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STATISTICAL YEARBOOK OF THE ITALIAN NATIONAL FIRE BRIGADES



Reference period:
January 1, 2017 - December 31, 2017
(data updated to March 13, 2018)



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EDITED BY
THE STATUARY AND TECHNICAL NORMATION BUREAU
LINK OF THE ADMINISTRATION FOR CULTURAL HERITAGE ISSUES

This document is the English translation of the "Statistical Yearbook of the National Corps of Fire Brigade".

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FOREWORD

The Italian National Fire Brigade is included in the Ministry of Internal Affairs, as a structure committed to public rescue within the whole nation, also for what concerns civil defense, prevention and extinction of fire, in order to ensure the safeguard of human life and the protection of goods and of the environment.

In addition to the intervention of urgent technical rescue and to the activities of fire prevention conducted also in the field of Major Hazard Risks, the National Fire Brigades ensure also fire surveillance in sport premises and in theatres and public entertainment events, education and instruction for fire teams belonging to companies, fire stations inside harbours and civil airports, and act also as surveillance body within the national regulatory framework for safety on working places, and forest fighting.

Moreover, the National Fire Brigades Corp, thereafter often aliased as CNVVF (as by the Italian Corpo Nazionale dei Vigili del Fuoco), is the fundamental component of the national system for civil protection, acting in case of natural disaster in coordination with the main authority in this field - the National Civil Protection Department.

To deliver on its institutional mandate, in compliance with the principle of proximity to the citizens' needs, the CNVVF is articulated in Regional Directions (Direzioni Regionali), Provincial Fire Departments (Comandi Provinciali), Fire Stations of Professional Fire Fighters (Distaccamenti Vigili del Fuoco Permanenti), Fire Stations of Voluntary Fire Fighters (Distaccamenti Vigili del Fuoco Volontari).

In this framework, statistics plays a crucial role, both for planning of the operative actions and for the more general execution of the institutional tasks, to support continuous institutional update, through the monitoring and analysis of the activities, as well as the effective use of available resources and the bettering of the services delivered to the community.

To this end, the Central Statistical Service has been editing the Statistic Annual Report of the CNVVF for several years, with the aim to standardize and spread out the information, in a fully available way also for users outside the Administration, as well as to acknowledge the work of the CNVVF.

1 THE STATISTIC SERVICE OF THE C.N.VV.F.

1.1 Introduction

As well known, statistics plays a major role as tool for evaluation of the effectiveness of the Public Administration in carrying out its institutional task

A rational collection and management and analysis of data may be a valid support for strategical planning and monitoring of the policies of complex organization as the Fire Brigades. Based on this consideration, the new organizational model of the CNVVF provides the coordination of the statistic service to be closely related to the Head of the National Fire Brigades at his Cabinet. Therefore, this report has been prepared by the “Ufficio normazione ordinamentale e tecnica, collegamento beni culturali, referente sicurezza e statistica”, the Statuary and Normation Technical Bureau, Link of the Administration for Cultural Heritages Issues

Following the Decree n°322 dated 6 sept.1989, statistical activity has become a mandatory duty for all the public administrations, including so also the central and peripheral structures of the National Fire Brigades.

Shortly, the above decree states that:

- the central and peripheral statistic bureaus of the State are part of SISTAN (short for National Statistics System);
- at each central administration statistic offices are set up, functionally connected to the italian superior institute for statistic (ISTAT);
- the statistic offices are structured as by the importance of the activities managed by the administrations they belong to and by the needs to national information system;
- it's mandatory for the public administrations to make available data and information foreseen by the National Statistic Program (PSN);
- Data collected as part of the PSN are performed publicily available only as gross data, without direct link to specific situations and can be used only for statical goals.

1.2 The Statistic Service of the C.N.VV.F.

The framework described in the foreword required an organization to be set up at central and at local level that could make possible to handle all data necessary for monitoring the activities of the C.N.VV.F. and also the benchmark for the internal auditing.

With this purpose, the circular letter n°1 dated 2 Jan. 2003, sentenced the institution of the Statistical Service of the C.N.VV.F., articulated as follows

- Central Statistic Service at the Cabinet of the Head of the CNVVF (Bureau of Direct Collaboration of the Head of the C.N.VV.F);
- Regional Statistic Services inside the Regional Directions of the C.N.VV.F;
- Statistical Services inside the Provincial Fire Departments;

1.2.1 Goals

The goals of the Statistical Service are to produce:

- Indications on the trend of the institutional task of the Fire Brigades (Public Rescue, Fire Prevention, Fire Survey, Professional Education of the Personnel);
- Activities held by the central and local structures.

1.3 Central Statistical Service

The Central Statistic Bureau is the structure responsible for collection and handling of data, with the following main tasks:

- coordination of the Regional and Provincial Services;
- coordination of all the bureaux involved in the collection of statistical data;
- selection of data to be collected and of the statistical output to be produced;
- collection, management and analysis of data, in collaboration with the IT at the Central Directorate on Logistic, in order to identify and collect business requirements for the digitalisation of the service.
- coordination with the IT services at the Central Direction for Logistics in order to find out and solutions and organizational provisions for the automatization of the service.
- coordination with the Central Direction for Professional Education for the assessment of educational needs and development of the capabilities of collecting data and analyze them;
- coordination with the Bureau of the Department for Auditing;

- Liaison with other Departments of the Ministry of Interiors involved in Statistics, with ISTAT -main Italian National Authority, see also www.istat.it (English also) and with other national and international stakeholders);
- participation into courses, meetings and conferences;
- relations with the Regional Fire Departments and the autonomous Provincial Fire Departments of Aosta, Trento and Bolzano, for the integration of the data concerning rescue all over the nation.
- statistical studies and researches;

1.4 The Regional Statistical Service

The Regional Statistic Service relies on the respective Regional Directions; the Director coordinates the Service following the guide of the Statuary and Normation Technical Bureau, Link of the Administration for Cultural Heritages Issues

The Regional Director runs the Regional Service by official appointment to a Technical Officer

main duties of the Regional Statistical Services are:

- coordination of the statistical activities of the Provincial Fire Departments belonging to the Region;
- collaboration with the Central Statistical Service for identifying and updating data to be collected and output to be produced;
- sampling of data necessary to be used to at local level, as well as for study and research purposes.
- redaction of the Regional Statistical Yearbook;

1.5 The Provincial Statistical Service

The Provincial Statistical Service at the Provincial Fire Department is coordinated by the Provincial Fire Chief, on the base of the indication given by the Statuary and Normation Technical Bureau, Link of the Administration for Cultural Heritages Issues.

The Provincial Fire Chief plays this role by formal appointment to a Technical Officer.

Main duties to the Provincial Statistical Service are:

- collaboration with the Regional Statistical Service for selection and updating of the collecting data and statistical output;
- sampling and of the data necessary al local level, also for study and research;

- redaction of the Provincial Statistical Yearbook.

2 SOURCE OF DATA

The collection of data is conducted by the STA-RI (Statistics and Report of Intervention) web based software, used by the crew commander while compiling the intervention report on digital support on a standardized frame called “VF-41”.

2.1 The STA-RI Software

Originally, the module VF-41 used to be filled in manually on paper, and then transmitted to central offices through an optical character recognition system to be digitalized.

Thereafter, this process was enhanced by the introduction of the STAT-RI application that allows the electronic compilation of the same data included in the VF-41 form, such as time and place, type of accident, cause, substance involved, injured/deads, etc.

This application is perfectly integrated with SO115 software, - the software used in the operating rooms - allowing the person compiling the form to import, thanks to the card code, all information already inserted by the operator in the control room. At the same time, this mechanism ensures the integrity of all data treated by SO115 and STAT-RI system.

2.2 The new web based STAT-RI

The aforementioned client-server application has been substituted by a new centralized web platform configured as a web portal, through which it is possible to access the new STAT-RI web procedure, as well as other services, such as the online consultation of all documentation related to the procedure (management and conPicturation manuals), information regarding development groups, ways to require technical support, other collateral services.

3 DATA PROCESSING

3.1 Introduction

The National Fire Brigades use a Business Intelligence software for the analysis of the sintethic data of the activities done by the Fire Fighters. The acronym BI stands for process of search, collection, handling and transformation of data in information, to be used in the decision taking activities. These softwres, by exact, updated and pertinent infos given on the referring scenarios, make possible to the managerial levels to determine the so-called strategical decisions.

Moreover, the BI currently in use, offers an highly visual and interactive layout that allows everyones possible also to not IT specialist, to have access to the data and to analise them.

3.2 Advantages offered by statistical treatments with BI tools.

The use of a BI software makes possible to immediately gain a clear a dynamic overview of data on actions undertaken.

Indeed, the SW allows users to choose the kind of analysis to be performed through its interface, by selecting the graphical elements on the screen.

The use this tool offers the the following additional advantages:

- ✓ new statistical analysis through easy selection of data available on screen by mouse selection;
- ✓ availabiliy of more detailed data compared to those of hard copies;
- ✓ printing cost savings, in lines with governmental guidelines on cut off of expenses in the public administration;
- ✓ Significant reduction of access time to statistical elaborations by users, by the reason that, as seen before, the STAT-RI WEB software is updated just in time as the VF – 41 form is drawn.

4 STATISTIC ON URGENT TECHNICAL RESCUE EVENTS CONDUCTED BY THE C.N.VV.V. – (Referring period 01/01/2017 – 31/12/2017)

4.1 Introduction

Base of the Decree n. 139 dated 8 march 2006 and on itsl following updated versions, introduced by the Decree n.97 th 29th may 2017, the National Fire Brigades, Corpo Nazionale dei Vigili dei Fuoco, is a civilian body, in the frame of the MOI, Department of Fire Fighters, Public Rescue and Civil Defence. By the Fire Brigades the Ministry of Interiors ensures public rescue and fire prevention on all national territory, as well as the the execution of all other activities that the Fire Brigades are responsible of.

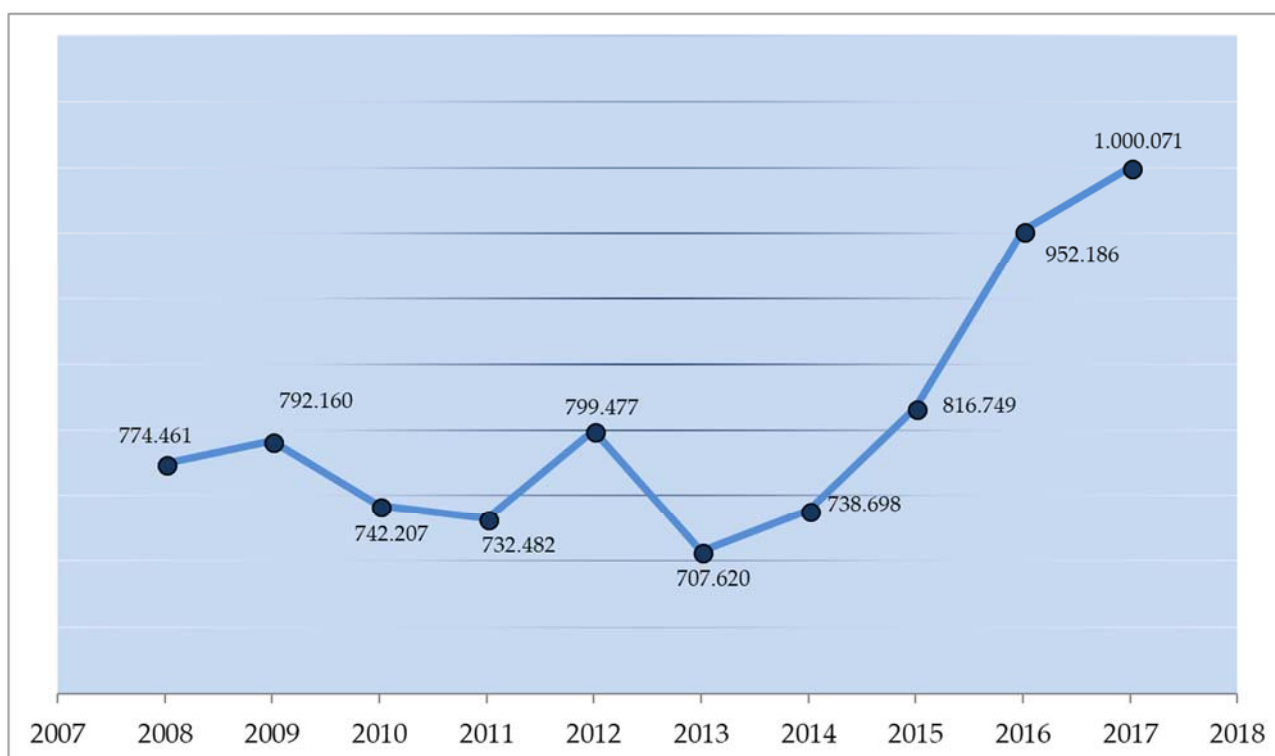
This document contain statistics related to the main institutional tasks performed by CNVVF are reported.

It can be useful for the reader to note that the CNVVF is the core component of the italian national service of civil protection, as by the statement of art. 10 of the Decree n.1, dated 2 jan.2018.

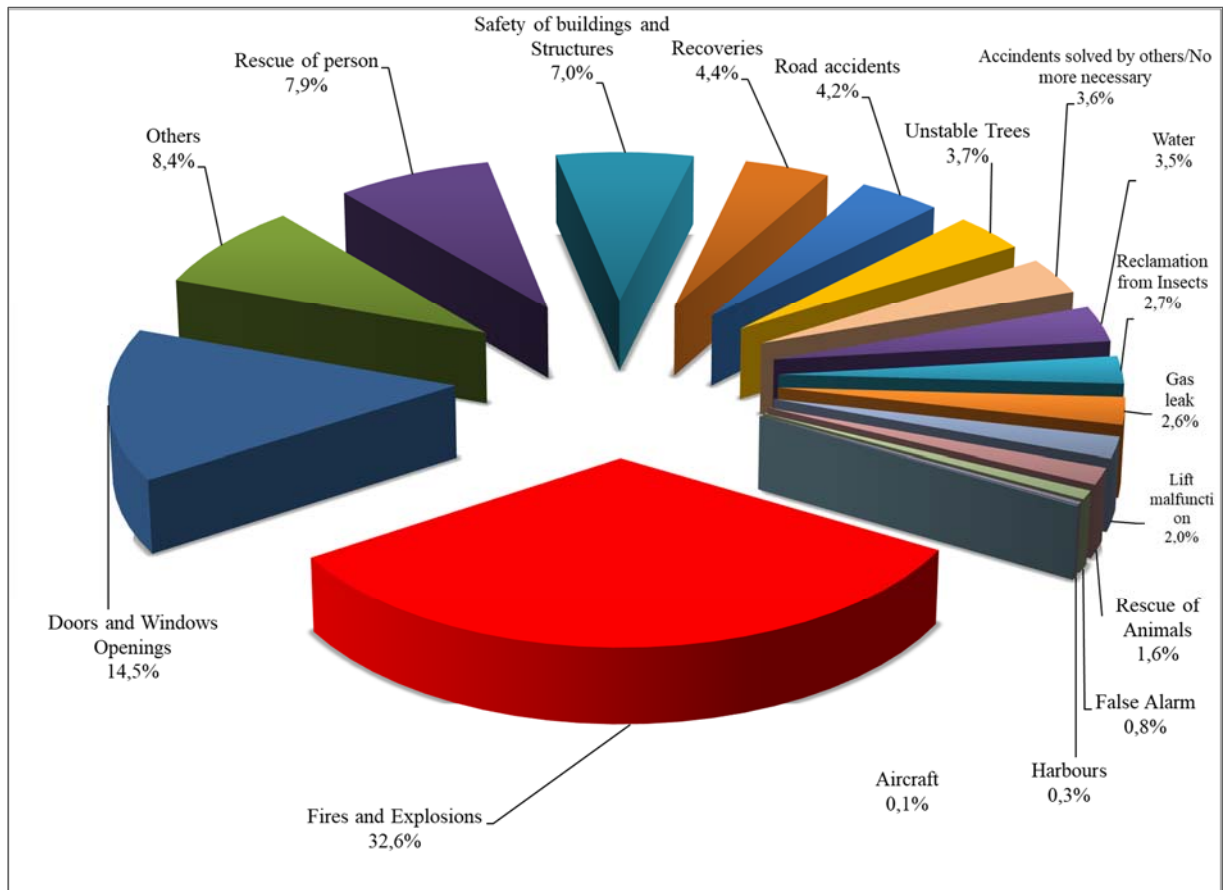
4.2 Urgent technical rescue events performed at national level from 1st January 2017 to 31st December 2017.

On the base of the prescriptions of the Decree n139/2006, the National Fire Brigades, in order to ensure the safety of people and preservation of goods, carry out technical interventions featured by immediate starting for which high skill levels and adequate equipments are needed.

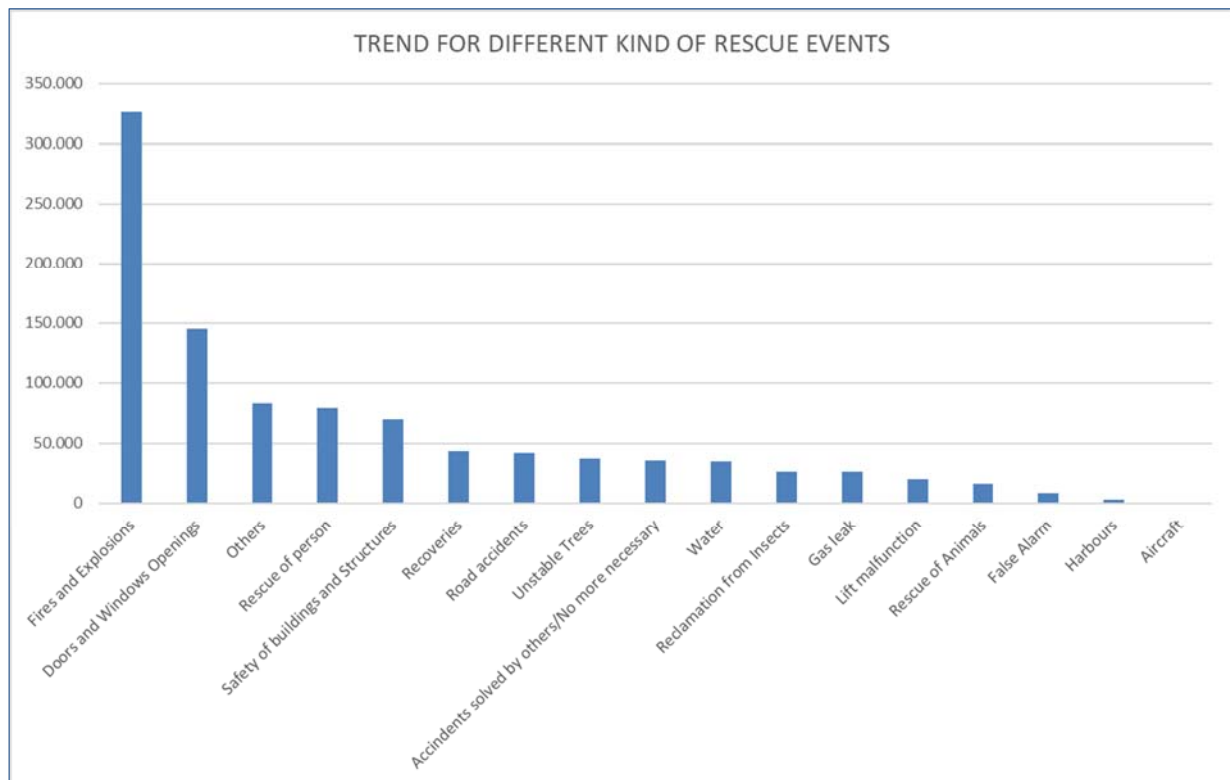
In this paragraph statistical elaborations are presented, concerning urgent technical rescue activities completed in 2017. This year, the number of rescue events followed the same trend of the previous ones and grew by 5% (year on year) exceeding one million.



