



With the contribution
of the LIFE financial
instrument of the
European Community



LAYMAN'S REPORT



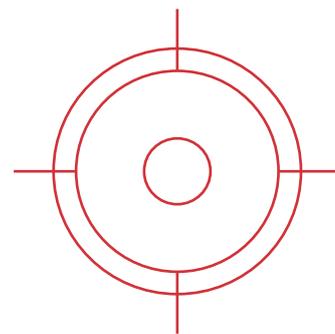
DERRIS

Climate is changing.
Reduce your risks.

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The DERRIS project



The problem



The response

Italy is one of the European countries most **vulnerable** to climate change. Floods, heavy rainfall, landslides, heat or cold waves (and other weather conditions) are intensifying, thereby increasing Italy's risks.

Eighty-eight percent of Italy's municipalities are found in areas considered at high hydrogeological risk, with almost 7 million people living and working in these areas. At the same time, there are 1,642,165 businesses exposed to flood risk in these areas.

The greater number of weather events we are witnessing with increasing frequency have particularly significant effects on small and medium-sized enterprises (SMEs). The damage caused by these disasters has serious repercussions on the economic stability and growth of the affected areas.

In Italy, SMEs do not have adequate tools for assessing and managing these phenomena.

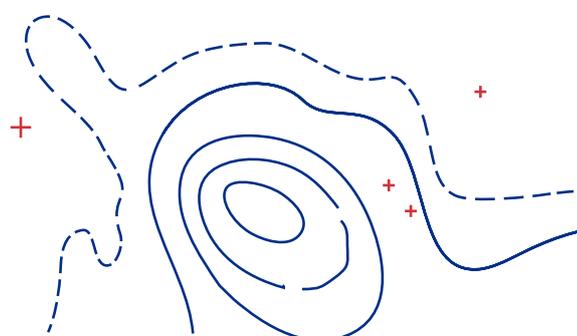
At the same time, Italian SMEs lack awareness of the risk. Italy is one of the countries where the impact of extreme weather events on their businesses is most underestimated by companies.

The LIFE DERRIS (Disaster Risk Reduction Insurance) project, led by Unipol Group together with the partners ANCI, CINEAS, City of Turin, Coordinamento Agende 21 Locali Italiane and Unipolsai, developed between September 2015 and September 2018.

DERRIS is the first European project that combines public administration (PA), businesses, and insurers to reduce risks caused by exceptional climatic events.

The project objectives were to:

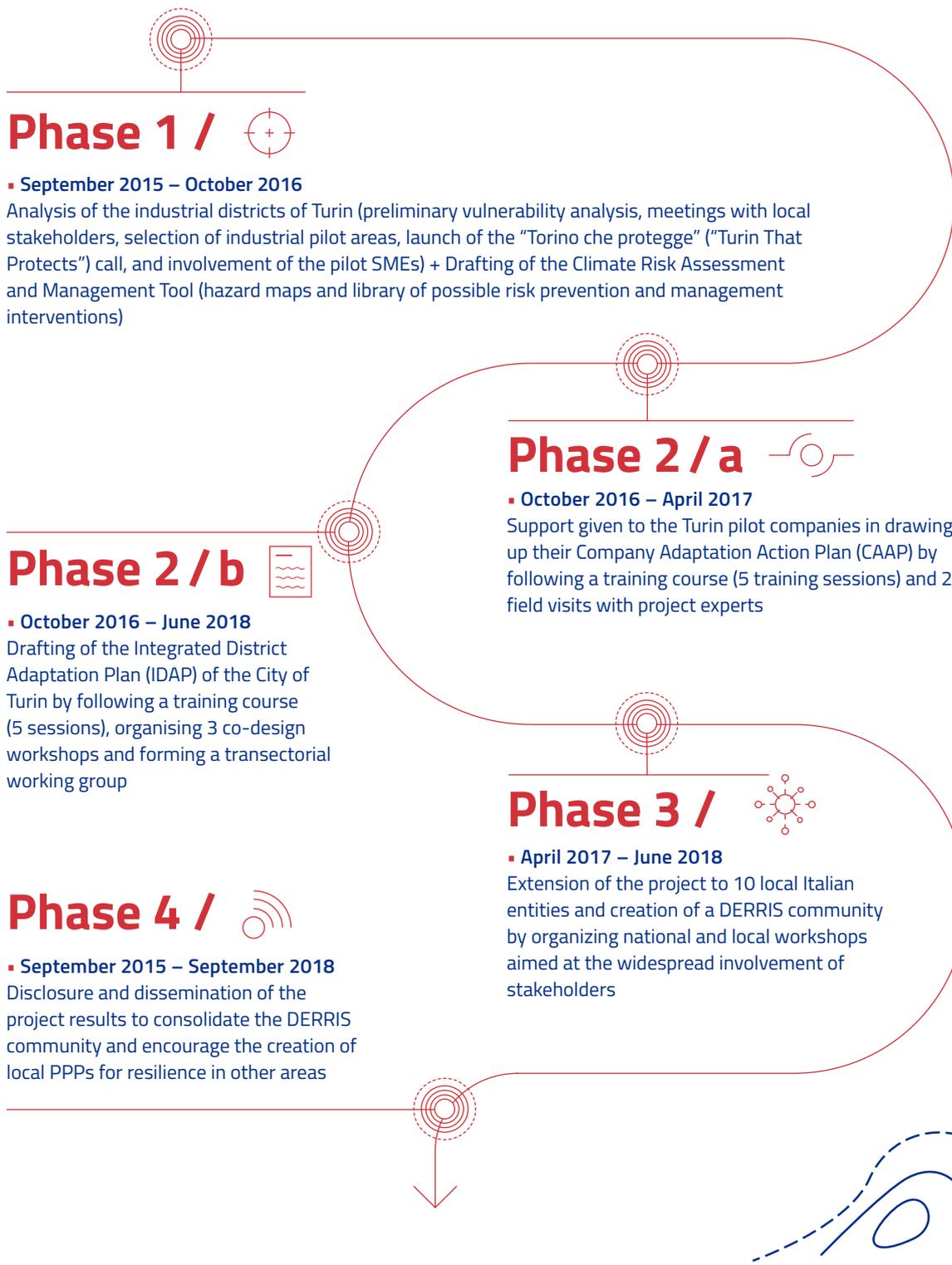
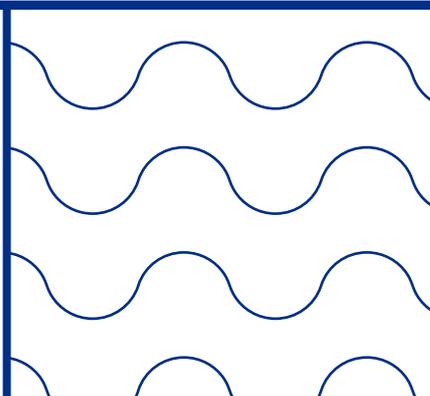
- **Test and implement innovative forms of public-private partnerships** between insurers, PA and businesses to augment the resilience of local communities
- **Promote greater risk culture**, by transferring knowledge from the insurance sector to the PA and SMEs
- **Make adequate climate risk prevention and management** tools available to the SMEs
- **Study innovative financial instruments** that can mobilize capital dedicated to reducing risks



