-enterprises. Issue plain-language neighbourhood risk maps with suggested actions. Leverage the International Day for Disaster Risk Reduction (13 October) to further raise awareness.
- Offer short, modular training. Continue running practical courses on developing, testing and upgrading BCPs. Consider developing additional sectoral supplements or other sector-specific guidance (i.e. specific training on best practices for crisis management in hospitality etc.).

- Provide technical support. Organize BCP clinics on commercial streets and markets (i.e. bring support to micro- and small businesses rather than expecting them to seek out what they can find), supporting quick drafting of basic BCPs (maximum one hour) with light follow-up mentoring. Make schedules and materials accessible and inclusive.
- Ensure tools are available and easily accessible. Maintain an updated SME tool catalogue (early warning integrations, light risk analytics, digitized BCPs, continuity apps) and share it through business networks.
- Recognize efforts. Create a voluntary Resilient Business scheme/seal for SMEs that complete a basic BCP and implement critical DRR and resilience efforts, managed by business associations with the city's endorsement.



## Finance, insurance and risk transfer solutions

- Bundle existing support. Create a simple resilience menu that includes information about grants, enterprise and digital vouchers, mutual guarantee support and public finance lines with clear use cases (backup power, water-saving kits, flood barriers, cloud/continuity IT, etc.).
- Improve access to funding. Develop low-interest resilience loans and guarantee schemes. Link eligibility to completion of basic training or resilience measures.
- Use insurance to protect continuity. Promote property and business interruption (with CCS), flood add-ons, cyber insurance, trade credit/CESCE (Spanish Export Credit Agency) and parametric covers. Expand group schemes via associations and collaboration with insurance brokers. Work with insurers to make a basic BCP a prerequisite for selected premium credits or enhanced cover options.
- Share resources that reduce disruptions. Pilot shared assets (e.g. generators, pumps) managed by the city or cooperatives. Support group purchasing of resilience equipment.



## Innovation and partnerships (Tech4DRR)

- Pilot SME-ready tools. Test SME-focused early warning systems, light risk analytics, digitized BCPs and mobile continuity apps.
- Document and scale good practices. Publish brief summaries that highlight solutions and services which (a) improve SME access to information and knowledge and (b) enable SMEs to take concrete action. Prioritize scaling options with demonstrated uptake and impact.
- Create a cluster pathway. Explore a Tech4DRR cluster within regional cluster policy, align with city economic promotion and co-fund adoption across SME value chains.

**TABLE 2:**  
**Suggested roles and responsibilities**

| <b>ACTOR</b>                                 | <b>GOVERNANCE AND INCLUSION</b>                                     | <b>KNOWLEDGE AND TOOLS</b>  | <b>FINANCE AND RISK TRANSFER</b>   | <b>INNOVATION AND PARTNERSHIPS</b>               |
|--|---|---|--|--|
| <b>National/<br/>Regional<br/>Government</b> | Set policy and incentives; include SMEs in DRR governance           | Endorse simple BCP templates and guidance                                       | Provide public finance lines, guarantees, tax rebates; signal insurer incentives             | Support clusters; scale-proven pilots            |
| <b>Municipality<br/>(City/AMB)</b>           | Create SME working group; include SMEs in drills                    | Publish city BCP templates; neighbourhood risk maps; run BCP clinics            | Offer local grants where possible; signpost programmes                                       | Run city pilots; use procurement to boost uptake |
| <b>Chambers and Associations</b>             | Give SMEs a voice; run an SME resilience network; name focal points | Awareness, short training, sector guides; peer mentoring; keep an SME tool list | Point to grants/loans/insurance; group schemes; shared assets                                | Broker pilots; connect firms to providers        |
| <b>SMEs</b>                                  | Take part; name a resilience contact                                | Adopt a BCP; train staff; use official alerts                                   | Use grants/loans/insurance; keep contingent liquidity  | Test simple tools; share lessons                 |
| <b>Large Companies/<br/>Buyers</b>           | Involve SME suppliers in exercises                                  | Share supplier BCP templates/minimums   | Ask for basic BCP/mitigation in procurement  | Co-develop solutions with SME vendors            |
| <b>Utilities/<br/>Critical Operators</b>     | Maintain contact and protocols with SMEs                            | Publish outage/restoration playbooks  | –  | Join drills; share data on planned works         |
| <b>Financial Institutions/<br/>Insurers</b>  | –   | Offer advisory clinics to SMEs  | Provide resilience loans/guarantees; CCS-backed property+BI, cyber, trade credit, parametric | Innovate products with chambers/city             |
| <b>Tech Firms/<br/>Academia</b>              | –   | Produce simple tools and training for SMEs                                      | –  | Run Tech4DRR pilots; join clusters               |

# CONCLUSION

The Barcelona region faces an array of risks, from increasingly intense heatwaves and storms driven by climate change to pandemics, blackouts and other disruptions. The creation of a Municipal Resilience Committee, as well as Barcelona's designation as a MCR2030 Resilience Hub, reflect the city's strong political commitment to manage these risks. Yet most SMEs lack a formal business continuity culture and remain ill-prepared to reduce and withstand these shocks.

Implementing the recommendations outlined in this report can help to translate Barcelona's high-level resilience ambitions into tangible benefits for its business community and, by extension, for society as a whole. This study found that resilience-building is both feasible and useful, even for micro- and small enterprises, and confirms that strengthening SME resilience is not only an economic necessity, but a critical element of broader urban resilience. The failure of small businesses can significantly hinder the city's capacity to respond to or recover from disasters, whereas resilient SMEs can serve as active partners providing key services to support response and recovery efforts.

The absence of incentives explicitly designed for SME resilience presents an opportunity to adapt and repackage existing programmes, while also designing new interventions guided by SME priorities and experiences. Following a multi-hazard and multi-stakeholder approach to building resilience, in alignment with the Sendai Framework for Disaster Risk Reduction 2015–2030 and wider SDGs, it will be key for government departments – including those with responsibility for economic development, emergency management and climate adaptation – to collaborate closely, while fostering strong partnerships with business associations, academia and other stakeholders.

In conclusion, Barcelona's resilience journey will remain incomplete unless it fully integrates its SMEs. Through coordinated leadership, cross-sector collaboration and the measures proposed in the report, Barcelona can help to ensure that when the next disaster strikes, businesses are better prepared, economic losses are reduced and communities bounce back faster and stronger. These efforts will allow alignment with all-of-society engagement in DRR and offer the opportunity to serve as a global example of building resilience from the ground up.



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