Picture 1 – Urgent technical rescue events from 2008 to 2017

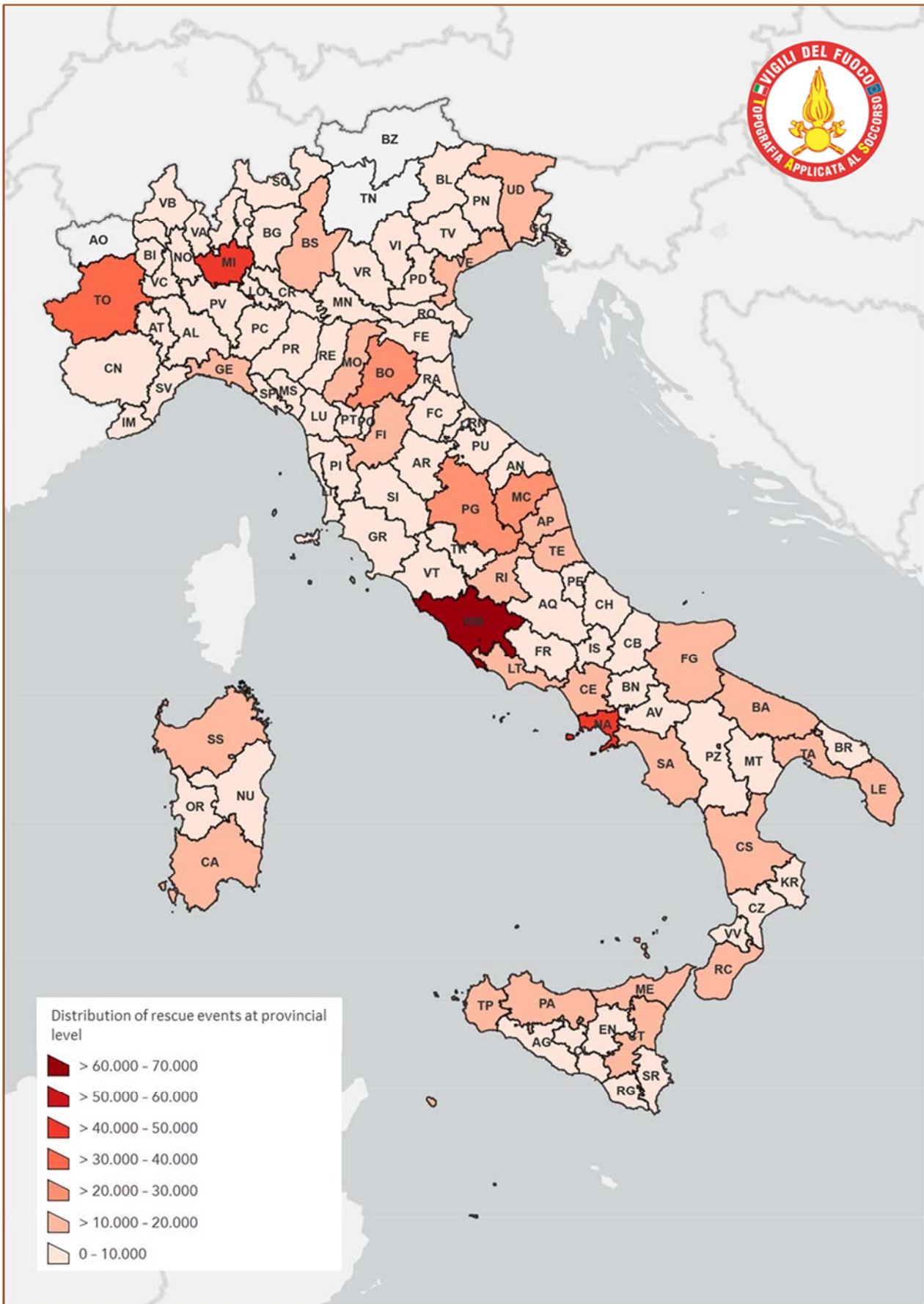


Picture 2 –Trend of rescue events kind in 2017.



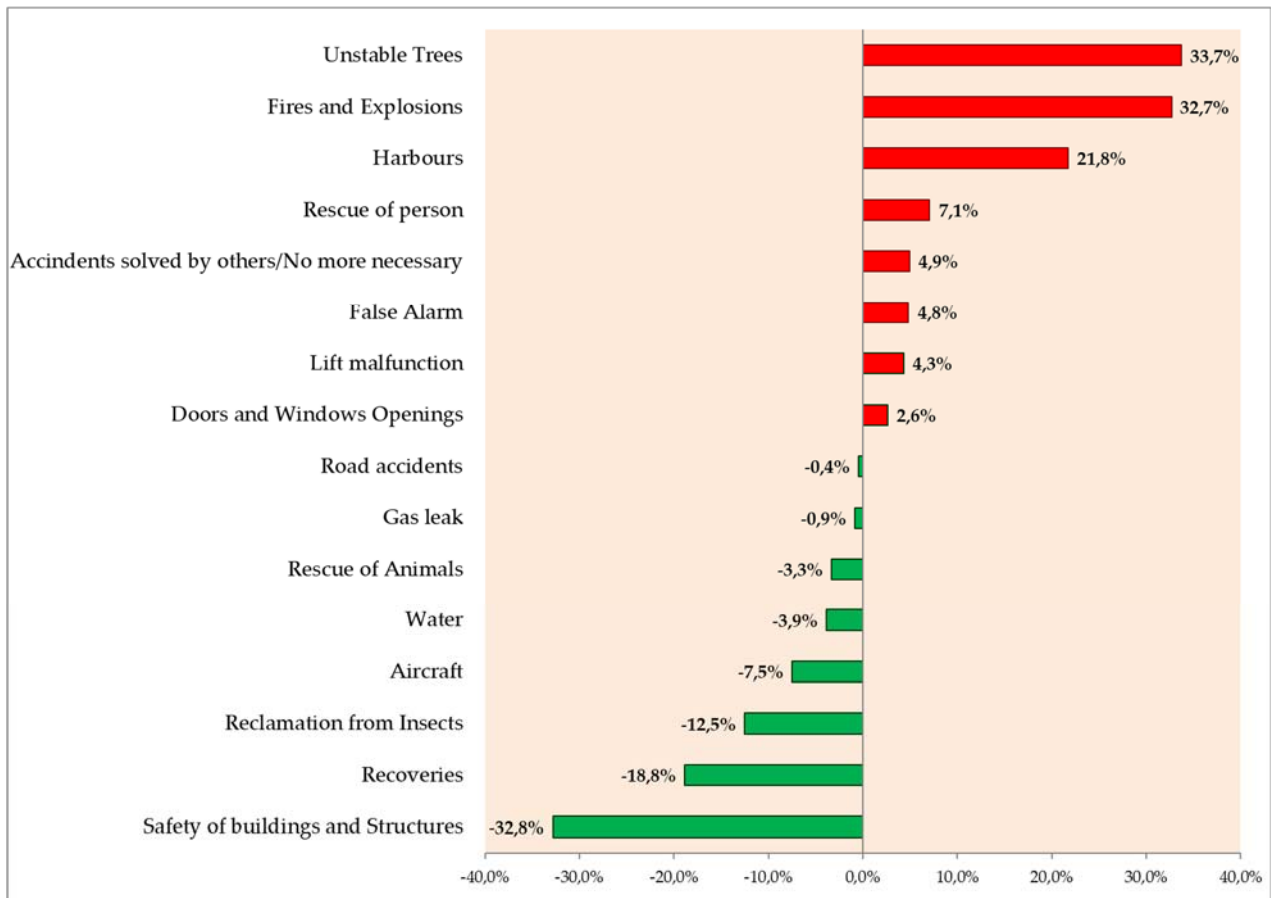
Picture 3 –Trend of rescue events changes by kind, in 2017 (abs. values).

The following picture shows the geographical distribution of rescue events at provincial level.



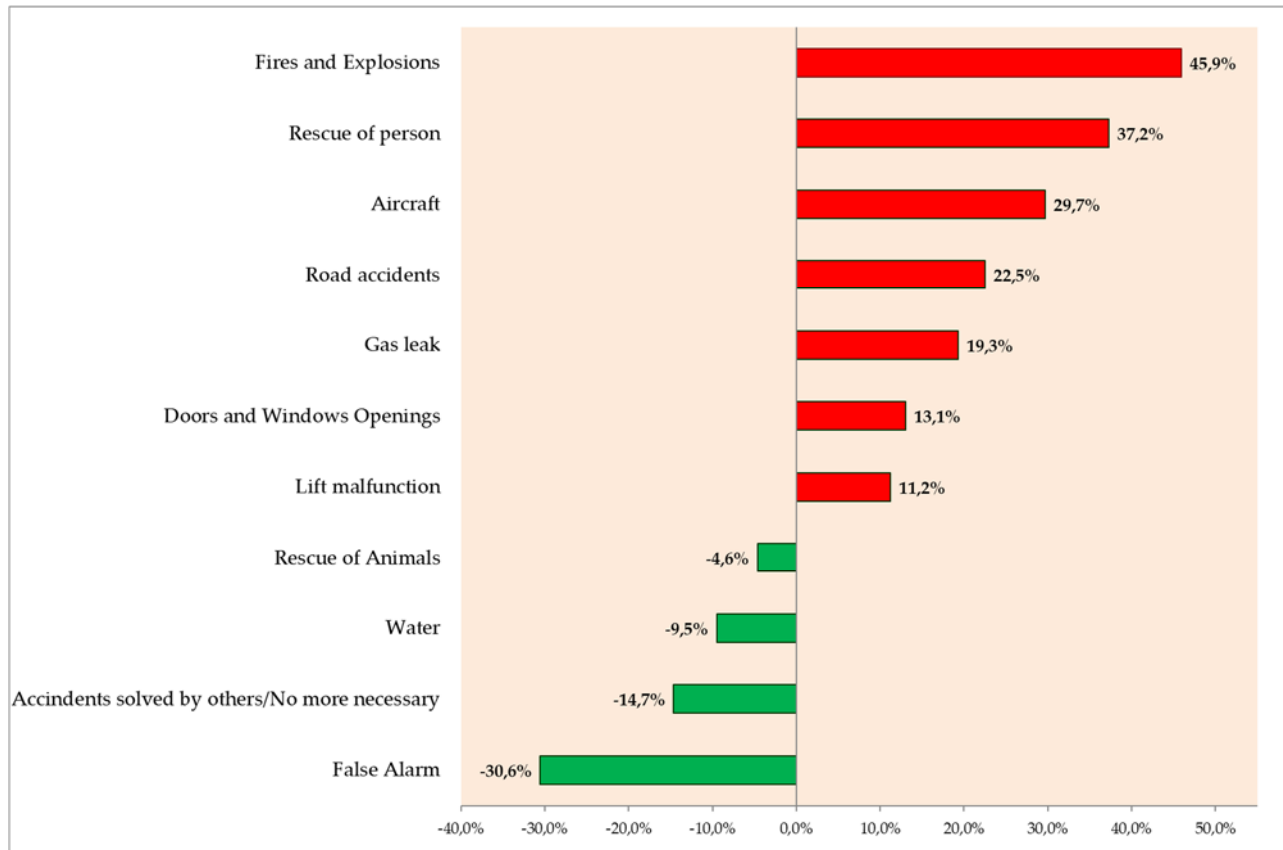
Picture 4 –The distribution of rescue events at provincial level in 2017.

The below graph shows the Percentage variation in the number of interventions completed in 2017 compared to 2016 by the most significant types. Red bars show an increase in the number of interventions, green ones a decrease.



Picture 5 –Percentage variation from 2016 to 2017

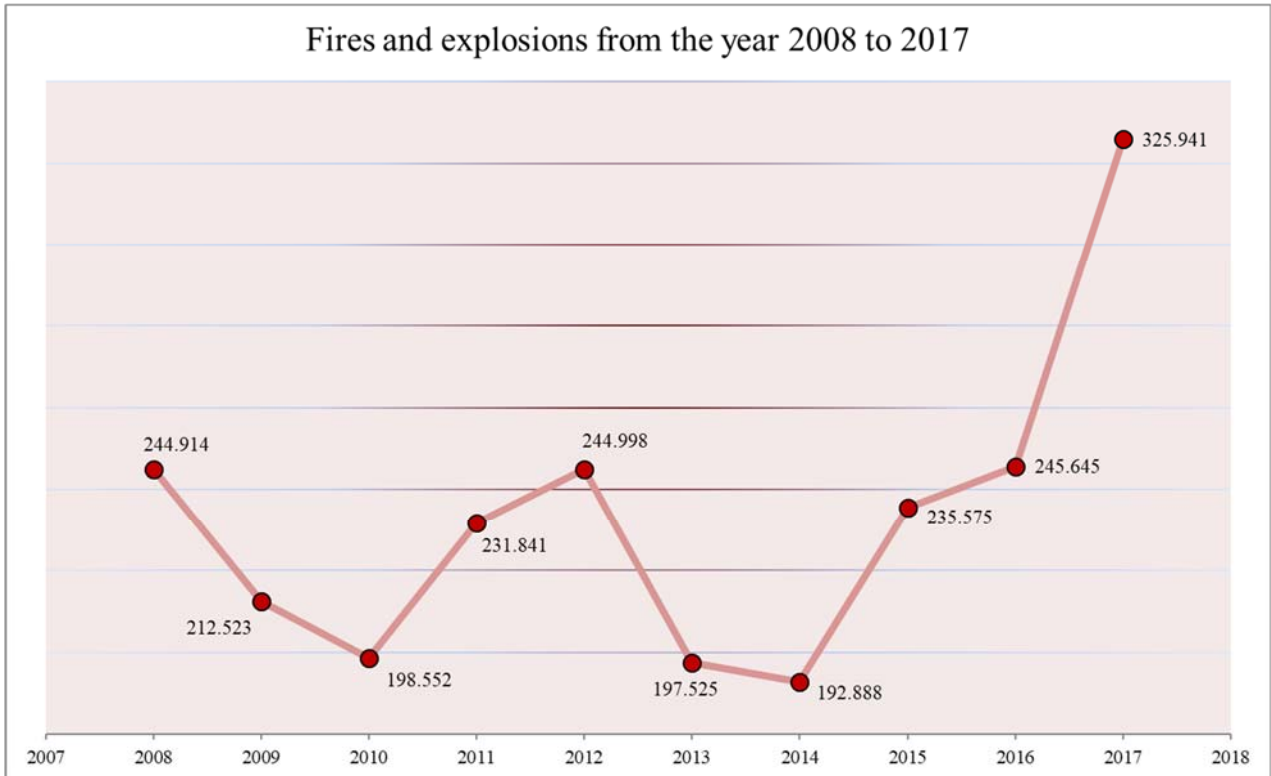
In the following graphic the Percentage variation happened in 2017 compared to five previous years (2012 to 2016), of the number of interventions by the most significant types, in numerical terms. The increased types are highlighted in red, in green the reduced ones.



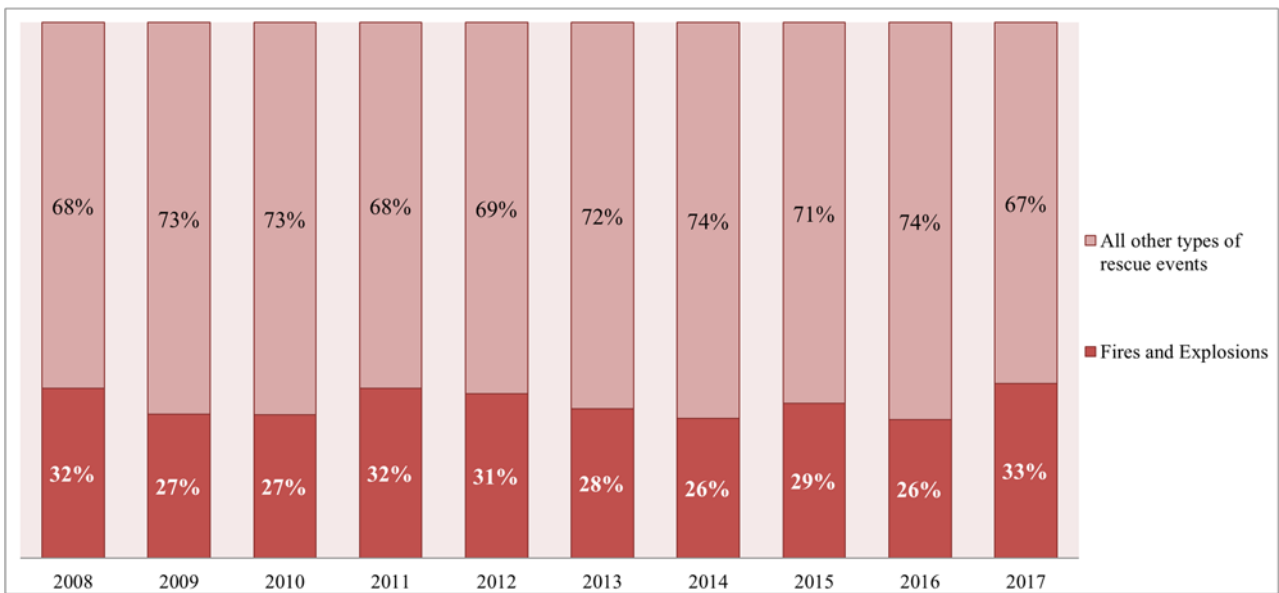
Picture 6 – Percentage variations occurred in 2017 vs. the average values 2012 to 2016.

4.2.1 Fires and Explosions

In this paragraph some statistical reports concerning the type “Fires and Explosions” are given.



Picture 7 – Evolution of the “Fires and Explosions” type from 2008 to 2017



Picture 8 – Percentage, year by year, of the type “Fires and Explosions”, vs. the total amount of rescue events.

The table “Detail on event place” for the “Fires and Explosions” type, year 2017, follows. Only places with frequency of occurring greater than 0.2% have been considered. The application of this filter has reduced the number of distinct places from 246 to 32, giving anyway a representation of 94.3% of the interventions. The Percentage value has been calculated on the base of the whole amount of the “Fires and Explosions” type (325.941 globally).

PLACE	DETAIL OF THE PLACE	Fires and Explosions	
		No.	%
Places for Specific Uses	Others	1.317	0,4%
Residential Places and Homes	Private flats and Homes	36.661	11,2%
	Generic Building	10.466	3,2%
	Others	5.835	1,8%
	Private Parkings	2.026	0,6%
	Gypsy Camps	1.674	0,5%
	Temporary Buildings	936	0,3%
	Waste Storage Rooms	718	0,2%
	Switchboard Room	670	0,2%
	Storages of Solid Combustibles	Storages of Waste	1.182
Storages of Forages and Straw		1.101	0,3%
Commercial and Sales Stores	Restaurant and Canteens	979	0,3%
Agricultural and Farming Places	Fields	52.112	16,0%
	Rural Areas	22.601	6,9%
	Forest and Woods	22.301	6,8%
	Others	4.683	1,4%
	Tree Covered Areas	4.487	1,4%
	Agricultural Building	1.439	0,4%
	Storage Buildings	1.357	0,4%
Traffic and Parking Areas	Urban Roads and Squares	58.577	18,0%
	Extrurban Roads	26.381	8,1%
	Highway and High Density Urban Roads	4.538	1,4%
	Inner Yard of Buildings	3.771	1,2%
	Out door Parking	2.400	0,7%
	Gardens	1.876	0,6%
	Rail Areas	915	0,3%
	Others	757	0,2%
Mountain Areas	Others	1.111	0,3%
Other Places	Others	3.160	1,0%
	River and Inland Water	1.293	0,4%
	Seashore Areas	1.159	0,4%
*	*	28.953	8,9%
Total			94,3%

(*) Rescue event report still open, data partially inserted.