The total budget of the project was €1,317,166,

of which **60% was funded by the European Community**, amounting to €790,299.

The phases of the project



Phase 1 /

▪ September 2015 – October 2016

Analysis of the industrial districts of Turin (preliminary vulnerability analysis, meetings with local stakeholders, selection of industrial pilot areas, launch of the “Torino che protegge” (“Turin That Protects”) call, and involvement of the pilot SMEs) + Drafting of the Climate Risk Assessment and Management Tool (hazard maps and library of possible risk prevention and management interventions)

Phase 2 / a

▪ October 2016 – April 2017

Support given to the Turin pilot companies in drawing up their Company Adaptation Action Plan (CAAP) by following a training course (5 training sessions) and 2 field visits with project experts

Phase 2 / b

▪ October 2016 – June 2018

Drafting of the Integrated District Adaptation Plan (IDAP) of the City of Turin by following a training course (5 sessions), organising 3 co-design workshops and forming a transectorial working group

Phase 3 /

▪ April 2017 – June 2018

Extension of the project to 10 local Italian entities and creation of a DERRIS community by organizing national and local workshops aimed at the widespread involvement of stakeholders

Phase 4 /

▪ September 2015 – September 2018

Disclosure and dissemination of the project results to consolidate the DERRIS community and encourage the creation of local PPPs for resilience in other areas

Project figures

Involvement

6/ **Project partners:**

2 from the insurance sector
3 public
1 academic

11/ **Local bodies involved**
in implementing the project

46/ **Informed local entities**

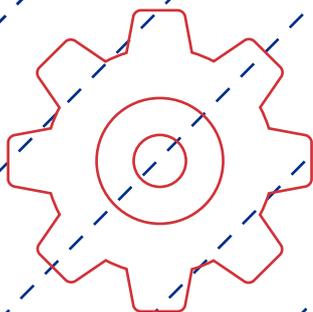
549/ **Stakeholder** encountered
at the national and local workshops

153/ **Training hours**

provided to a total of **268** participants

98/ **Resilient companies**

involved in the initial testing in the Turin pilot project and in the 10 local entities of the DERRIS Community