Table 1 – Places with frequency of fire higher than 0.2% for the “Fires and Explosions” type.

The table “Detail on causes of event” for the “Fires and Explosions” type, year 2017, follows. Only places with frequency of occurring greater than 0.1% have been considered. The application of this filter has reduced the number of distinct causes from 92 to 91, giving anyway a representation of 99.1% of the interventions. The Percentage value has been calculated on the base of the whole amount of the “Fires and Explosions” type (325.941 globally).

CAUSE	DETAIL OF THE CAUSE	Fires and Explosions	
		No.	%
Causes provoking need of Rescue to Persons	Not Being Possible to Evaluate	1.299	0,4%
Causes of Accident of Transportation Means and Vehicles	Lack of Attention	424	0,1%
Cause of Fire Ignition	Chimney and/or Owen Ducts	13.101	4,0%
	Cigarette Butts and Matches	6.499	2,0%
	Electrical Causes	11.796	3,6%
	Fault on Heating Production Plants	333	0,1%
	Fireworks	361	0,1%
	Glitter from Friction of Mechanical Parts	650	0,2%
	Household Appliances	1.025	0,3%
	Lack of Safety and Cautional Measures of Management	1.612	0,5%
	Lighting	579	0,2%
	Other	20.547	6,3%
	Over Heating of Engines and Machines	1.470	0,5%
	Selfcombustion	1.784	0,5%
	Malicious / Intentional Causes	Probably Fault Originated Causes	2.790
Probably Malicious/Intentional		13.129	4,0%
Not Being Possible to Evaluate	Not Being Possible to Evaluate	202.480	62,1%
Causes of Other Types of Intervention	Bad Working of Plants and or Machinery	927	0,3%
	General Lack of Attention	2.356	0,7%
	Others	6.870	2,1%
	Unforeseen Causes	3.429	1,1%
*	*	29.569	9,1%
TOTAL			99,1%

(*) Rescue event report still open, data partially inserted.

Table 2 – Causes with frequency of fire higher than 0.1% for the “Fires and Explosions” type.

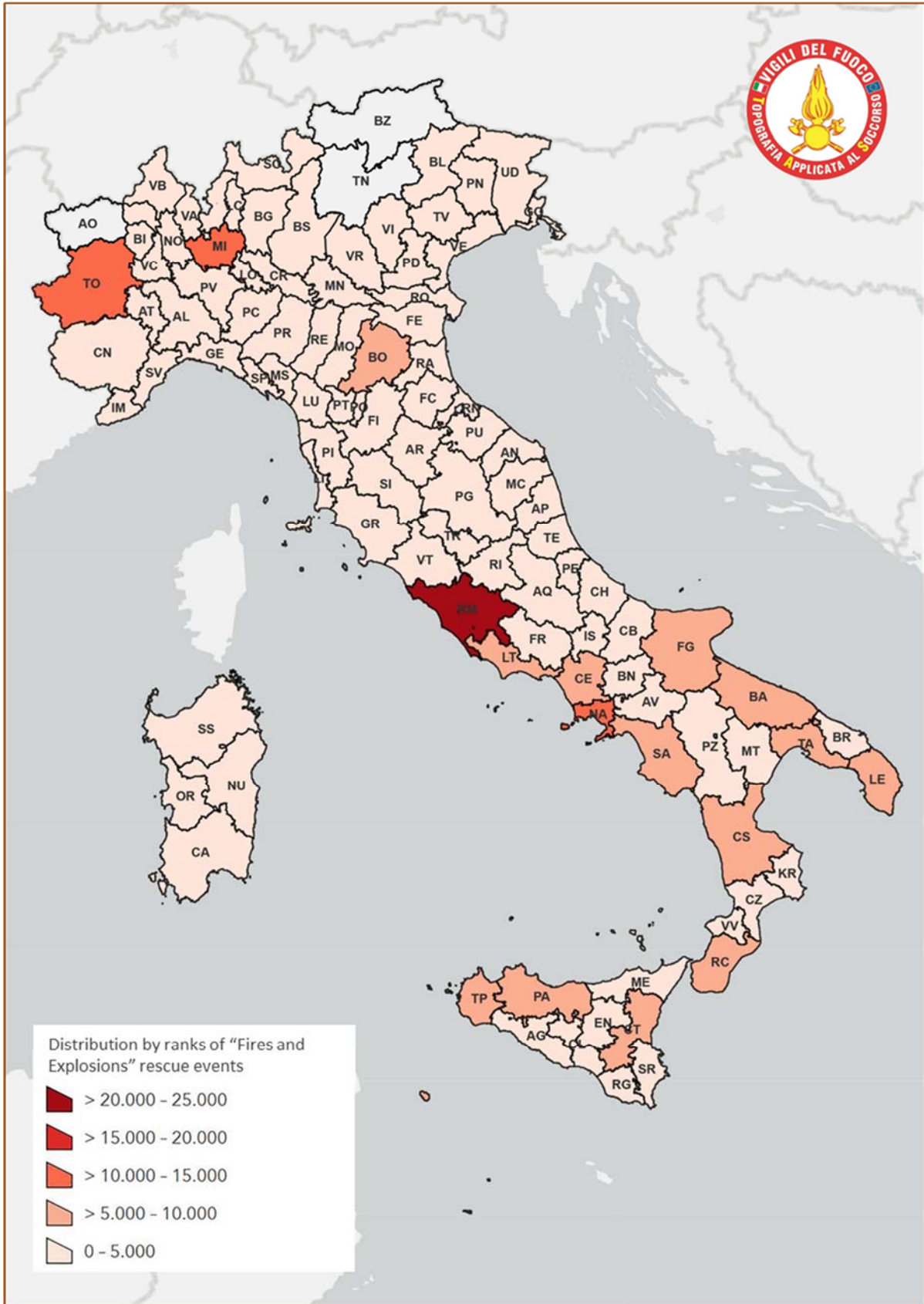
The table “Detail on substance involved in accident” for the “Fires and Explosions” type, year 2017, follows. Only substances with frequency of occurring greater than 0.2% have been considered. The application of this filter has reduced the number of distinct substances from 127 to 31, giving anyway a representation of 97.2% of the interventions for “Fires and Explosions”. The Percentage value has been calculated on the base of the whole number of events of the “Fires and Explosions” type (325.941 globally).

SUBSTANCE	DETAIL OF THE SUBSTANCE	Fires and Explosions	
		No.	%
Solid Combustibles	Scrub	106.005	32,5%
	Waste	26.580	8,2%
	Bushes and Mediterranean Coast Wildland	18.008	5,5%
	Others	17.040	5,2%
	Trees	12.617	3,9%
	Hay , Straw and similar	7.303	2,2%
	Dust	6.960	2,1%
	Wood and sughero	6.944	2,1%
	Fornitures	6.219	1,9%
	Plantations (generic)	3.872	1,2%
	Paper and Cellulose	3.285	1,0%
	Plastic	2.177	0,7%
	Wooden Structural Elements	1.734	0,5%
	Textiles , Clothing And Fibers	1.262	0,4%
	Wood Powder	744	0,2%
Other Flammables and Combustibles	LPG	711	0,2%
Building Products	Chimneys, Smoke Ducts and Chimney Stacks	8.354	2,6%
	Inclined Roofs	3.584	1,1%
	Others	1.217	0,4%
Transportation Means	Cars	18.428	5,7%
	Trucks and Tenders	2.761	0,8%
	Motorcycles and Scooters	863	0,3%
	Yard Operating Vehicles	820	0,3%
	Other	665	0,2%
Others	Not evaluated	10.494	3,2%
	Others	7.051	2,2%
	Waste container	5.711	1,8%
	Electrical Switchboard and Electrical Plants	3.529	1,1%
	Electrical Appliances	1.937	0,6%
	Machineries (generic)	1.090	0,3%
*	*	28.712	8,8%
TOTAL			97,2%

(*) Rescue event report still open, data partially inserted.

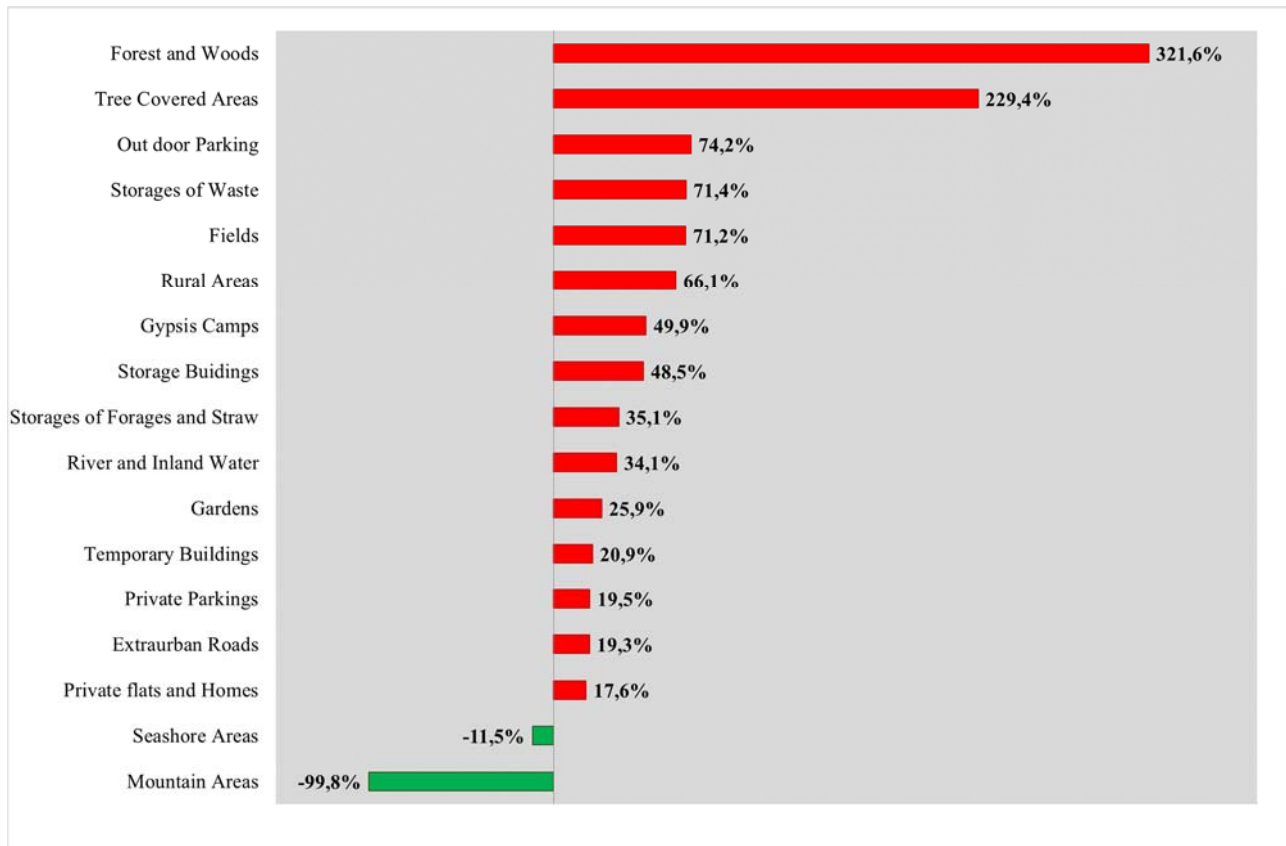
Table 3 – Substances with frequency of fire higher than 0.2% for the “Fires and Explosions “ type.

The following map shows the distribution at provincial level by ranks of intervention conducted in 2017 for the “Fires and Explosions” type.



Picture 9 – Distribution by ranks of “Fires and Explosions” rescue events at provincial level in 2017.

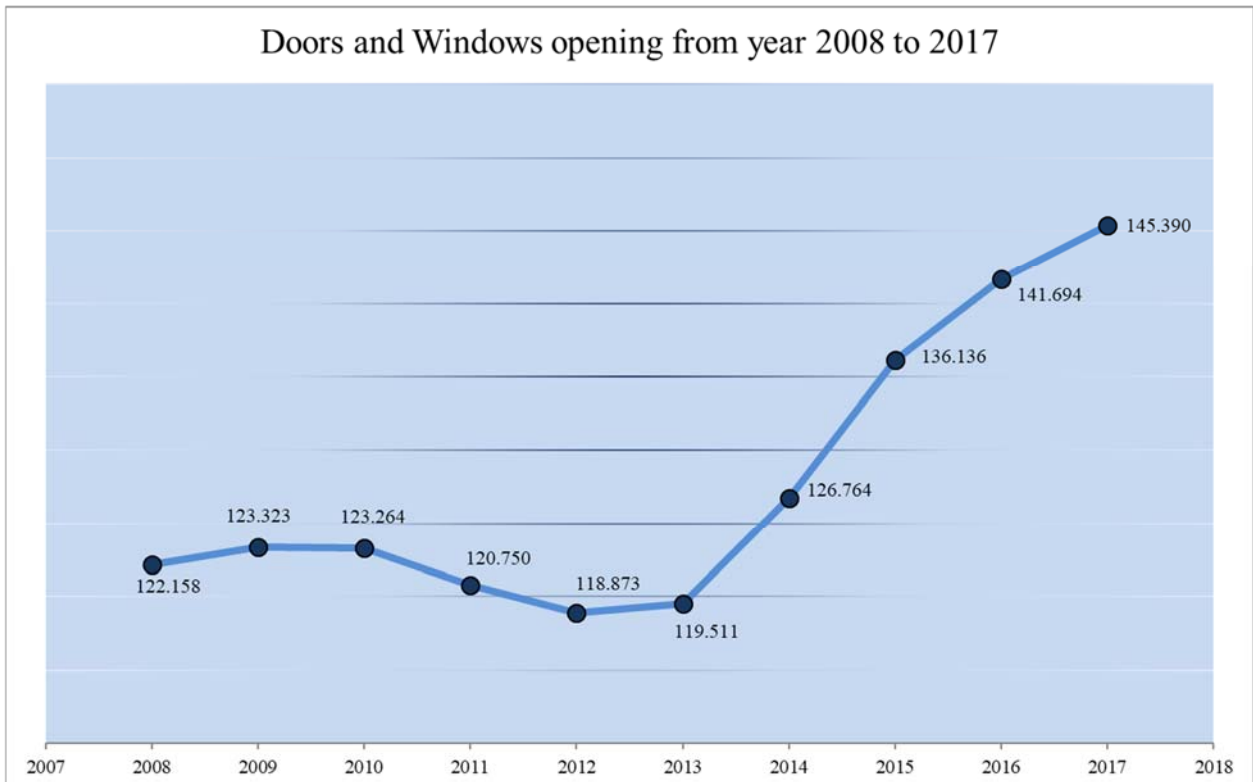
Following, the **places** for which the Percentage variation for the “Fires and Explosions” type from the average values in the (2015-2016) occurred in 2017, has been greater than 10%. Only the places where the variations of the same value have been greater than 0.3% have been considered.



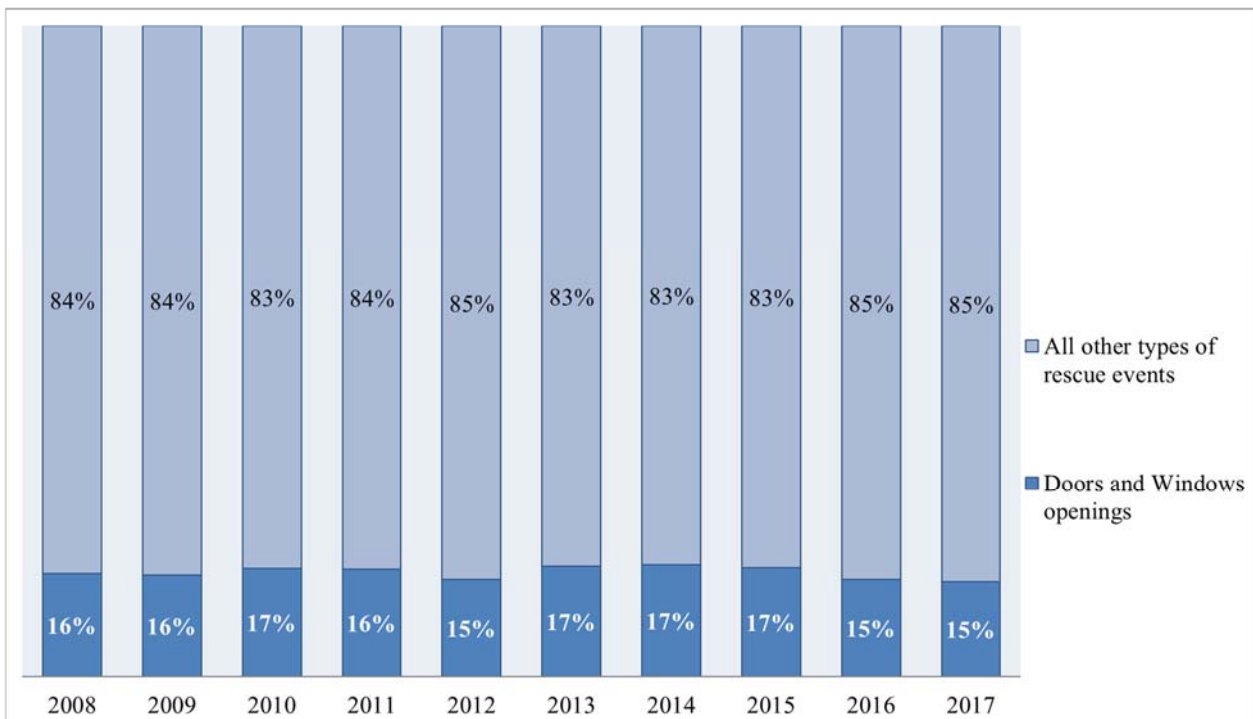
Picture 10 – Percentage variation from the average values 2015-2016, occurred in 2017, for the “Fire and Explosions” number of rescue events.

4.2.2 Opening of windows and doors

In this paragraph statistics referred to the intervention type “ opening of windows and doors“ are reported.