Tools

1/ **Cram tool**

Climate Risk Assessment and Management Tool

2/ **Web training sessions**

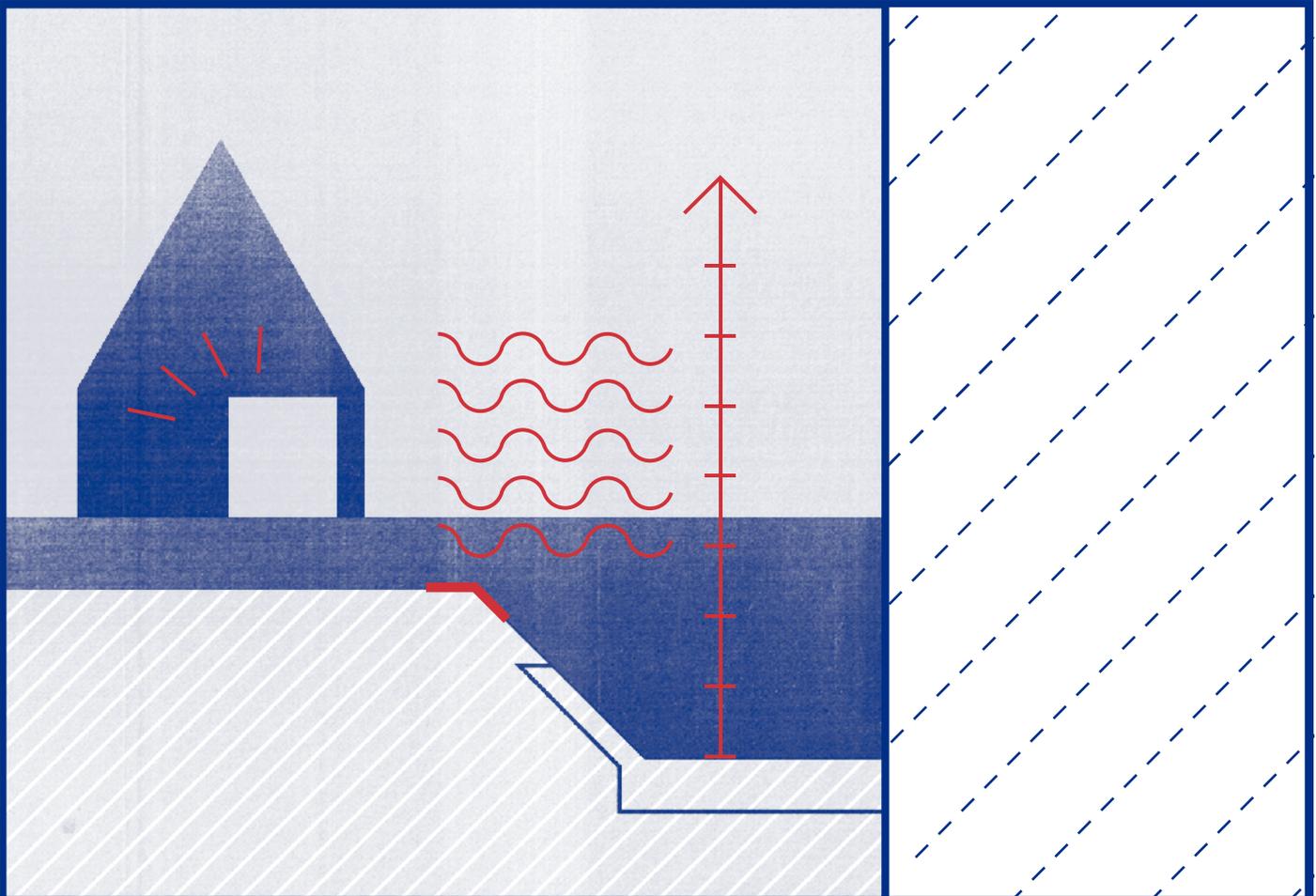
with 2 e-books on risks associated with climate change and on risk and emergency management

1/ **IDAP**

Integrated District Adaptation Plan, for the City of Turin

97/ **CAAPs**

Company Adaptation Action Plans



Dissemination

2704/ Users

have used the CRAM tool

2385/ People

have viewed the project video material

4633/ Visitors

website visitors

549/ Participants

national and local workshop participants, **127** event participants

Replicability and advocacy

1/ Guidance

> for public bodies

1/ Guidance

> for the insurance and financial sectors

Networking

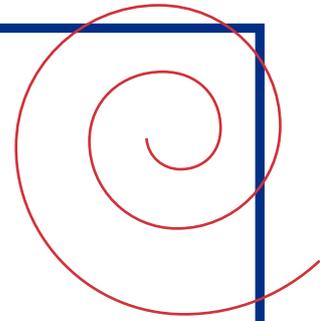
3/ Meetings

> networking meetings

17/ Projects

> reviewed

Public-private partnership

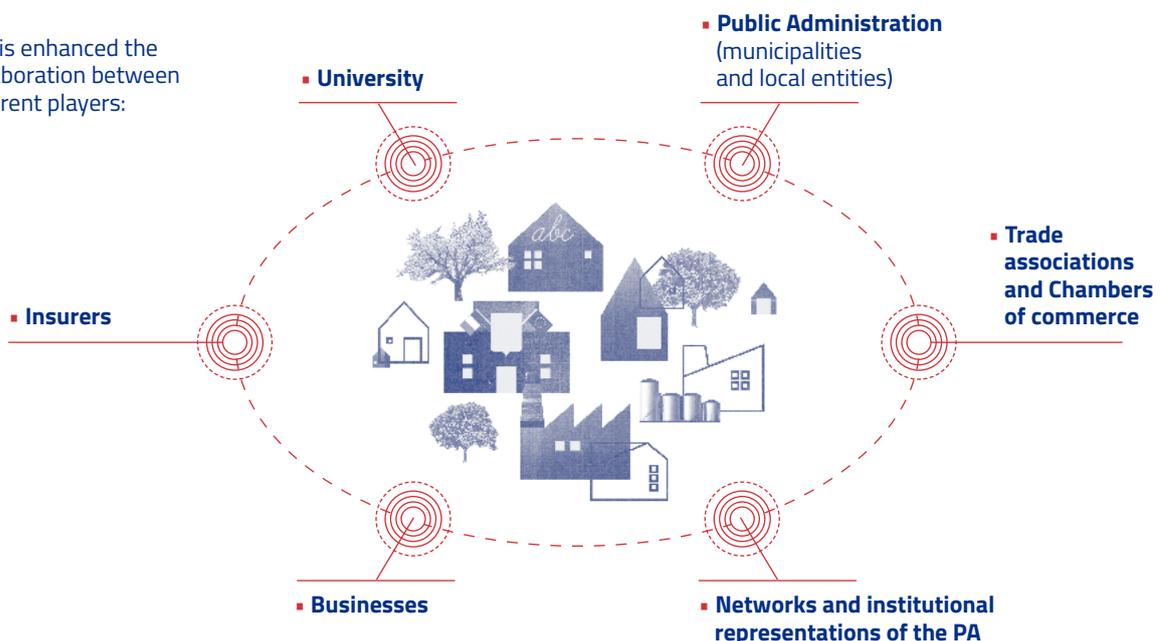


The DERRIS project tested and implemented innovative forms of local partnerships between the public administration, insurers and enterprises with the aim of increasing the resilience of local communities.

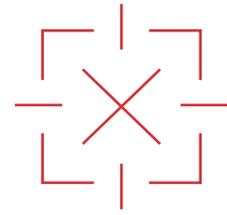
The increased intensity and frequency of extreme weather events has made it necessary to develop natural disaster prevention and management models that are shared by public and private players.

To facilitate SME involvement, the project developed an extensive model of stakeholder involvement at the local level.

Derris enhanced the collaboration between different players:



Turin pilot



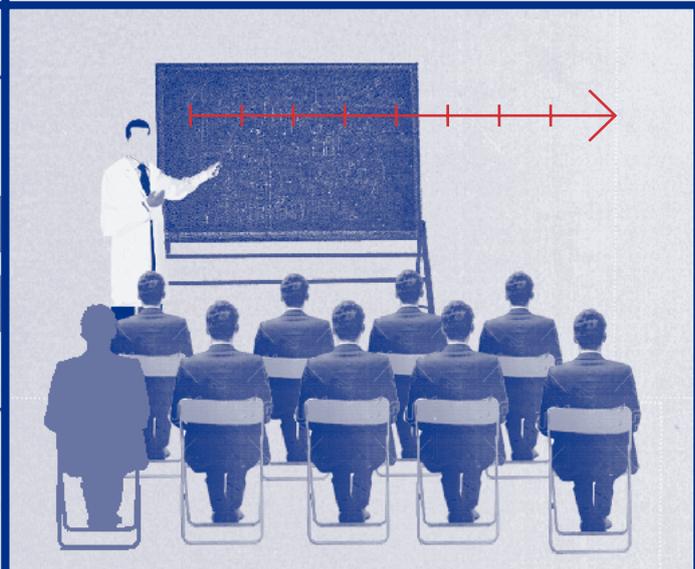
The pilot version of the DERRIS project came to life in the city of Turin, which launched a call entitled "Torino che protegge" ("Turin That Protects") in April 2016. The 30 SMEs scattered over 6 identified areas were selected in September 2016 and took part in the initiative. The companies participating in the pilot attended 5 training sessions from October 2016 to March 2017 and received free technical support from the project experts, specifically:

Assessment

> An assessment of their vulnerability to weather events with two field visits to identify the potential risks to which the company is exposed and the measures that can be taken to reduce the risk

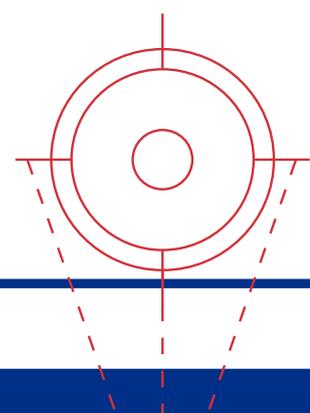
Training

> A training course aimed at acquiring useful skills in risk and emergency prevention and management

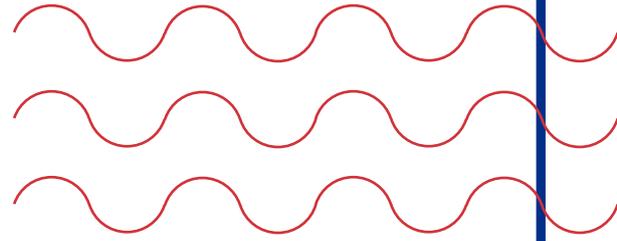


These steps contributed to the development and testing of the functions and content of the **Climate Risk Assessment and Management Tool (CRAM tool)**.

The ultimate objective of the testing was to guide the participating SMEs in drafting their Company Adaptation Action Plan (CAAP). 28 CAAPs containing an average of 20 actions were drawn up.



The CRAM Tool



The project developed a simple and immediate tool that helps SMEs understand the risks to which they are exposed in the case of extreme weather events, and what solutions could be applied in their companies to prevent damage.