Picture 11 – Evolution of interventions for the “opening of doors and windows” from 2008 to 2017



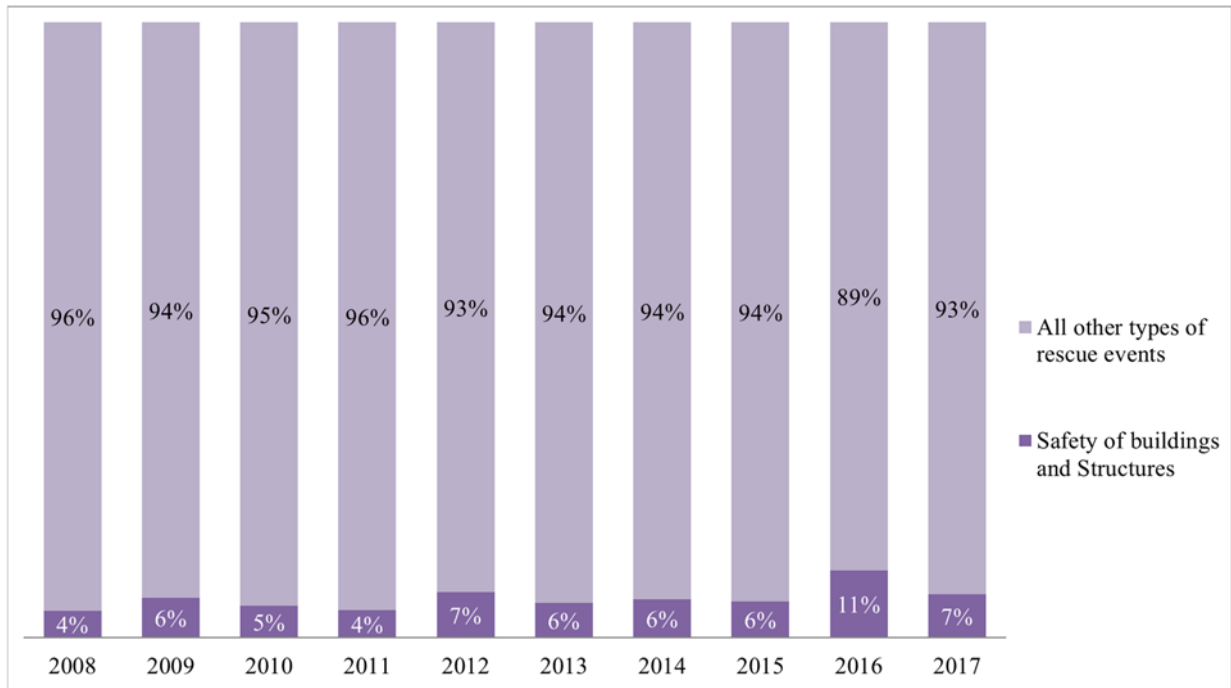
Picture 12 – Percentage, year by year, of the type “Opening of doors and windows”, vs. the total amount of interventions.

4.2.3 Safety of Buildings and Stability of Constructions

In this paragraph statistic concerning interventions conducted for the statical safety of building and parts of buildings, stability of constructions, the whole sintetyzed as “Safety and Stability of Building” type.

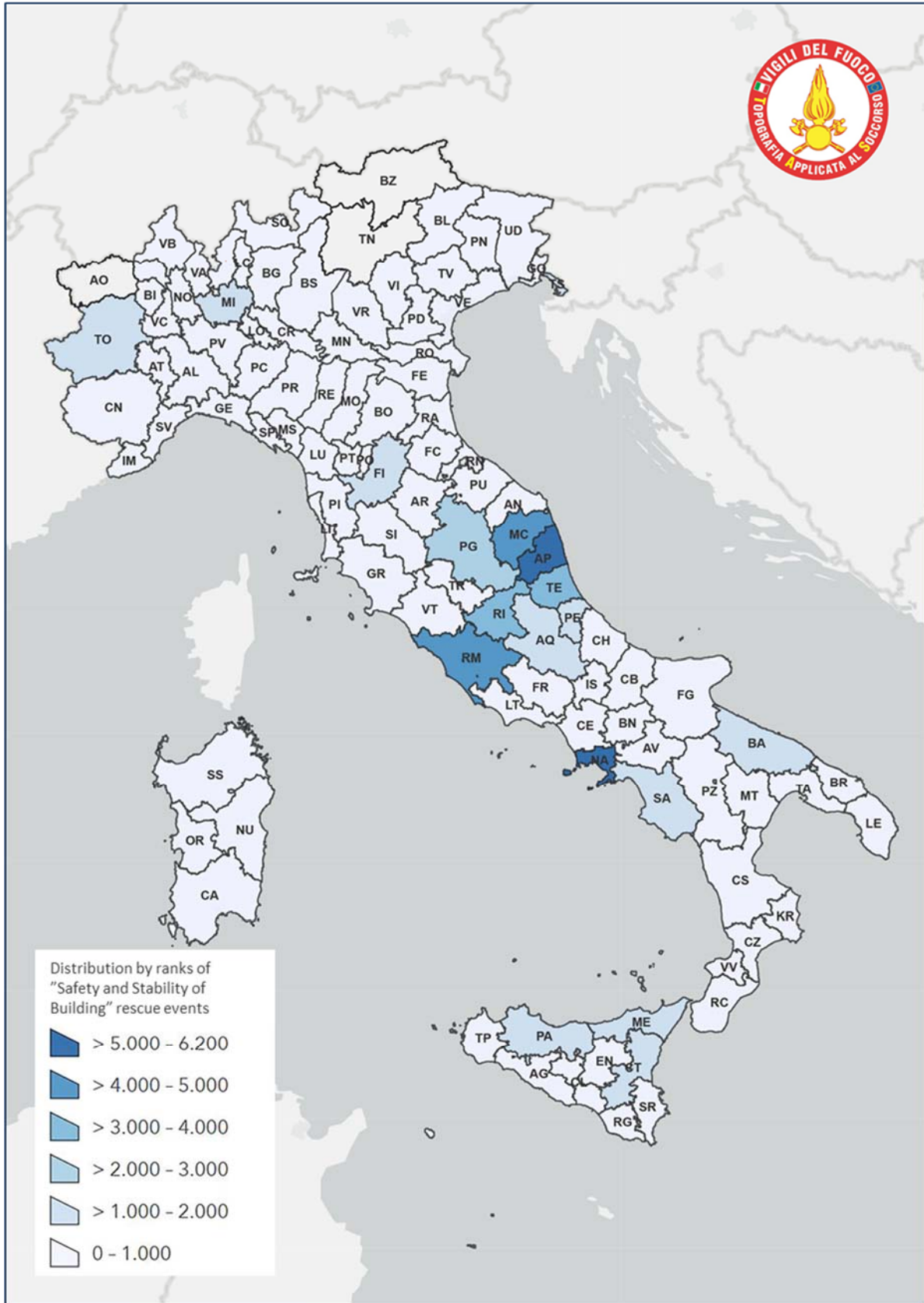


Picture 13 –Evolution of interventions for the “Safety and Stability of Buildings” from 2008 to 2017.



Picture 14 –Percentage, year by year, of the type “Safety and Stability of Buildings”, vs. the total amount of interventions.

The following picture shows the geographic distribution, at provincial level, by ranks of the " Safety and Stability of Building" type interventions, carried out in 2017.



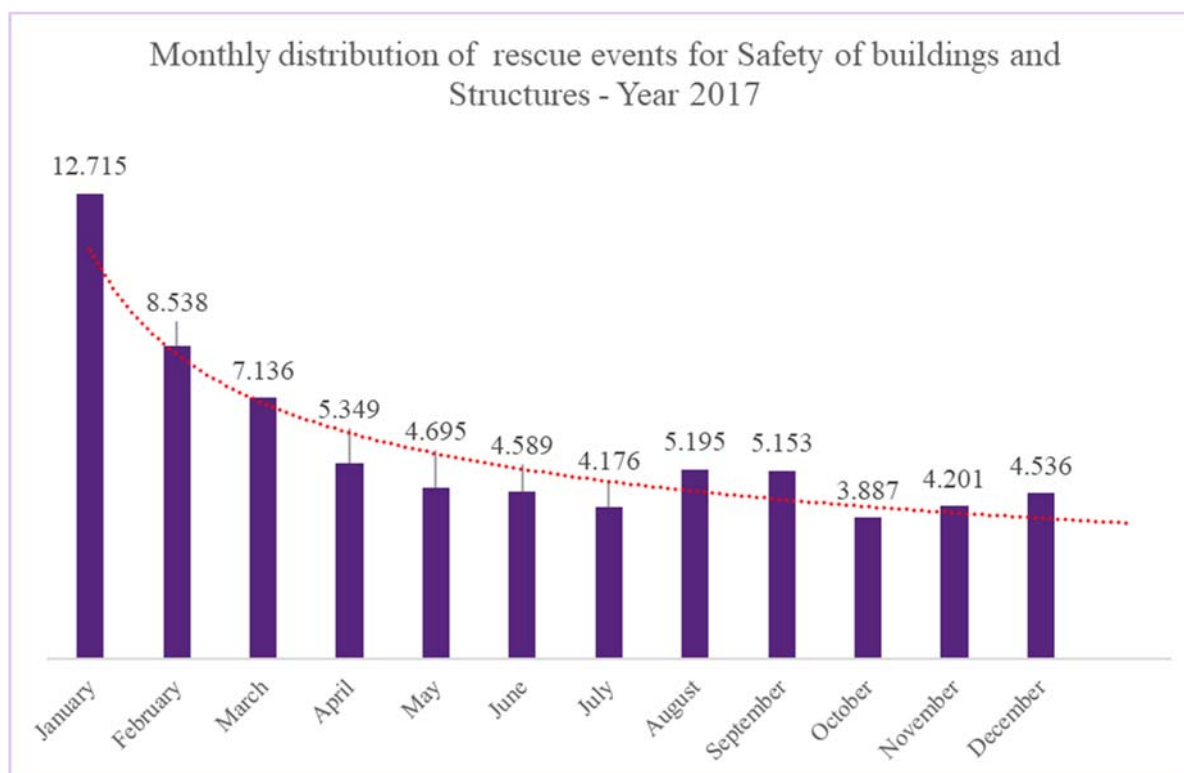
Picture 15 – Distribution in 2017 at provincial level of interventions by rank for the "Safety and Stability of Building" type.

The first 10 provinces that have registered the highest increase of intervention in the period 2016-2017 compared 2013-2015, for the “Safety and Stability of Building” type, are reported in the following table.

PROVINCIAL FIRE DEPARTMENT	No. rescue events for Safety of buildings and Structures		% variation from (average 2013-2015) to (average 2016-2017)
	Average 2013-2015	Average 2016-2017	
Macerata	112	6.944	6100%
Ascoli Piceno	186	9.327	4914%
Fermo	46	2.265	4824%
Teramo	113	5.091	4392%
Rieti	177	6.331	3483%
Perugia	222	3.944	1674%
Ancona	351	2.324	562%
Pesaro e Urbino	129	630	388%
Pescara	266	1.087	308%
L'Aquila	500	1.790	258%

Table 4 –Provinces with the highest Percentage increase of interventions, concerning stability of buildings, of the average value for the years 2016-2017, compared to the years 2013-2015

In the following graphic, the monthly distribution of amount of interventions for the “Building Stability” type for the year 2017 is reported. The red line represent the trend during the year, of returning to the values typical of the years before 2016, remarking that this year was the year of the very timely and spacially extended earthquake of Central Italy.



Picture 16 –Distribution of interventions for “Safety and Stability of Buildings” type by month.

The following table shows, for the year 2017, the numerical distribution and the percentage value of the intervention for “Safety and Stability of Building” by subcategories.

DETAIL TYPE OF RESCUE EVENTS	No. RESCUE EVENTS	% rescue events for Safety of buildings and Structures
Unsafe Static Conditions of Parts/Elements of Buildings	37.684	53,7%
Inspections and Controls on Static Conditions of Buildings, Caves, Landslides	14.304	20,4%
Roof Covering	3.139	4,5%
Provisional Shores and Yard Provisions with Design / Static Calculations	2.935	4,2%
Partial Collapse of Structural Elements	2.473	3,5%
Removal of Snows from Roofs	1.965	2,8%
Landslides	1.342	1,9%
Demolitions	1.216	1,7%
Removal of Debris and Parts of Collapsed Buildings	972	1,4%
Ground Collapse, Opening of Ground Holes or Caves	936	1,3%
Global Collapse of Buildings	689	1,0%
Road Plane Collapse	633	0,9%
Static Inspections for Damage Assessments on Buildings	588	0,8%
Dissassembly of Parts of Buildings	573	0,8%
Provisional Shores and Yard Provisions without Design / Static Calculations	495	0,7%
Landslides and Snowslides	93	0,1%
Static Inspection for Static Safety Assessment (Static Triage)	68	0,1%
Design of Shores and Static Supports	65	0,1%
TOTAL:	70.170	100,0%

Table 5 – Distribution within sub categories of the “Safety and Stability of Buildings” type.

Followingly, this table, shows for the year 2017, by the detail “Place of occurrence” for the “Stability of Buildings” type intervention, having considered the places that have registered a frequency higher than 0.2%. More specifically, the adoption of this filter has reduced the number of places from 184 to 22, giving anyway a representation of the 95.5 % of the interventions. The Percentage values are calculated on the total number of interventions of this type (No. 70.170).

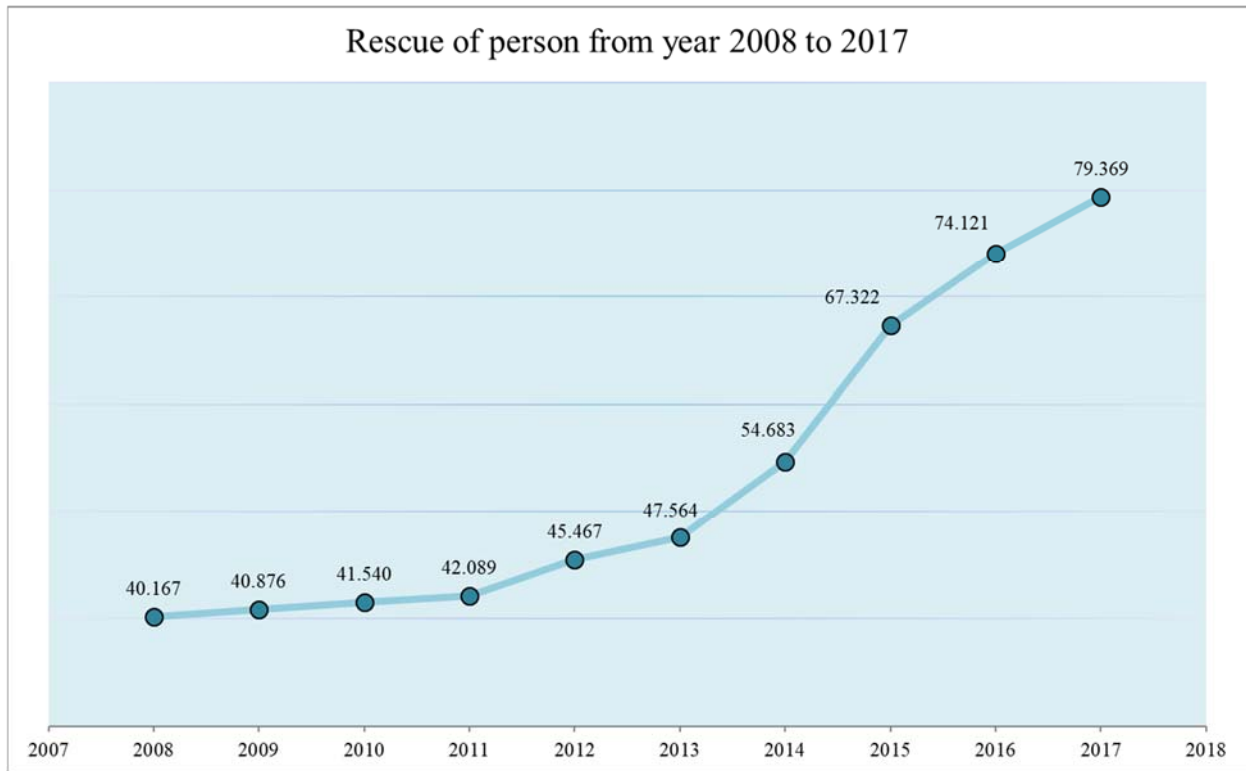
PLACE	DETAIL OF THE PLACE	TYPE DETAIL OF RESCUE EVENTS FOR SAFETY OF BUILDINGS AND STRUCTURES														No. Rescue events	%																																																																																																																																																																																																																																																																													
		Ground Collapse, Opening of Ground Holes or Caves	Roof Covering	Global Collapse of Buildings	Partial Collapse of Structural Elements	Demolitions	Unsafe Static Conditions of Parts/Elements of Buildings	Landslides	Provisional Shores and Yard Provisions with Design / Static Calculations	Removal of Debris and Parts of Collapsed Buildings	Removal of Snows from Roofs	Disassembly of Parts of Buildings	Inspections and Controls on Static Conditions of Buildings, Caves, Landslides and Snowslides	Static Inspections for Damage Assessments on Buildings																																																																																																																																																																																																																																																																																
Places for Specific Uses	Churchs and Religious Buildings	2	67	15	37	17	673	0	1.399	54	21	82	291	0	1	2.659	3,8%																																																																																																																																																																																																																																																																													
	Schools	5	31	6	33	30	489	2	8	8	56	6	203	0	1	878	1,3%																																																																																																																																																																																																																																																																													
	Others	4	25	17	29	9	282	2	56	15	20	5	156	0	2	622	0,9%																																																																																																																																																																																																																																																																													
	Barracks Military Premises, Bases	3	29	2	12	0	295	4	1	5	19	2	59	0	1	432	0,6%																																																																																																																																																																																																																																																																													
	Banks, Bureaus and Similar	0	18	4	16	3	204	0	19	1	22	1	132	0	1	421	0,6%																																																																																																																																																																																																																																																																													
	Hotels and Turistic Premises	1	10	9	6	5	74	1	4	2	8	1	29	16	1	167	0,2%																																																																																																																																																																																																																																																																													
	Places for Professional and Craft Activities	0	7	2	8	0	74	0	2	2	5	4	43	0	0	147	0,2%																																																																																																																																																																																																																																																																													
	Hospital / clinics /ambulatories	0	6	1	16	8	77	0	1	2	11	2	17	1	0	142	0,2%	Residential Places and Homes	Private flats and Homes	28	1.337	141	758	373	12.614	49	404	122	680	159	5.938	5	313	22.921	32,7%		Generic Building	40	1.079	156	759	475	12.260	26	827	115	644	137	3.988	10	233	20.749	29,6%		Others	20	32	29	34	12	418	16	79	15	9	8	162	0	0	834	1,2%		Private Parkings	4	25	11	25	6	157	2	4	3	8	2	89	0	2	338	0,5%	Agricultural and Farming Places	Storage Buidings	0	25	59	83	3	84	2	7	1	21	21	117	0	0	423	0,6%		Agricultural Building	2	17	25	35	0	54	2	11	1	6	8	106	0	0	267	0,4%		Rural Areas	13	5	8	13	1	77	46	4	0	3	2	47	2	0	221	0,3%	Traffic and Parking Areas	Urban Roads and Squares	965	61	60	170	47	3.520	320	116	402	153	36	612	11	7	6.480	9,2%		Extraurban Roads	145	6	14	20	5	663	512	4	33	5	5	133	19	0	1.564	2,2%		Inner Yard of Buildings	59	5	14	17	2	268	19	3	5	7	0	81	0	1	481	0,7%		Bridges and Highways	14	1	1	12	0	286	6	0	0	1	2	84	0	0	407	0,6%		Gardens	9	0	1	3	0	113	5	0	0	0	0	18	0	1	150	0,2%	Other Places	Others	13	6	3	9	4	148	21	5	2	1	1	33	2	0	248	0,4%	*	*	130	182	50	202	196	3.460	94	366	159	139	46	1.333	6	82	6.445	9,2%	TOTAL:																95,5%
Residential Places and Homes	Private flats and Homes	28	1.337	141	758	373	12.614	49	404	122	680	159	5.938	5	313	22.921	32,7%																																																																																																																																																																																																																																																																													
	Generic Building	40	1.079	156	759	475	12.260	26	827	115	644	137	3.988	10	233	20.749	29,6%																																																																																																																																																																																																																																																																													
	Others	20	32	29	34	12	418	16	79	15	9	8	162	0	0	834	1,2%																																																																																																																																																																																																																																																																													
	Private Parkings	4	25	11	25	6	157	2	4	3	8	2	89	0	2	338	0,5%	Agricultural and Farming Places	Storage Buidings	0	25	59	83	3	84	2	7	1	21	21	117	0	0	423	0,6%		Agricultural Building	2	17	25	35	0	54	2	11	1	6	8	106	0	0	267	0,4%		Rural Areas	13	5	8	13	1	77	46	4	0	3	2	47	2	0	221	0,3%	Traffic and Parking Areas	Urban Roads and Squares	965	61	60	170	47	3.520	320	116	402	153	36	612	11	7	6.480	9,2%		Extraurban Roads	145	6	14	20	5	663	512	4	33	5	5	133	19	0	1.564	2,2%		Inner Yard of Buildings	59	5	14	17	2	268	19	3	5	7	0	81	0	1	481	0,7%		Bridges and Highways	14	1	1	12	0	286	6	0	0	1	2	84	0	0	407	0,6%		Gardens	9	0	1	3	0	113	5	0	0	0	0	18	0	1	150	0,2%	Other Places	Others	13	6	3	9	4	148	21	5	2	1	1	33	2	0	248	0,4%	*	*	130	182	50	202	196	3.460	94	366	159	139	46	1.333	6	82	6.445	9,2%	TOTAL:																95,5%																																																																								
Agricultural and Farming Places	Storage Buidings	0	25	59	83	3	84	2	7	1	21	21	117	0	0	423	0,6%																																																																																																																																																																																																																																																																													
	Agricultural Building	2	17	25	35	0	54	2	11	1	6	8	106	0	0	267	0,4%																																																																																																																																																																																																																																																																													
	Rural Areas	13	5	8	13	1	77	46	4	0	3	2	47	2	0	221	0,3%	Traffic and Parking Areas	Urban Roads and Squares	965	61	60	170	47	3.520	320	116	402	153	36	612	11	7	6.480	9,2%		Extraurban Roads	145	6	14	20	5	663	512	4	33	5	5	133	19	0	1.564	2,2%		Inner Yard of Buildings	59	5	14	17	2	268	19	3	5	7	0	81	0	1	481	0,7%		Bridges and Highways	14	1	1	12	0	286	6	0	0	1	2	84	0	0	407	0,6%		Gardens	9	0	1	3	0	113	5	0	0	0	0	18	0	1	150	0,2%	Other Places	Others	13	6	3	9	4	148	21	5	2	1	1	33	2	0	248	0,4%	*	*	130	182	50	202	196	3.460	94	366	159	139	46	1.333	6	82	6.445	9,2%	TOTAL:																95,5%																																																																																																																														
Traffic and Parking Areas	Urban Roads and Squares	965	61	60	170	47	3.520	320	116	402	153	36	612	11	7	6.480	9,2%																																																																																																																																																																																																																																																																													
	Extraurban Roads	145	6	14	20	5	663	512	4	33	5	5	133	19	0	1.564	2,2%																																																																																																																																																																																																																																																																													
	Inner Yard of Buildings	59	5	14	17	2	268	19	3	5	7	0	81	0	1	481	0,7%																																																																																																																																																																																																																																																																													
	Bridges and Highways	14	1	1	12	0	286	6	0	0	1	2	84	0	0	407	0,6%																																																																																																																																																																																																																																																																													
	Gardens	9	0	1	3	0	113	5	0	0	0	0	18	0	1	150	0,2%	Other Places	Others	13	6	3	9	4	148	21	5	2	1	1	33	2	0	248	0,4%	*	*	130	182	50	202	196	3.460	94	366	159	139	46	1.333	6	82	6.445	9,2%	TOTAL:																95,5%																																																																																																																																																																																																																								
Other Places	Others	13	6	3	9	4	148	21	5	2	1	1	33	2	0	248	0,4%	*	*	130	182	50	202	196	3.460	94	366	159	139	46	1.333	6	82	6.445	9,2%	TOTAL:																95,5%																																																																																																																																																																																																																																										
*	*	130	182	50	202	196	3.460	94	366	159	139	46	1.333	6	82	6.445	9,2%	TOTAL:																95,5%																																																																																																																																																																																																																																																												
TOTAL:																95,5%																																																																																																																																																																																																																																																																														