Finalised during the pilot testing carried out in Turin, the tool was further tested on the SMEs involved in the 10 additional cities that decided to join the project.

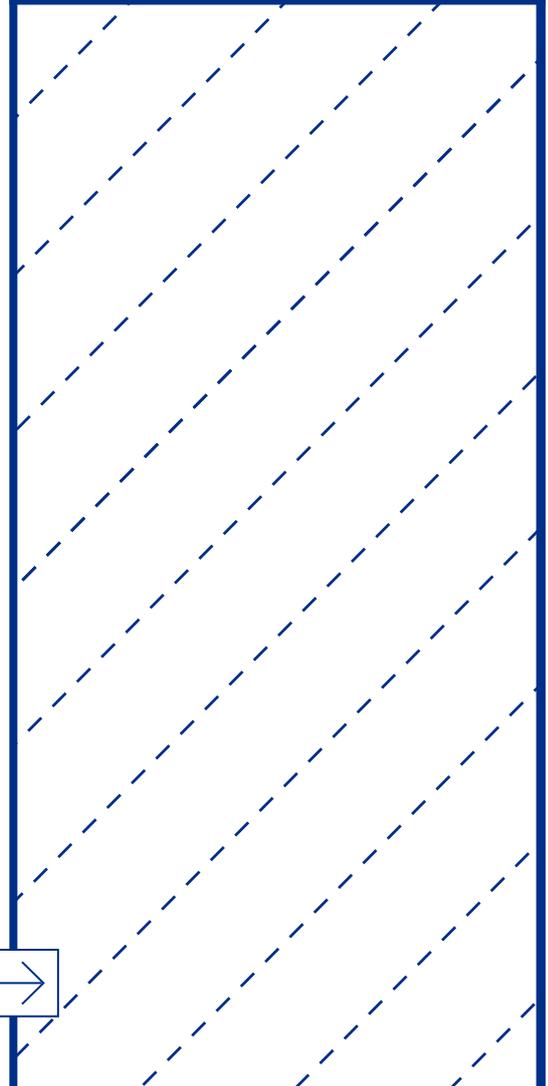
The CRAM tool provides the company with information on the hazard level for the area in which the building under analysis is located.

Afterwards, the company is asked to fill in a questionnaire whose purpose is to determine the level of the company's vulnerability to each of the climate perils analysed by DERRIS (flood, rain, wind, hail, lightning, temperature, landslides) and to analyse 2 additional issues: water efficiency and resilience.

Based on the answers given by the company, the tool assigns the company a risk index for each of the 7 weather events and selects a set of suggested actions to prevent and manage the risk and emergencies.

Lastly, the tool provides the company with its current resilience index and its potential resilience index (that is, what the index would be if the company were to implement the interventions in its company adaptation action plan).

After the questionnaire is filled in, the tool automatically generates a Company Adaptation Action Plan (**CAAP**).



7 Climate perils



Flood



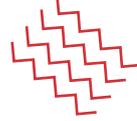
Lightning



Rain



Hail



Landslides

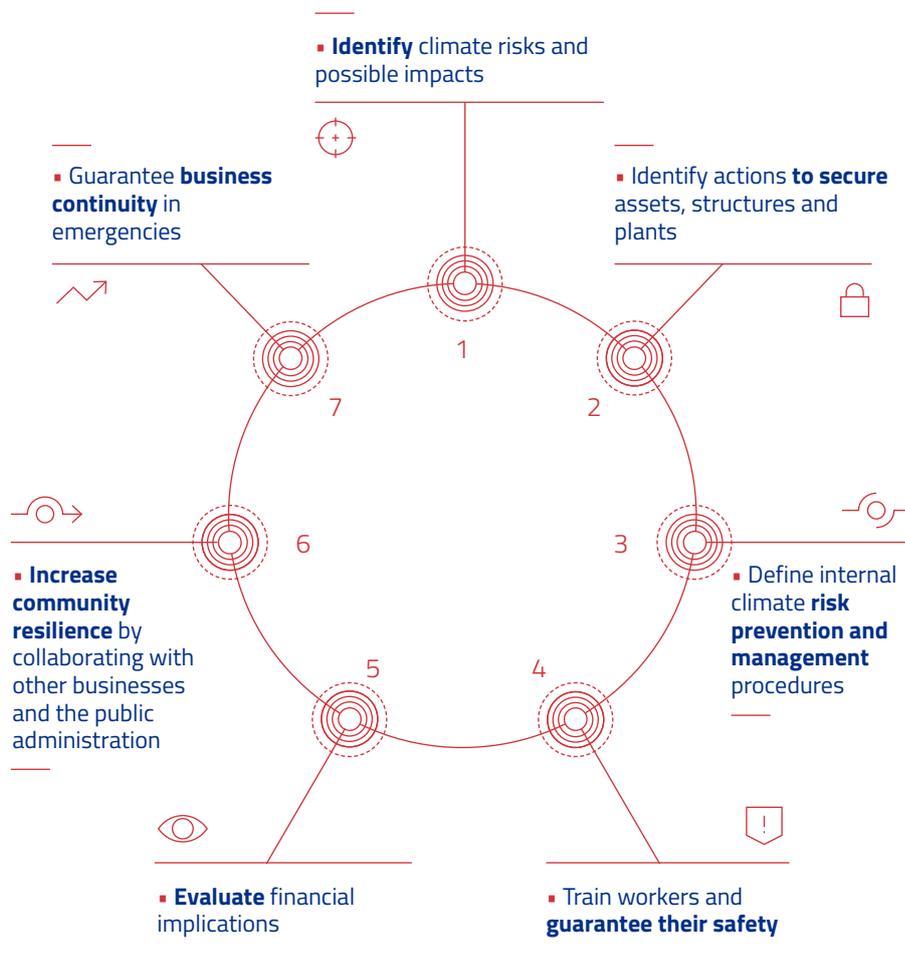


Wind



Temperatures

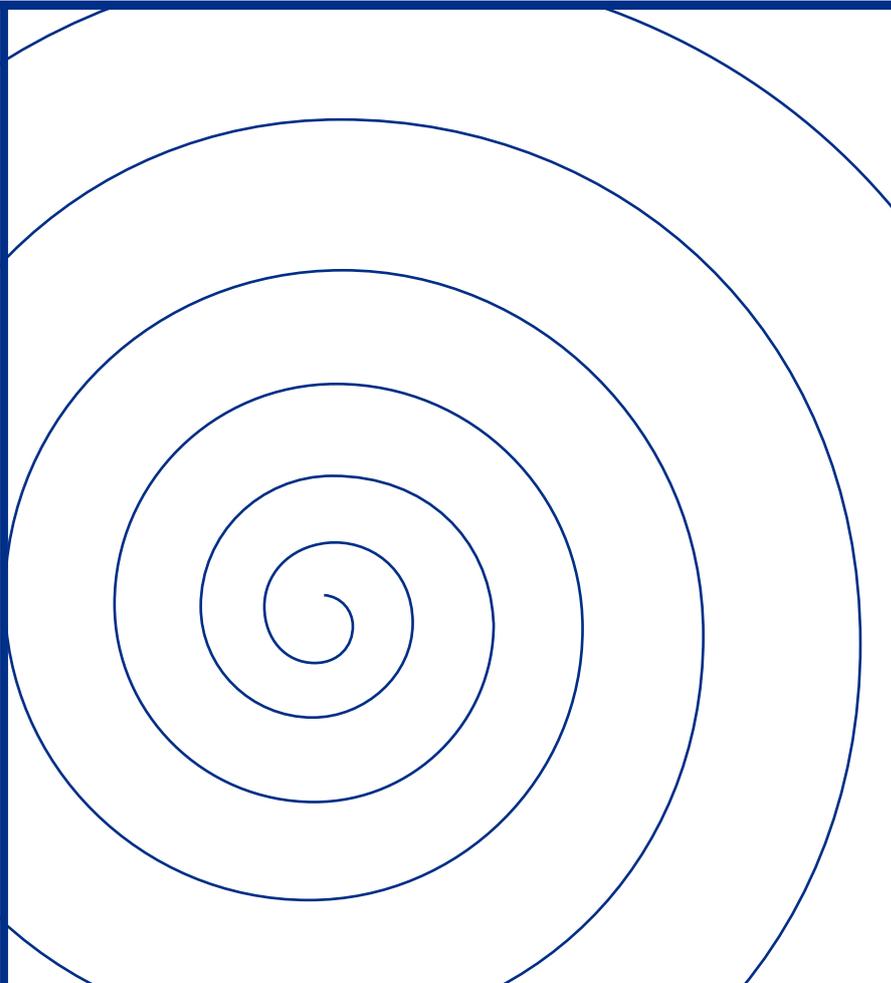
Resilience is the capacity to absorb disturbances while maintaining the same structure and operating procedures, the capacity to self-organise and adapt to stress and change.



Resilience index



Transferring knowledge on risk prevention and management



The lack of a risk culture and awareness of the impacts of climate change on production activities is a formidable obstacle in increasing the resilience of SMEs and of local communities in general.

For this reason, a key goal of the DERRIS project was to transfer technical knowledge by organizing training activities.

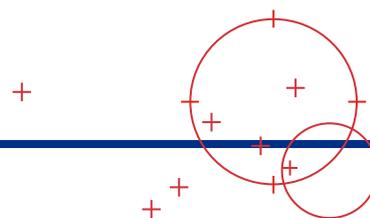
The project's training course was designed for two categories of participants: SMEs and the Public Administration.

	SMEs	PA
Training objective	<ul style="list-style-type: none"> > facilitate the understanding of climate risks to which SMEs are exposed > allow SMEs to understand which steps they can take to prevent and manage these risks in order to reduce any interruptions to their business <p>Thus, the training prepared participants to fill in the CRAM tool and provided in-depth information to guide entrepreneurs in selecting the actions to include in their CAAPs</p>	<ul style="list-style-type: none"> > Increase the awareness within the various areas of local bodies on the expected impacts of weather changes on the city > Increase awareness of adaptation measures that can be used in the various action programmes of the municipalities and of those that can be implemented by the companies <p>One basic element of the PA training was improving transectorial communication on the topic of climate change, and hence on preventing and managing risks</p>
Issues addressed	<ul style="list-style-type: none"> > Risks tied to the 7 climate perils considered by the project (flood, rain, landslides, hail, wind, lightning and temperature) > Risk and emergency management > Risk mitigation interventions > Business continuity management 	<ul style="list-style-type: none"> > Climate change; > Risk management in PA; > Emergency management; > Needs of companies and the PA's role; > Adaptation planning

To facilitate replicability of the project and spread awareness of the project to the largest possible number of Italian SMEs, DERRIS created a web training made up of two training sessions (short videos and e-book) on risks associated with climate change and on managing risk and emergencies.

www.derris.eu/valuta-il-rischio/toolkit-per-le-impres/

What is risk?