(*). Rescue event report still open, data partially inserted.

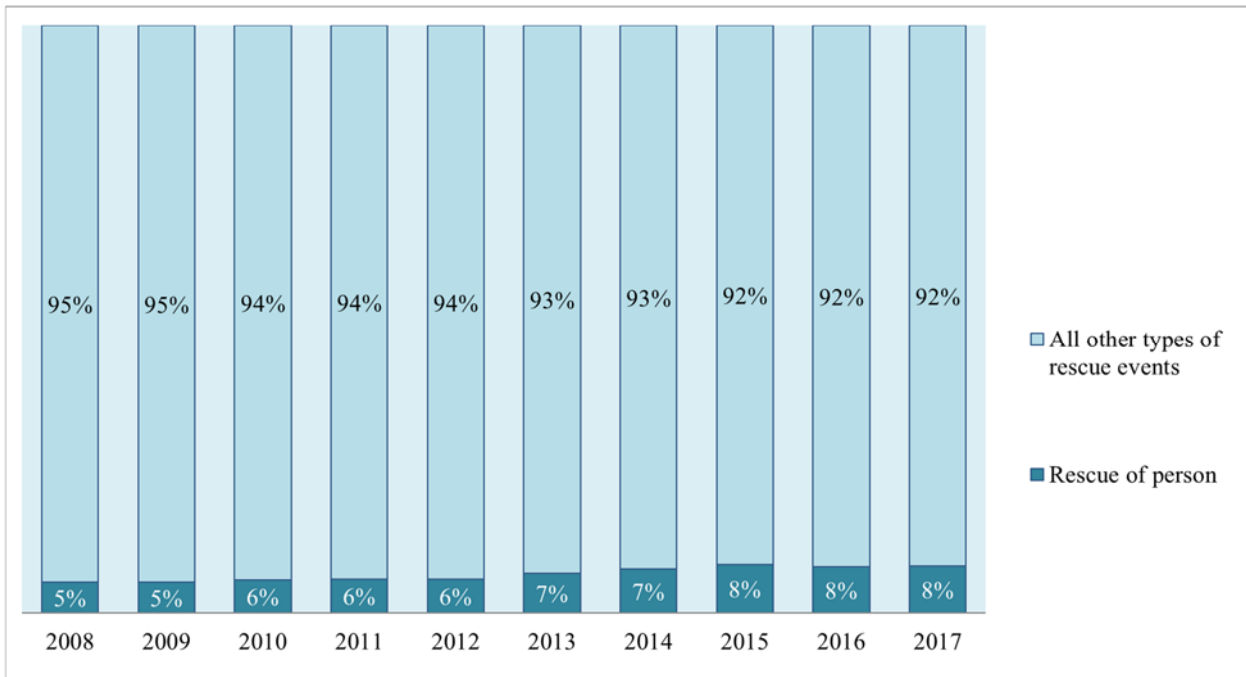
Table 6 – Distribution and Percentage values of interventions by categories of Place of Occurance and sub categories of “Safety and Stability of Buildings”

4.2.4 Rescue of People

In this paragraph, some statistical reports regarding the “Rescue of People” are given.

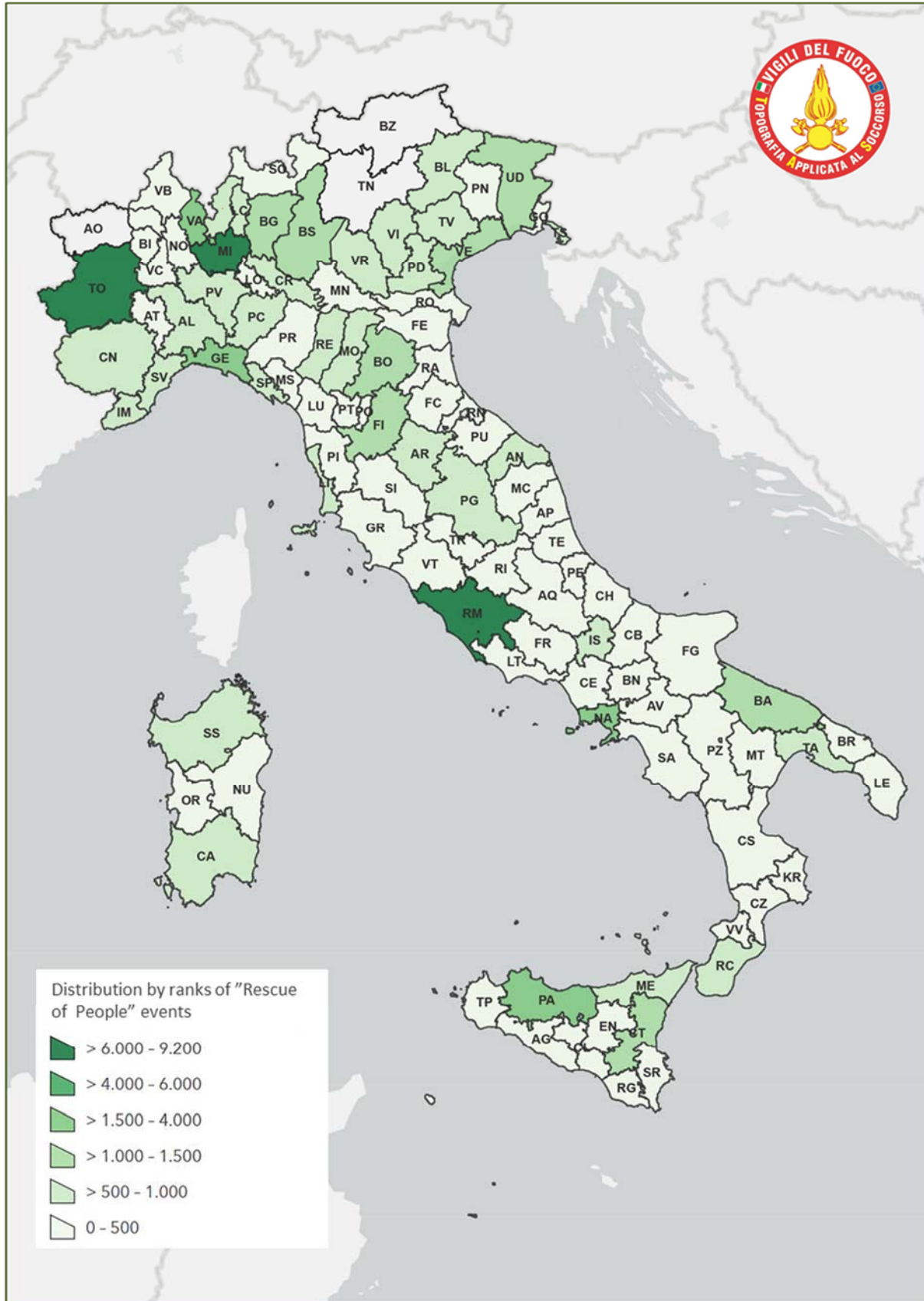


Picture 17 – Evolution of interventions for the “Rescue of People” from 2008 to 2017.



Picture 18 –Percentage, year by year, of the type “Rescue of People”, vs. the total amount of interventions (2008-2017).

The following picture shows the geographic distribution, at provincial level, by ranks of the "Rescue of People" type interventions, carried out in 2017.



Picture 19 –Distribution of interventions by rank, at provincial level in 2017, for the "Rescue of People" type.

The following table shows the causes, distribution, with details related to Rescue of People interventions, taking in account only the causes with frequency higher than 0.2%. The application of this filter has reduced the number of listed causes from 90 to 29, giving anyway an overview on 98.3% of all interventions of this type. The Percentage value has been calculated vs. the whole amount of events of this type (n° 79.369) in the year 2017.

CAUSE	DETAIL OF THE CAUSE	Rescue of person		
		No.	%	
Causes provoking Water Damages	Snow , Hail	894	1,1%	
	Rain	343	0,4%	
	Floodings	179	0,2%	
	Strong Wind , Storms etc.	176	0,2%	
Causes provoking Statical Unsafe Conditions	Severe Weather Conditions	354	0,4%	
Causes provoking need of Rescue to Persons	Illness	12.162	15,3%	
	Fall from Heights	10.193	12,8%	
	Other	5.705	7,2%	
	Missing People	3.874	4,9%	
	Not Being Possible to Evaluate	1.703	2,1%	
	Attempt to Suicide	1.678	2,1%	
	Mental Illness / Loss of Self Consciousness	1.033	1,3%	
	Trasportation of Over Weight Person or not Self Sufficient	932	1,2%	
	Arrest of Elevator	634	0,8%	
	Forced Sanitary Assistance prescribed by Law	428	0,5%	
	Drownings	415	0,5%	
	Road Accident	340	0,4%	
	Accident on Working Place	317	0,4%	
	Causes of Accident of Transportation Means	Lack of Attention	381	0,5%
	Cause of Fire Ignition	Other	239	0,3%
Causes of Other Types of Intervention	Others	4.397	5,5%	
	Unforeseen Causes	3.168	4,0%	
	Dangers for People located Indoor	2.270	2,9%	
	Door Lock blocked (no Burglary)	1.619	2,0%	
	General Lack of Attention	1.552	2,0%	
	Bad Working of Plants and or Machinery	624	0,8%	
	Collaboration with Security and Police Forces	381	0,5%	
Not Being Possible to Evaluate	Not Being Possible to Evaluate	13.027	16,4%	
*	*	8.993	11,3%	
Total		98,3%		

(*) Rescue event report still open, data partially inserted.

Table 7 – Causes with frequency higher than 0.2% on the whole amount of the “Rescue of People” type

Followingly the table “Detail on Places - Rescue of People type”, where only places with frequency of occurring higher than 0.2% are reported. The application of this filter has reduced the number of places from 187 to 28, giving anyway a representation of the 96.3% of the events. This Percentage values have been calculated vs. the total number of “Rescue of People” events for the year 2017 (n. 79.369).

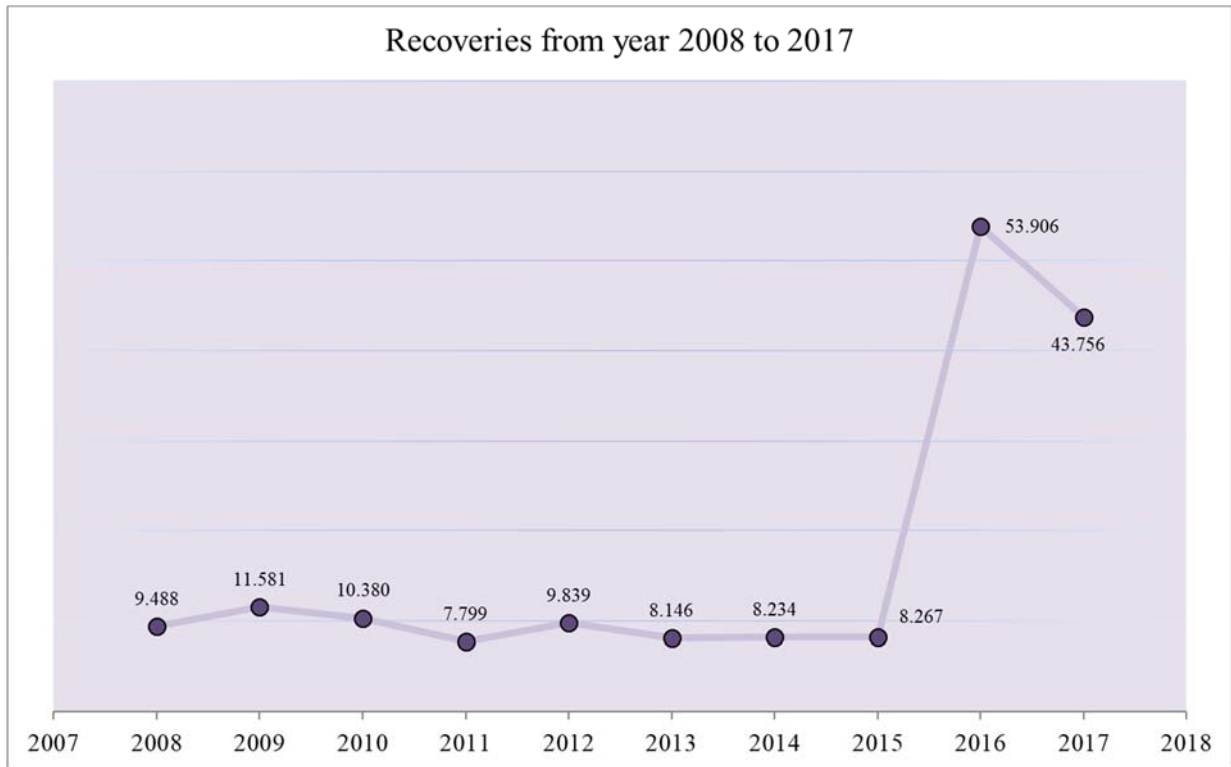
PLACE	DETAIL OF THE PLACE	Rescue of person	
		No.	%
Places for Specific Uses	Hospital / clinics /ambulatories	557	0,7%
	Others	238	0,3%
	Hotels and Turistic Premises	164	0,2%
	Banks, Bureaus and Similar	159	0,2%
Agricultural and Farming Places	Forest and Woods	2.532	3,2%
	Rural Areas	1.125	1,4%
	Fields	807	1,0%
	Tree Covered Areas	228	0,3%
	Others	221	0,3%
Residential Places and Homes	Private flats and Homes	47.535	59,9%
	Generic Building	2.779	3,5%
	Others	653	0,8%
	Elevator Devices Rooms	264	0,3%
	Private Parkings	203	0,3%
Traffic and Parking Areas	Urban Roads and Squares	2.816	3,5%
	Extraurban Roads	1.138	1,4%
	Out door Parking	338	0,4%
	Bridges and Highways	259	0,3%
	Inner Yard of Buildings	216	0,3%
	Others	162	0,2%
Mountain Areas	Others	1.028	1,3%
	Cliffs, Rocks and Seashores Front	362	0,5%
Other Places	River and Inland Water	1.717	2,2%
	Seashore Areas	660	0,8%
	Others	643	0,8%
	Lakes and Basins	559	0,7%
	Harbour Areas	160	0,2%
*	*	8.929	11,2%
Total		96,3%	

(*) *Rescue event report still open, data partially inserted.*

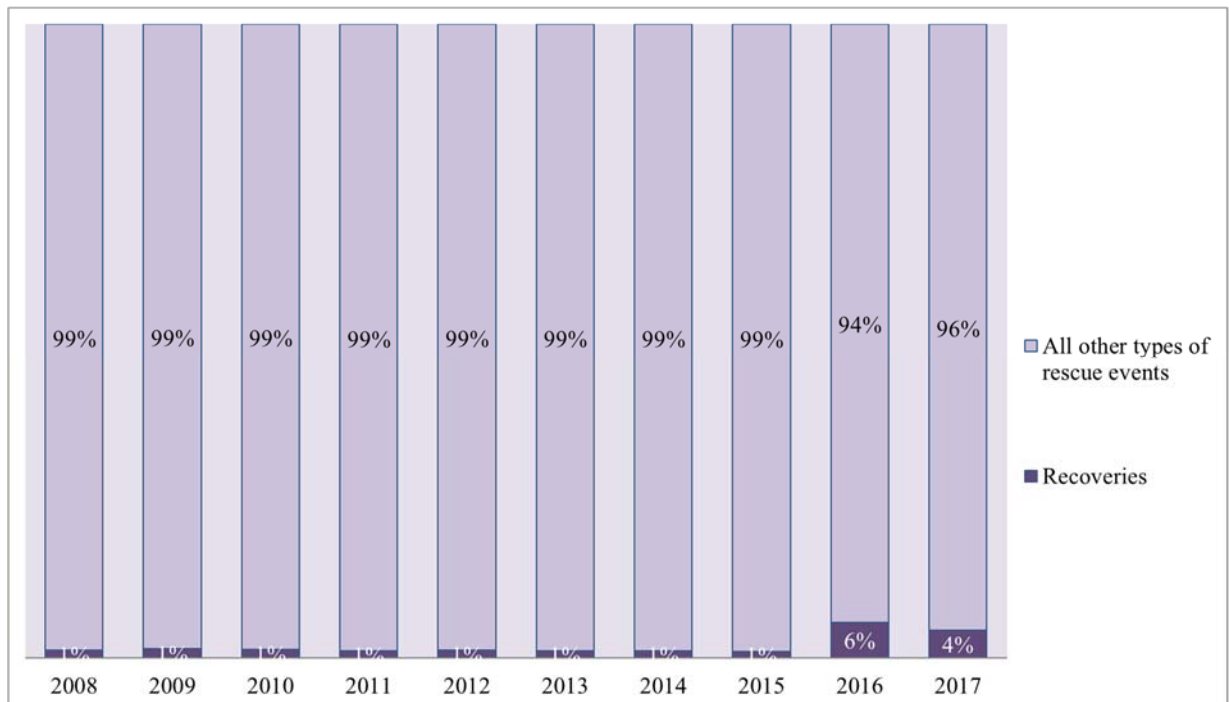
Table 8 – Places with frequency of occurring higher than 0.2%.