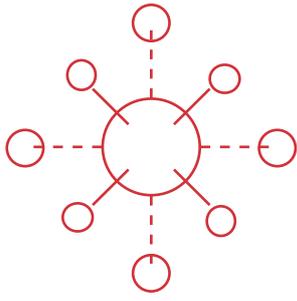
Risk is the combination of 3 factors:

- + **hazard**
- + **vulnerability**
- + **exposure**

$$R = H \times V \times E$$

Hazard is the likelihood that an event will take place; **vulnerability** is an asset's propensity to suffer damage. Lastly, **exposure** is the economic value of the asset.

How can we reduce risk? By acting on one of the risk factors, for example vulnerability (through risk prevention and management interventions in businesses).



The DERRIS community

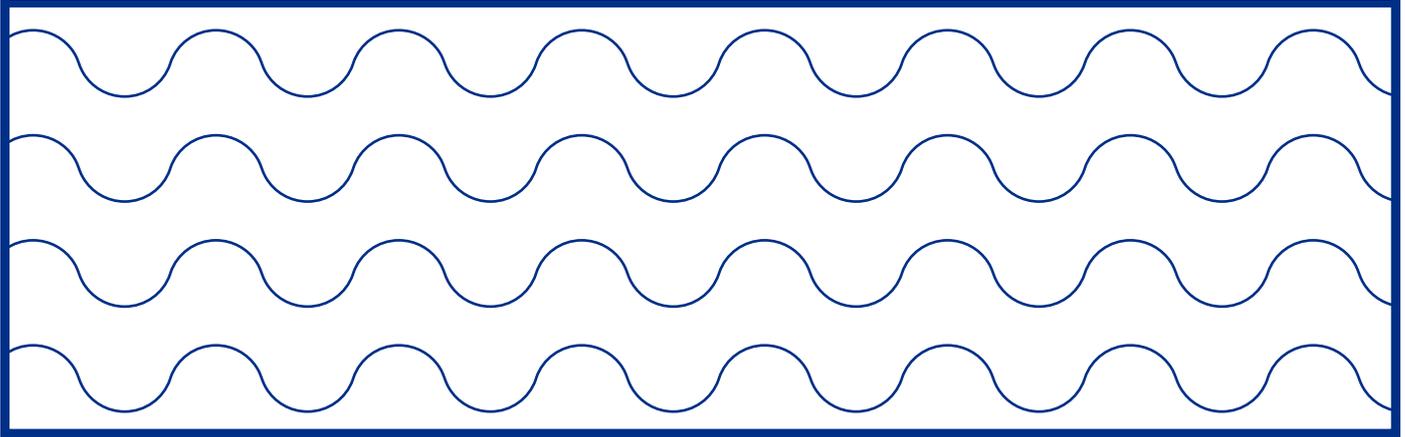
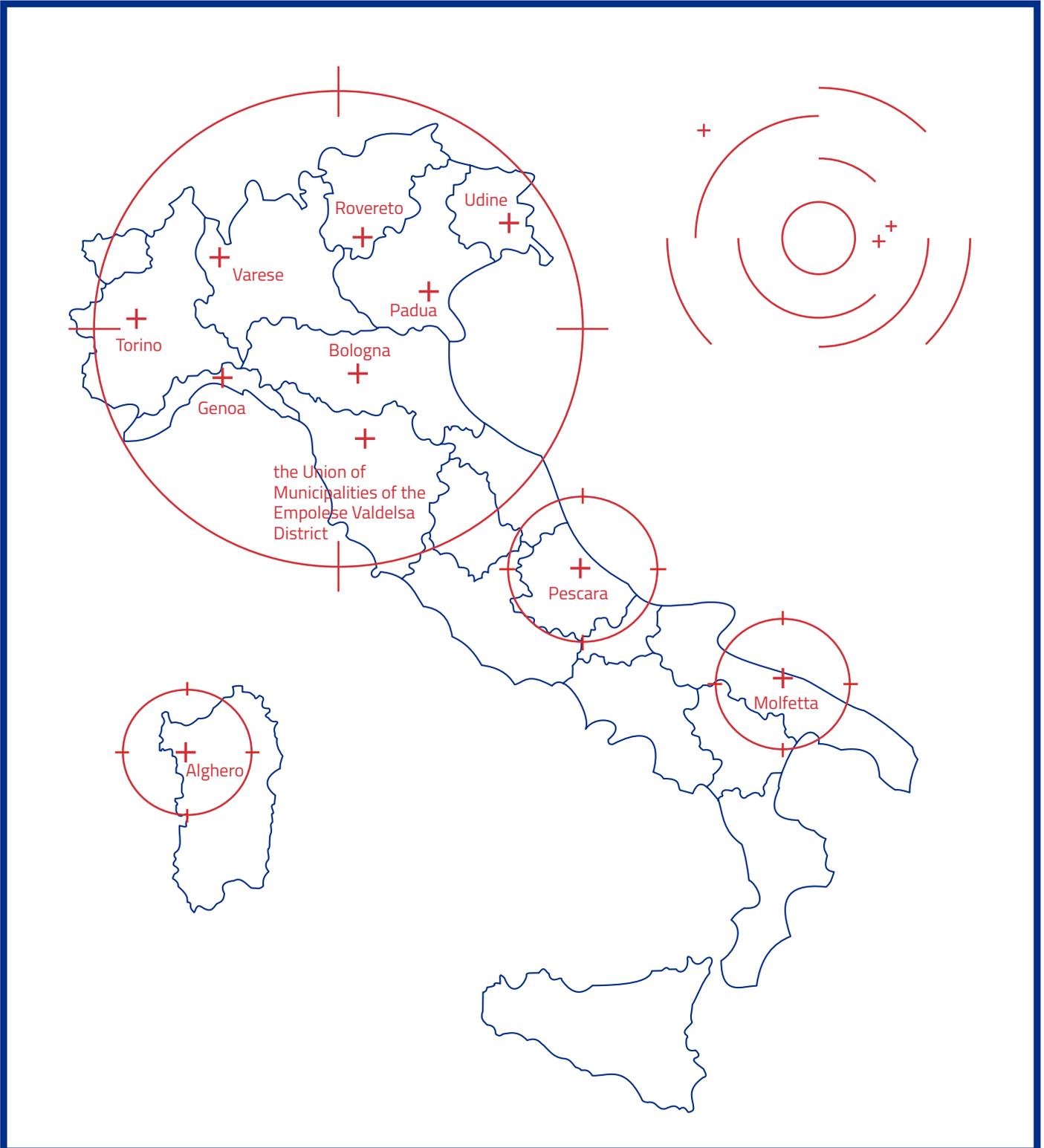
Following the pilot project carried out in Turin between October 2016 and April 2017, the DERRIS project replicated the testing in 10 more local entities.