4.2.5 Recoveries

Being the safeguard of the material goods an institutional task of the Fire Brigades- in this paragraph, some statistical reports regarding this kind of activities, - collected in the “Recoveries” type - are given.



Picture 20 –Evolution of interventions for the “Recoveries” type from 2008 to 2017.



Picture 21 –Percentage, year by year, of the “Recoveries” type vs. the total amount of interventions (2008-2017).

In this table, the details follow for the “Recoveries” type, for the years 2015, 2016 and 2017 are reported. The influence of the seismic events of 2016 are at origin at the huge increase of activities after 2015.

DETAIL OF THE TYPES OF RECOVERY	No. rescue events for Recovery		
	2015	2016	2017
Recoveries of Goods and Commercial Items	6.384	45.086	29.628
Recoveries of Animals	406	6.098	6.216
Recoveries of Cars and Vehicles	2	936	6.191
Recoveries of Corpse	836	798	711
Recoveries of Dead Animals	402	468	427
Recoveries of Dangerous Substances	45	294	302
Recoveries of Rotten Goods	0	129	200
Recoveries of Radioactive Materials	144	82	78
Recoveries of Radioactive Lighting Protections	6	8	3
Recoveries of Various Detection Means	42	7	0
Total year:	8.267	53.906	43.756

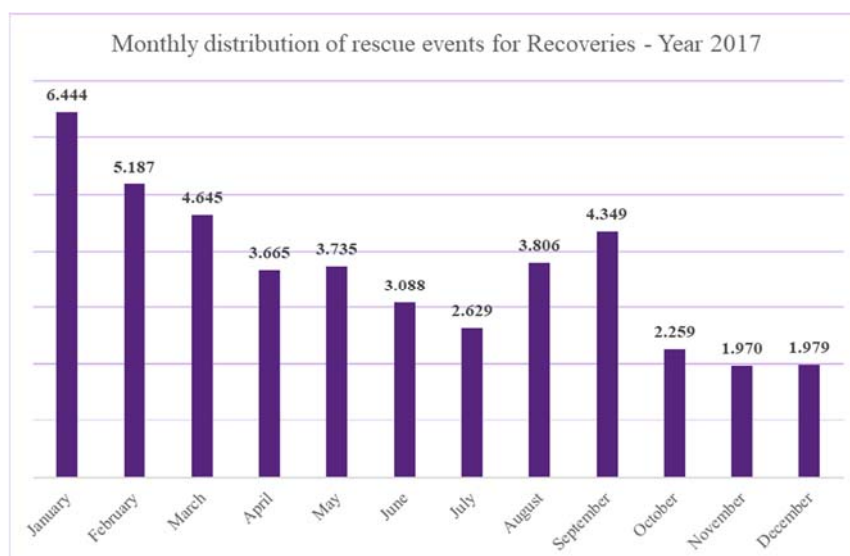
Table 9 – Distribution within subcategories of the “Recoveries” type.

The first 7 provinces that have registered the highest increase of intervention in the period 2016-2017 compared 2013-2015, for the “Recoveries” type, and for which this kind of interventions has registered a value higher than the 2% of the whole, are reported in the following table.

PROVINCE OF RESCUE EVENTS	No. rescue events for Recovery			% variation from (average 2013-2015) to 2016	% variation from (average 2013-2015) to 2017
	AVERAGE 2013-2015	2016	2017		
Macerata	111	19.088	13.504	17096,4%	12066%
Napoli	90	181	4.190	100,4%	4538%
Ascoli Piceno	81	5.539	1.867	6710,2%	2195%
Teramo	106	495	1.656	367,0%	1462%
Perugia	369	8.101	5.138	2093,4%	1291%
Rieti	123	7.062	1.004	5657,1%	718%
L'Aquila	149	170	967	14,1%	549%

Table 10 – Provinces with the highest Percentage increase of interventions, concerning recoveries, on the average value for the years 2016-2017, compared to the years 2013-2015.

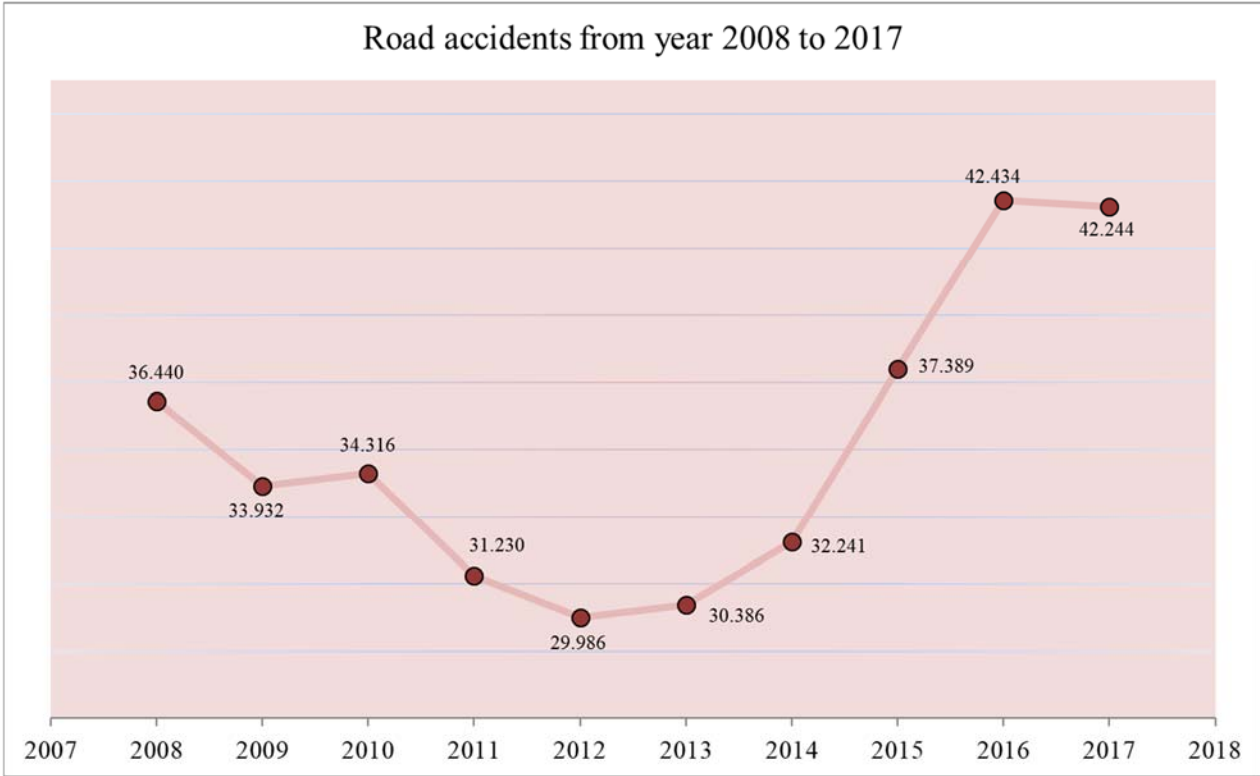
The following chart shows the monthly distribution of the “Recoveries” type of rescue events for the year 2017.



Picture 22 – Distribution of interventions for “Recoveries” type by month.

4.2.6 Road Accidents

In this paragraph, some statistical reports regarding the “Road Accidents” are given.

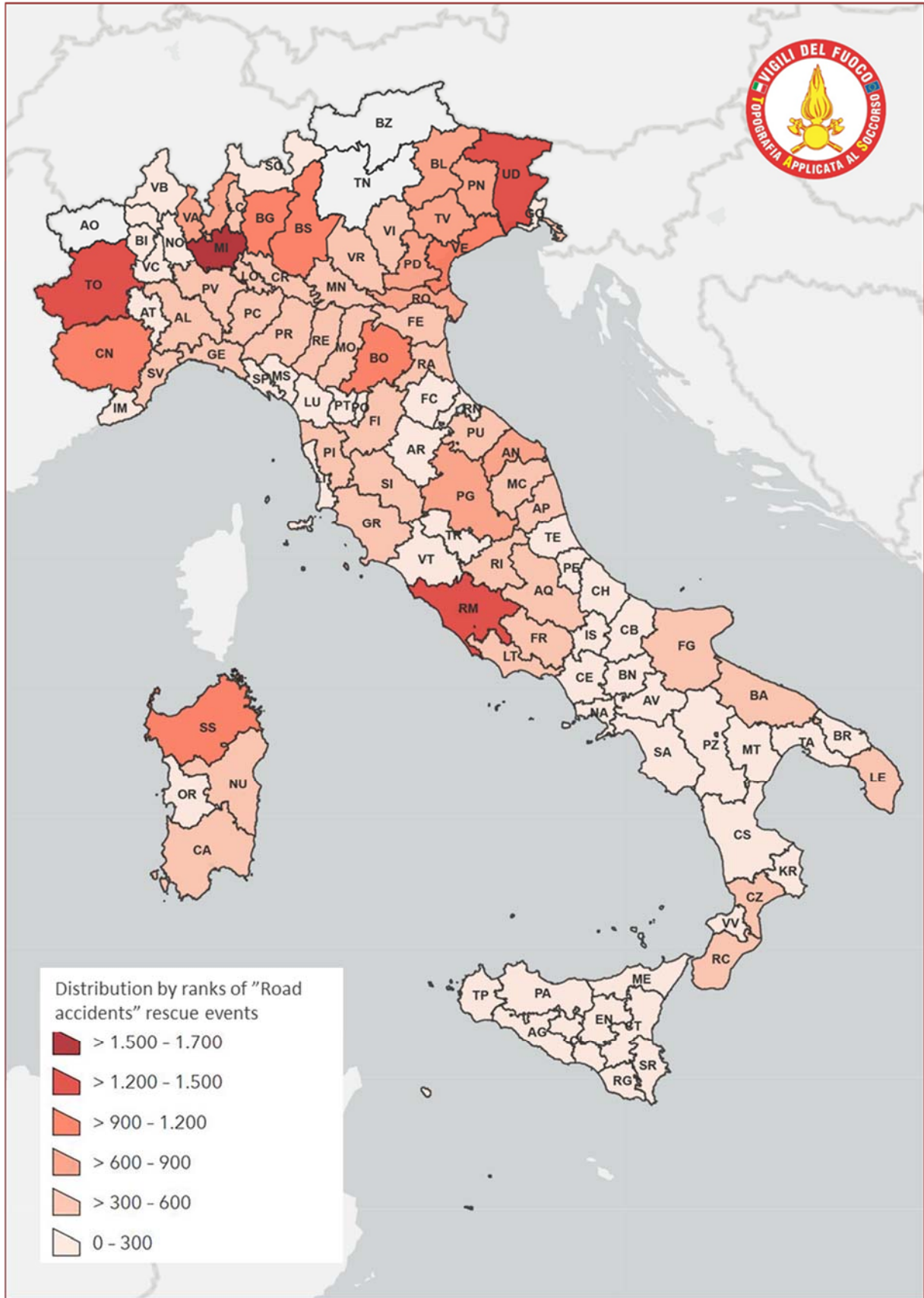


Picture 23 –Evolution of interventions for the “Road accidents” from 2008 to 2017.



Picture 24 – Percentage of intervention, year by year, of the type “Road accidents”, vs. the total amount of interventions.

The following map shows the distribution of the “Road Accident” type, carried out at provincial level in 2017.



Picture 25 – Distribution of interventions by rank, at provincial level in 2017, for the "Road accidents" type.

Followingly, the table “Detail on Causes – Type of Intervention” shows the distribution of casuses with frequency of occurring higher than 0.1%. The application of this filter has reduced the causes from 73 to 29, giving anyway a representation of 99.2% of the events. The Percentaget value has been calculated on the whole amount of accidents of this type (n.42.244).

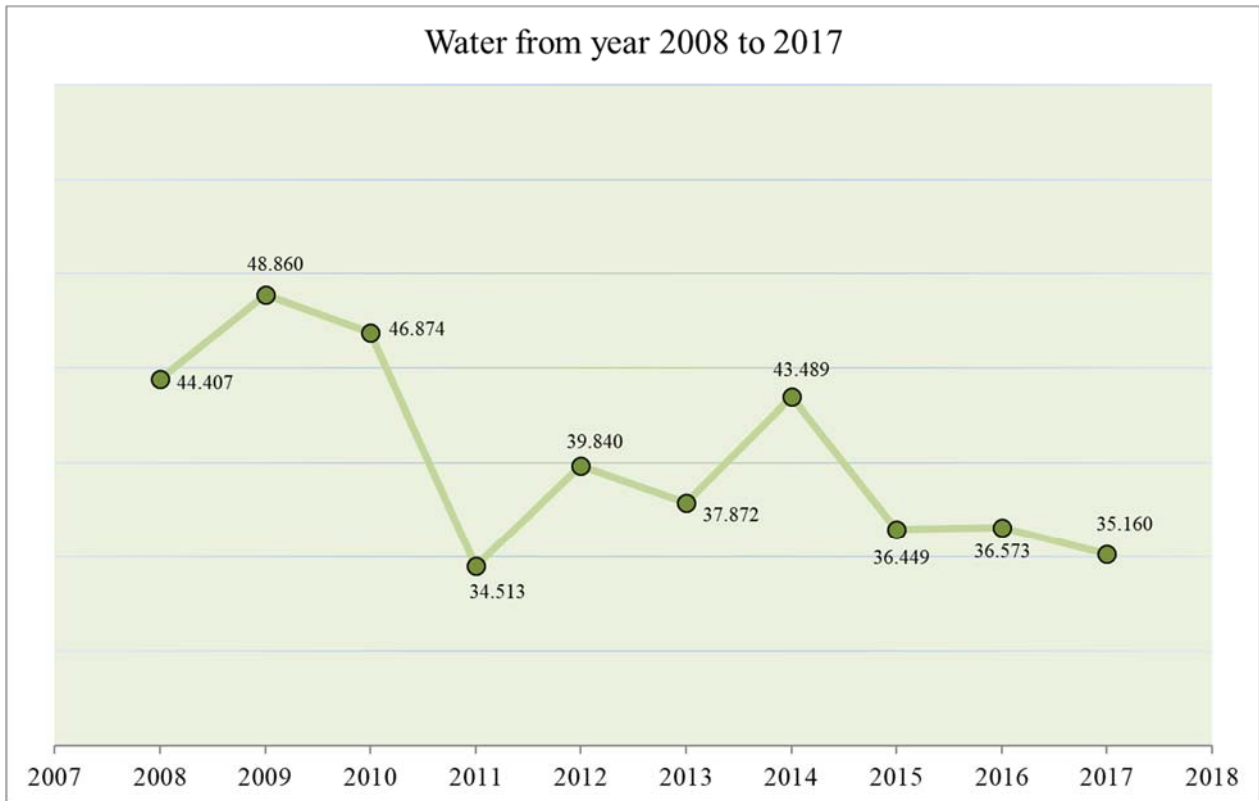
CAUSE	DETAIL OF THE CAUSE	Road accidents					Total by cause	
		Road Accident involving Vehicle transporting Dangerous Goods	Generic Road Accident	Tunnel Accident	Capsizing of Vehicles transporting Dangerous Goods	Removal of Hinders not provoked by Traffic	No. Rescue events	%
Causes provoking Water Damages	Strong Wind , Storms etc.	0	27	1	1	1.220	1.249	3,0%
	Snow , Hail	1	153	1	0	264	419	1,0%
	Rain	0	64	0	0	110	174	0,4%
	Others	0	46	0	0	25	71	0,2%
Causes provoking Statical Unsafe Conditions	Severe Weather Conditions	1	40	0	0	496	537	1,3%
	Age	0	1	0	1	228	230	0,5%
	Shocks	0	69	0	0	33	102	0,2%
	Other	0	16	0	0	49	65	0,2%
	Ground Collapse and/or Unexpected Caves	0	23	0	0	41	64	0,2%
Causes provoking need of Rescue to Persons	Heartquakes	0	0	0	1	46	47	0,1%
	Road Accident	37	5.327	15	6	49	5.434	12,9%
	Not Being Possible to Evaluate	1	253	0	0	7	261	0,6%
	Illness	0	175	0	0	0	175	0,4%
	Run Over of Pedestrian or Similar	0	113	0	0	7	120	0,3%
Causes of Accident of Transportation Means and Vehicles	Other	0	87	0	0	8	95	0,2%
	Crashes	29	10.305	38	0	56	10.428	24,7%
	Others	18	2.983	12	5	76	3.094	7,3%
	Capsizing of the Vehicles / Loss of Transported Material	25	2.271	5	32	46	2.379	5,6%
	Lack of Attention	4	1.579	7	2	62	1.654	3,9%
	Slippery Road Pavement	2	572	0	2	18	594	1,4%
	Hinders on the Road	0	114	1	0	101	216	0,5%
High Speed	1	196	1	3	3	204	0,5%	
Cause of Fire Ignition	Other	1	48	0	1	25	75	0,2%
Malicious / Intentional Causes	Probably Fault Originated Causes	0	56	0	0	6	62	0,1%
Not Being Possible to Evaluate	Not Being Possible to Evaluate	21	9.487	30	15	515	10.068	23,8%
Causes of Other Types of Intervention	Others	4	572	0	1	174	751	1,8%
	Unforeseen Causes	1	356	5	1	155	518	1,2%
	General Lack of Attention	0	214	0	0	29	243	0,6%
*	*	28	2.369	8	8	143	2.556	6,1%
TOTAL:								99,2%

(*) Rescue event report still open, data partially inserted.

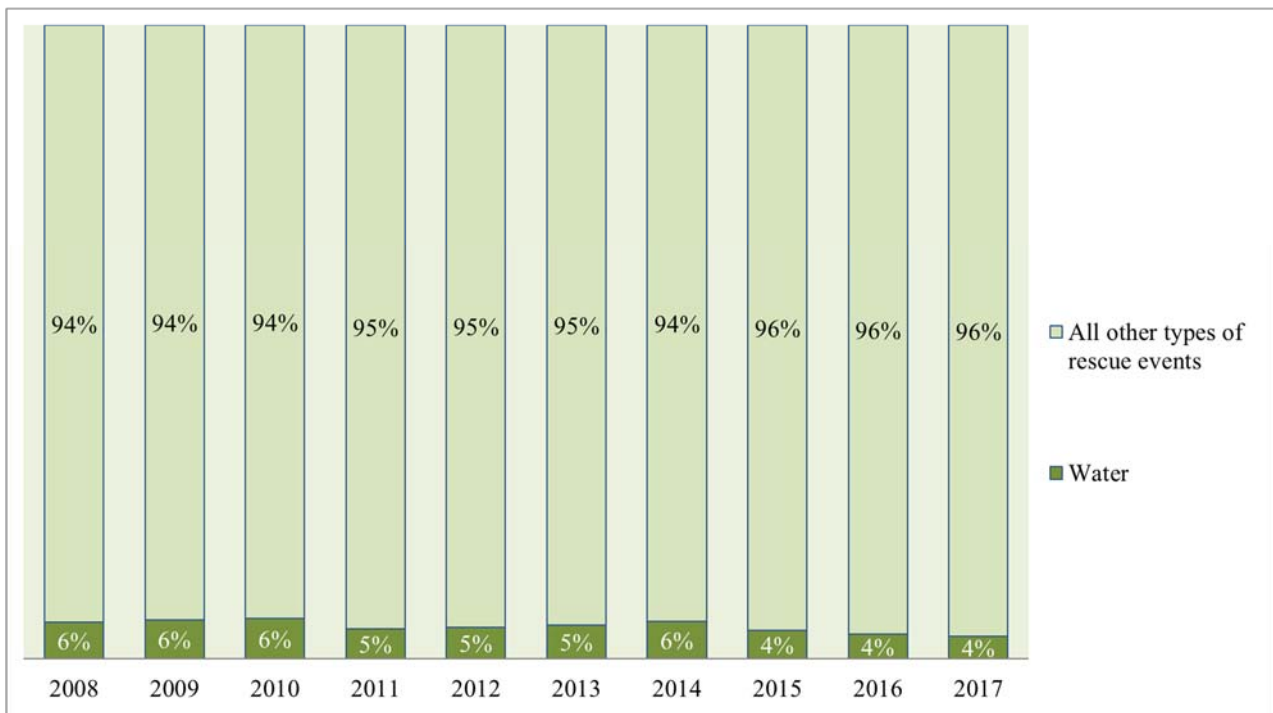
Table 11 – Causes with frequency higher than 0.1% within the “Road Accident” type

4.2.7 Water accidents

In this paragraph, some statistical reports regarding events related to water accidents have been collected and named by the “Water” type of interventions are.



Picture 26 – Evolution of interventions for the “Water” from 2008 to 2017.



Picture 27 – Percentage, year by year, of the type “Water”, vs. the total amount of interventions.

Followingly, the table “Detail on Causes” for the “Water” intervention type shows the distribution of causes with frequency of occurring higher than 0.2%. The application of this filter has reduced the causes from 73 to 25, giving anyway a representation of 98.6% of the events. The percentage value has been calculated on the whole amount of accidents of this type (n. 35.160).

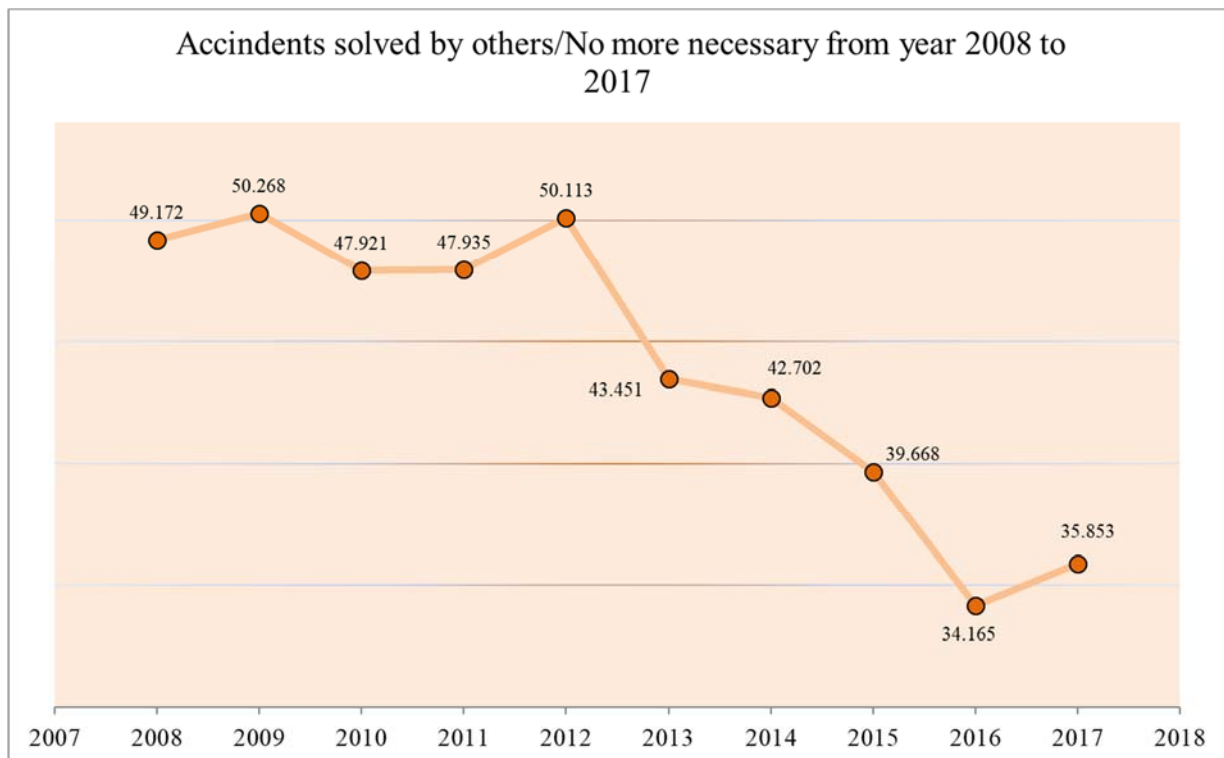
CAUSE	DETAIL OF THE CAUSE	Water					Total by cause	
		Generic Water Damages	Outlet of Waters from Ducts, Pipes or Vessels	Drainings (generic)	Water refueling	Floods and Water Overwhelmings	No. Rescue events	%
Causes provoking Water Damages	Collapse of Pipes and Plants	8.503	1.731	291	98	2	10.625	30,2%
	Rain	2.866	203	1.041	2	82	4.194	11,9%
	Others	1.628	231	125	49	13	2.046	5,8%
	Floodings	317	67	130	2	112	628	1,8%
	Collapse of Heating Devices and/or Containers	538	52	7	0	0	597	1,7%
	Snow , Hail	343	81	60	33	5	522	1,5%
	Collapse of Sewer	351	77	23	0	1	452	1,3%
	Strong Wind , Storms etc.	241	24	64	2	4	335	1,0%
	Collapse of Pools and Tanks	156	23	12	14	0	205	0,6%
Misfunctioning of Household Appliances	109	12	3	0	0	124	0,4%	
Causes provoking Statical Unsafe Conditions	Water Inlet	2.608	210	158	1	4	2.981	8,5%
	Severe Weather Conditions	888	119	268	27	43	1.345	3,8%
	Age	366	59	7	2	2	436	1,2%
	Other	72	9	8	7	1	97	0,3%
	Heartquakes	27	8	5	46	0	86	0,2%
Causes of Accident of Transportation Means and Vehicles	Lack of Attention	70	14	4	0	0	88	0,3%
	Other	33	2	2	45	0	82	0,2%
Cause of Fire Ignition	Other	33	2	2	45	0	82	0,2%
Causes of Pollution and/or Losses	Collapse of Pipes	555	85	12	6	1	659	1,9%
Not Being Possible to Evaluate	Not Being Possible to Evaluate	2.944	458	133	218	8	3.761	10,7%
Causes of Other Types of Intervention	Others	927	172	59	206	4	1.368	3,9%
	Unforeseen Causes	683	107	43	33	4	870	2,5%
	General Lack of Attention	499	57	15	0	0	571	1,6%
	Bad Working of Plants and or Machinery	277	58	26	9	0	370	1,1%
	Lack of Drinkable Water	3	0	0	260	0	263	0,7%
*	*	1.439	162	203	118	32	1.954	5,6%
TOTAL:							98,6%	

(*) Rescue event report still open, data partially inserted.

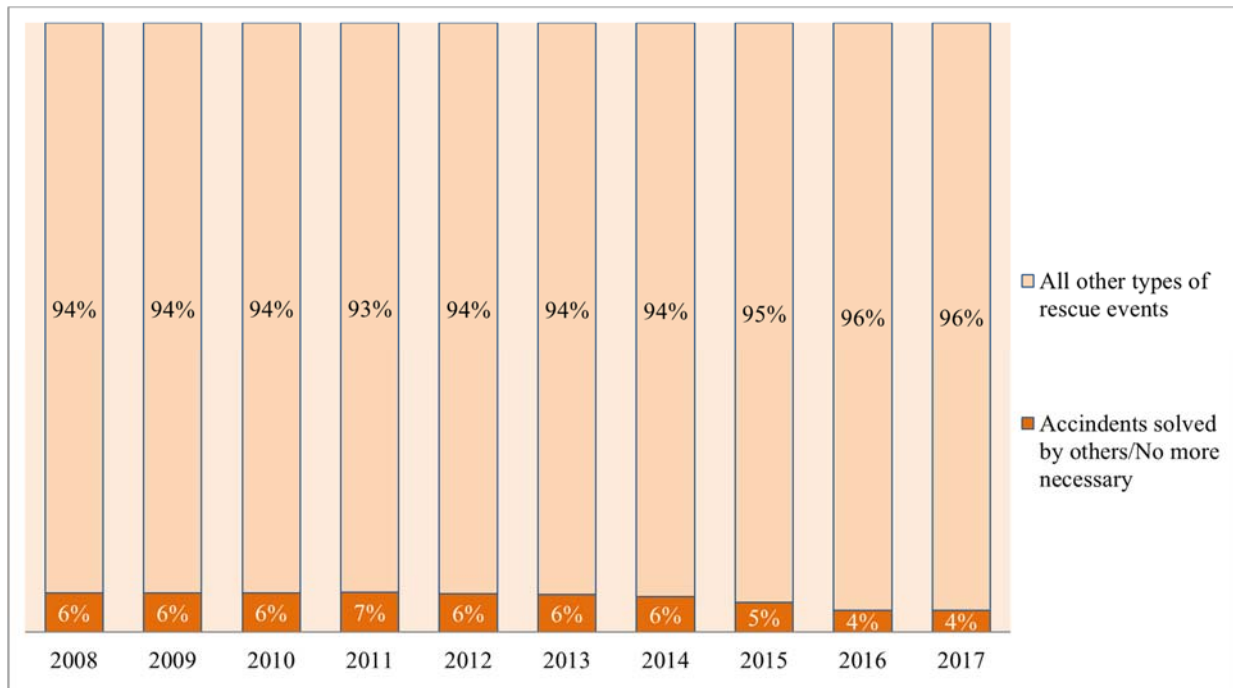
Table 12 –Causes with frequency higher than 0.2% for the “Water” type.

4.2.8 Intervention no longer required

In this paragraph, some statistical reports regarding the “Not longer required” events are given, meaning by this terms intervention that have been solved in different ways from actions conducted by firefighters.



Picture 28 – Evolution of the “No longer required” intervention type from 2008 to 2017.



Picture 29 – Percentage, year by year, of the type “No longer required”, vs. the total amount of interventions.

Followingly, the table “Detail on Places” for the “Not longer required” intervention type shows the distribution of places the first calls referred to, with frequency of occurring higher than 0.2%. The application of this filter has reduced the place of request of rescue from 180 to 26, giving anyway a representation of 95.9% of the events. The percentage value has been calculated on the whole amount of accidents of this type (n. 35.853).

PLACE	DETAIL OF THE PLACE	Accidents solved by others/ No more necessary	
		No. Rescue events	%
Places for Specific Uses	Hospital / clinics /ambulatories	143	0,4%
	Others	115	0,3%
	Schools	90	0,3%
Residential Places and Homes	Private flats and Homes	13818	38,5%
	Generic Building	2622	7,3%
	Others	753	2,1%
	Private Parkings	134	0,4%
	Elevator Devices Rooms	132	0,4%
Agricultural and Farming Places	Fields	2321	6,5%
	Rural Areas	1062	3,0%
	Forest and Woods	641	1,8%
	Others	179	0,5%
	Tree Covered Areas	158	0,4%
Traffic and Parking Areas	Urban Roads and Squares	5635	15,7%
	Extraurban Roads	2915	8,1%
	Highway and High Density Urban Roads	488	1,4%
	Inner Yard of Buildings	256	0,7%
	Others	168	0,5%
	Gardens	147	0,4%
	Out door Parking	133	0,4%
Mountain Areas	Others	78	0,2%
Other Places	Others	1021	2,8%
	Seashore Areas	120	0,3%
	River and Inland Water	114	0,3%
	Airport premises, Hangars and Airports	78	0,2%
*	*	1067	3,0%
TOTAL:			95,9%

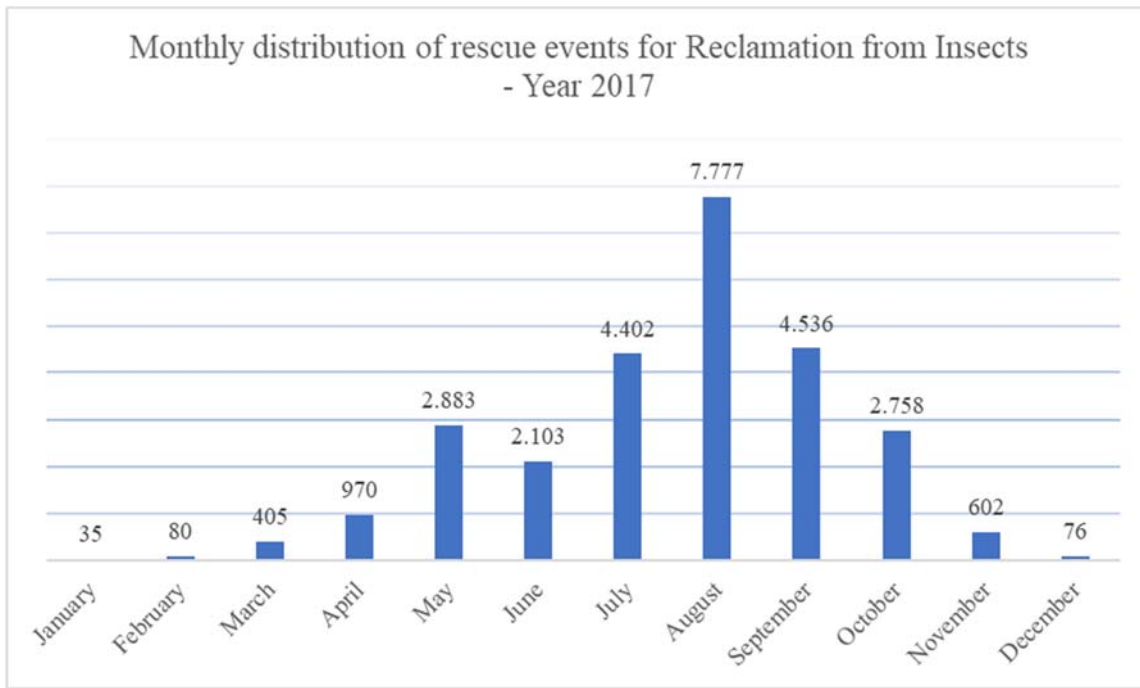
(*) Rescue event report still open, data partially inserted.

Table 13 – Places with request of intervention, with frequency higher than 0.2%, for the “no longer necessary” type

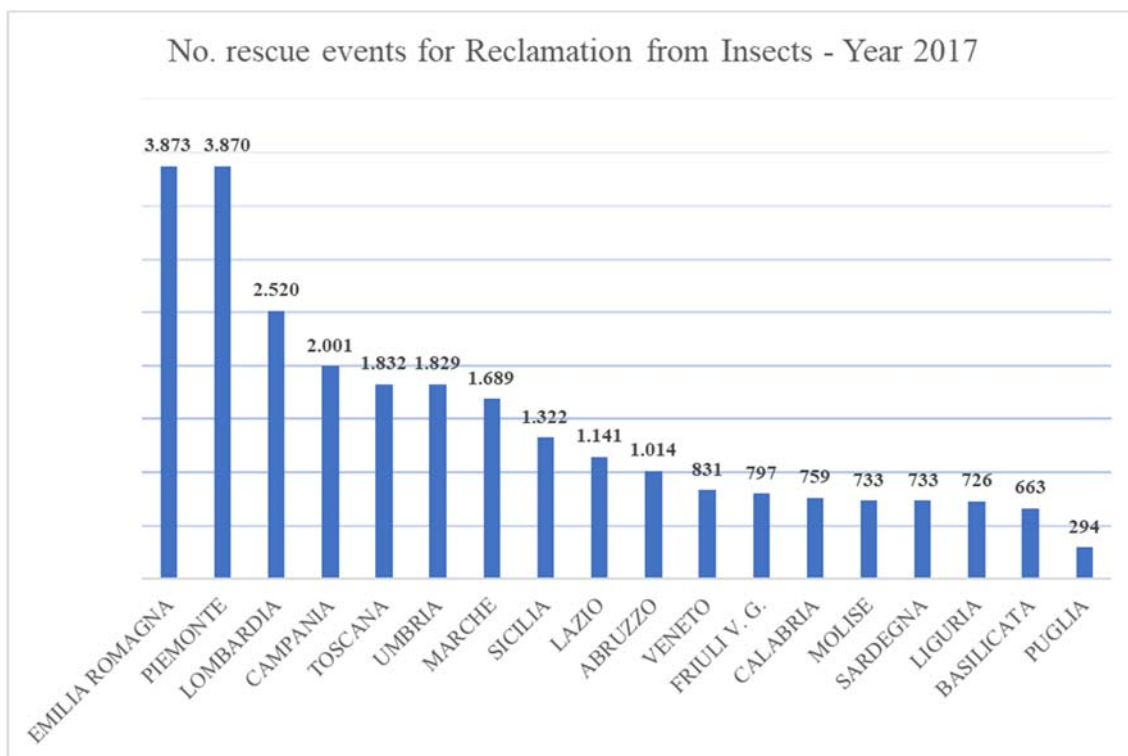
4.2.9 Clean Up from Insects

In this paragraph, some statistical reports regarding the “Clean Up from Insects” interventions are given.

The following pictures shows the evolution at monthly and regional distinction of interventions of this kind, conducted in 2017.