The objective was to allow the largest number of Italian SMEs to identify the major climate risks to which they may be exposed and to define the possible actions to manage risks and emergencies. The DERRIS Community was therefore made up of a first group of 10 local entities that joined the project with the commitment to work together with the SMEs to reduce risks, minimize the consequences of weather events and increase the safety of the city and of its citizens. Through a **call entitled "Il Comune che protegge"**, ("The Municipality That Protects") launched in **April 2017**,

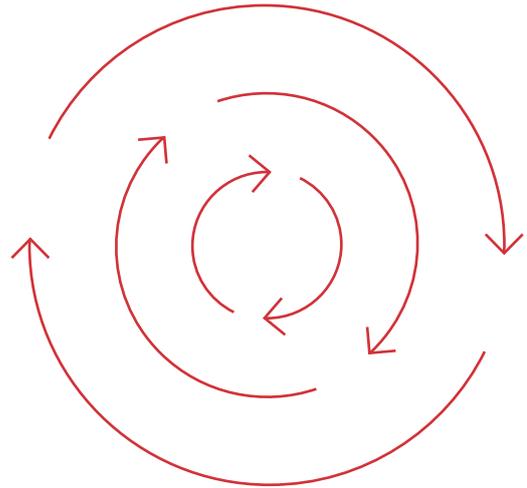
Genoa, Varese, Padua, Bologna, Pescara, Molfetta, Udine, Rovereto, Alghero, Pescara and the Union of Municipalities of the Empolese Valdelsa District

expressed their interest in joining the DERRIS Community.

The DERRIS Community also expanded by launching a specific campaign entitled "L'Intervallo" ("The Interval") on social media (in particular, LinkedIn), with the aim of reaching a largest possible number of SMEs throughout Italy.



Financial tools for adapting to climate change



From the Paris Agreement on the occasion of COP 21 to the One Planet Summit held in December 2017, including the works carried out by the High-Level Expert Group on Sustainable Finance (the group of experts tasked by the European Commission to draw up a strategy for developing sustainable finance in Europe) that led to the adoption of a sustainable finance action plan in March 2018, one fundamental question of the international debate became the ability of public players and investors (including insurance companies) to re-direct flows of capital to the fight against climate change, balancing the needs for mitigation funding with those for adaptation.



The DERRIS project analysed the possible financial instruments available to local entities to adapt to climate change while assessing their expediency and critical nature in the Italian context, and conducted an in-depth study of possible incentive schemes (including tax incentives) that can create incentives for SMEs to implement interventions to reduce climate risks and increase their resilience.



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PROJECT PARTNERS



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www.unipol.it/en/climate-change



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CITY OF TURIN

CITY OF TURIN
www.comune.torino.it



COORDINAMENTO AGENZE 21 LOCALI
www.a21italy.it/chi-siamo/lassociazione



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Ideazione e progetto grafico: **K2.kilowatt.bo.it**



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