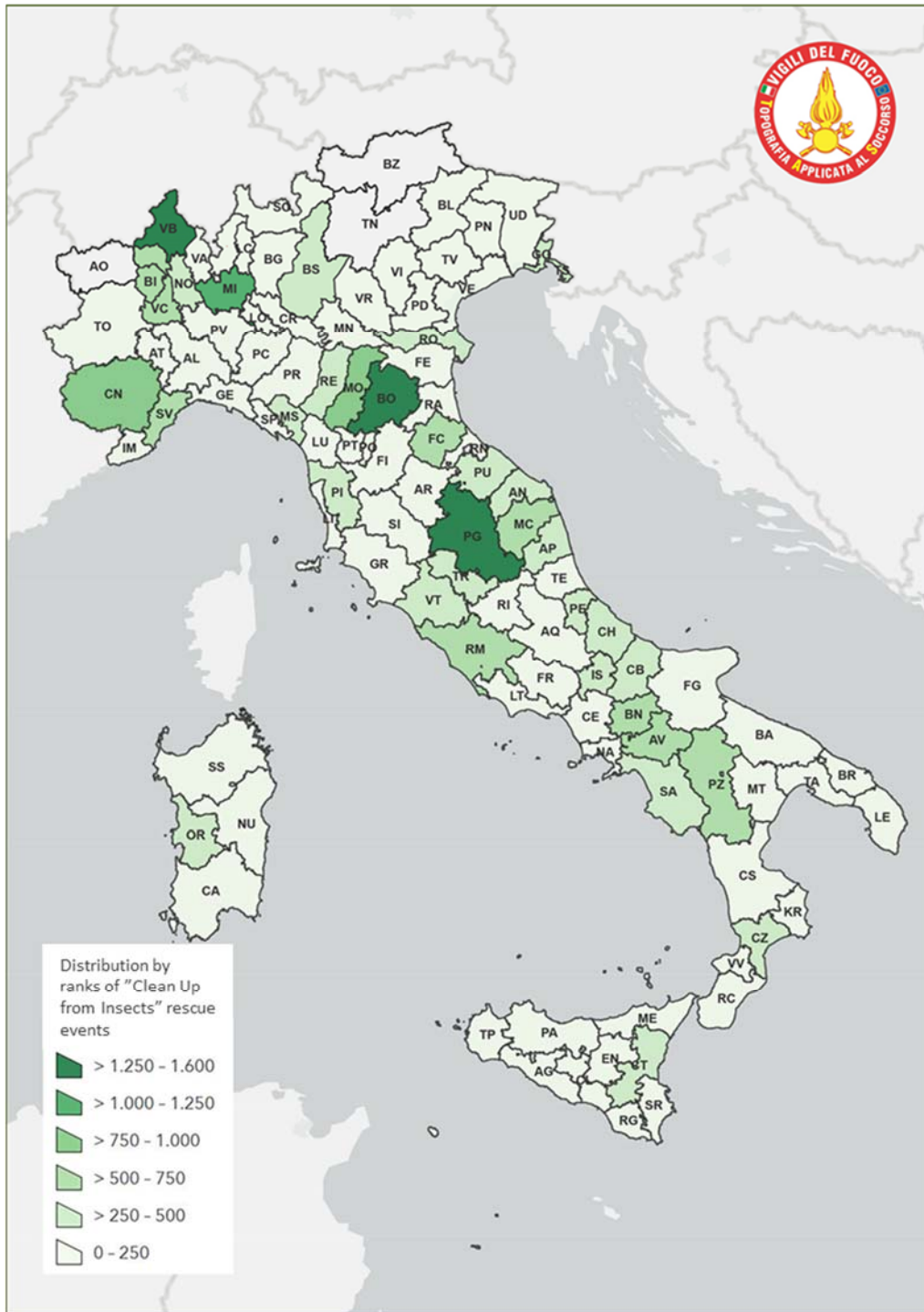


Picture 30 – Monthly trend of the intervention for “Clean Up for Insects”



Picture 31 –Distribution of intervention for “Clean Up from Insects” type by Region for the year 2017.

The following map shows the representation at provincial level of the distribution of interventions for the "Clean Up from Insects" type, in the year 2017.



Picture 32 – Distribution of interventions by rank, at provincial level in 2017, for the "Clean Up from Insects" type.

The first 15 provinces that have registered the highest increase of intervention for clean up from insects in the period 2016-2017 compared to the total number of the amount of the interventions conducted in their territory, are reported in the following table.

PROVINCIAL FIRE DEPARTMENT	No. Rescue events (2017)		% insects reclamation rescue events calculated with respect to the provincial total
	Reclamation from Insects	TOTAL	
VERBANO-CUSIO-OSSOLA	1.360	4.433	30,7%
BIELLA	534	2.909	18,4%
VERCELLI	513	3.419	15,0%
CUNEO	864	9.753	8,9%
ORISTANO	296	3.431	8,6%
MASSA	314	3.736	8,4%
MODENA	897	10.743	8,3%
TERNI	436	5.352	8,1%
CAMPOBASSO	447	5.563	8,0%
NOVARA	329	4.201	7,8%
FORLI'	564	7.226	7,8%
POTENZA	550	7.109	7,7%
BOLOGNA	1.516	20.106	7,5%
BENEVENTO	585	7.814	7,5%
SAVONA	541	7.708	7,0%

Picture 33 –Percentage distribution of the interventions for the “Clean Up from Insects“ type.

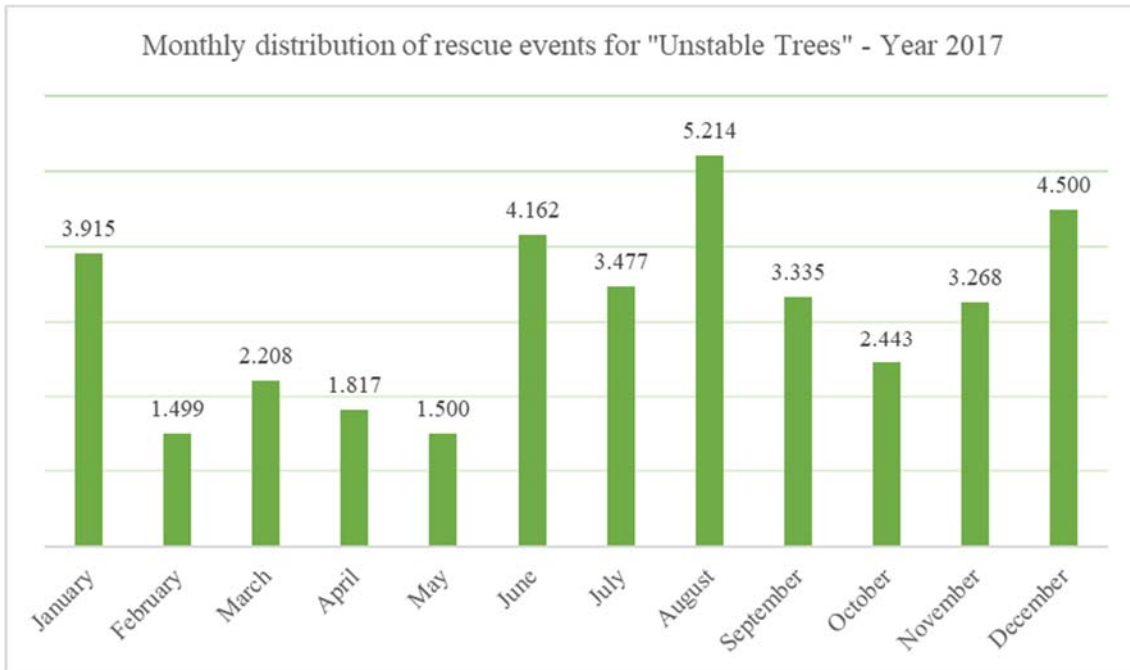
The first 15 provinces that have registered the highest amount of interventions in 2017, for the “Clean up from Insects” type, are reported in the following table.

PROVINCIAL FIRE DEPARTMENT	No. rescue events for Reclamation from Insects - Year 2017
BOLOGNA	1.516
PERUGIA	1.393
VERBANO-CUSIO-OSSOLA	1.360
MILANO	1.229
MODENA	897
CUNEO	864
MACERATA	596
BENEVENTO	585
AVELLINO	583
FORLI'	564
POTENZA	550
ROMA	542
SAVONA	541
BIELLA	534
VERCELLI	513

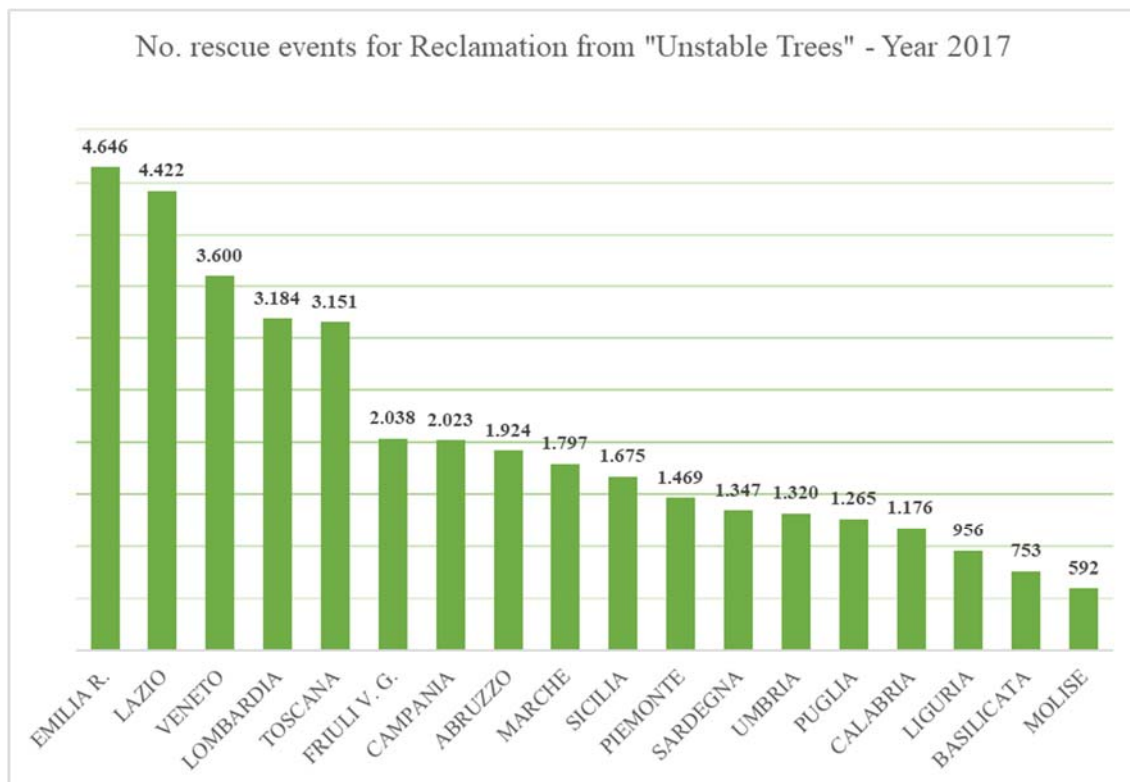
Picture 34 – Distribution at provincial level of intervention for the “Clean up from Insects” type.

4.2.10 Unstability of trees

In this paragraph, some statistical reports regarding the type “Unstable trees” interventions are given. The following pictures shows the evolution at monthly and regional distinction of interventions of this kind, conducted in 2017.



Picture 35 – Monthly evolution of intervention for “Unstable Trees” type.



Picture 36 – “Unstable Trees” intervention type by region.

The first 15 provinces that have registered the highest increase of interventions in 2017 compared to the whole amount for the “Unstable Trees” type occurred in their territory, are reported in the following table.

PROVINCIAL FIRE DEPARTMENT	No. rescue events (2017)		% Unstable Trees rescue events calculated with respect to the provincial total
	Unstable Trees	TOTAL	
ROVIGO	845	5.347	15,8%
FERRARA	824	6.505	12,7%
MASSA	377	3.736	10,1%
TERNI	533	5.352	10,0%
NUORO	632	6.497	9,7%
FORLI'	665	7.226	9,2%
RIMINI	434	4.955	8,8%
ISERNIA	369	4.218	8,7%
GORIZIA	342	4.052	8,4%
CHIETI	653	7.794	8,4%
RAVENNA	572	7.125	8,0%
VENEZIA	1.289	16.182	8,0%
PISA	536	7.172	7,5%
TRIESTE	638	8.621	7,4%
TREVISO	603	8.242	7,3%

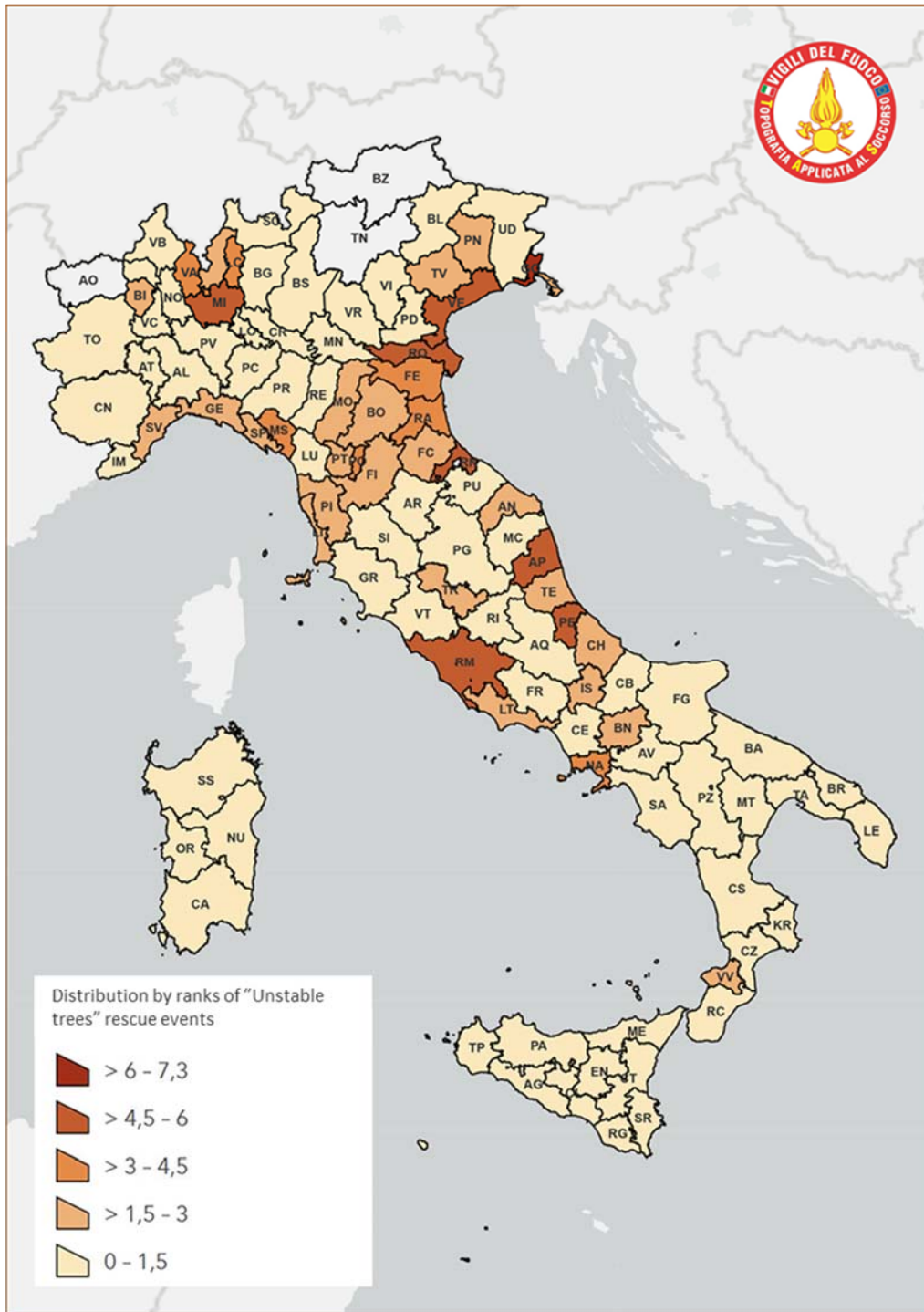
Picture 37 – Distribuzione % interventi “alberi pericolanti”. “Unstable Trees” type distribution

The first 15 provinces that have registered the highest number of interventions in 2017 for the “Unstable Trees” type, are reported in the following table.

PROVINCIAL FIRE DEPARTMENT	No. rescue events for "Unstable Trees" - Year 2017
ROMA	3.002
VENEZIA	1.289
BOLOGNA	1.030
ROVIGO	845
FERRARA	824
MILANO	800
PERUGIA	787
FORLI'	665
CHIETI	653
TRIESTE	638
NUORO	632
PESCARA	619
TREVISO	603
ASCOLI PICENO	603
UDINE	597

Picture 38 –Distribution at provincial level for “Unstable Trees” type.

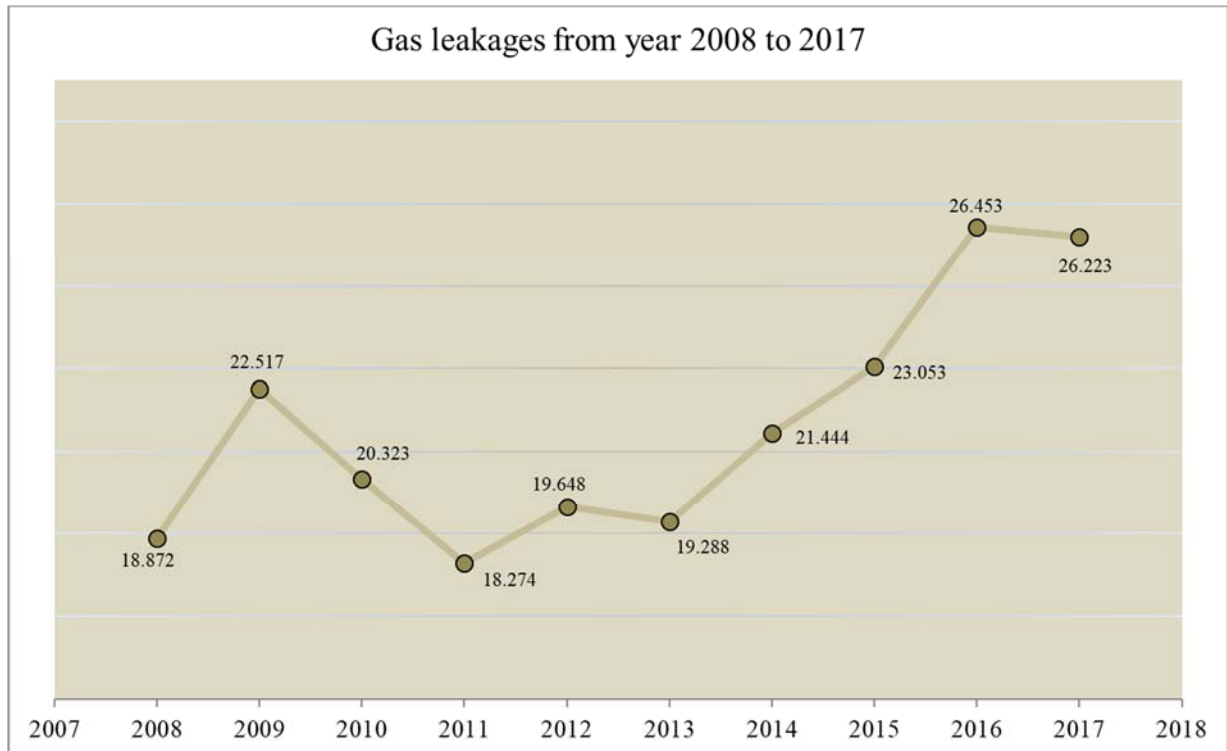
In the following picture the graphical representation of number of interventions for each 10 square kilometer surface is given, for the “Unstable trees“ type, in the year 2017.



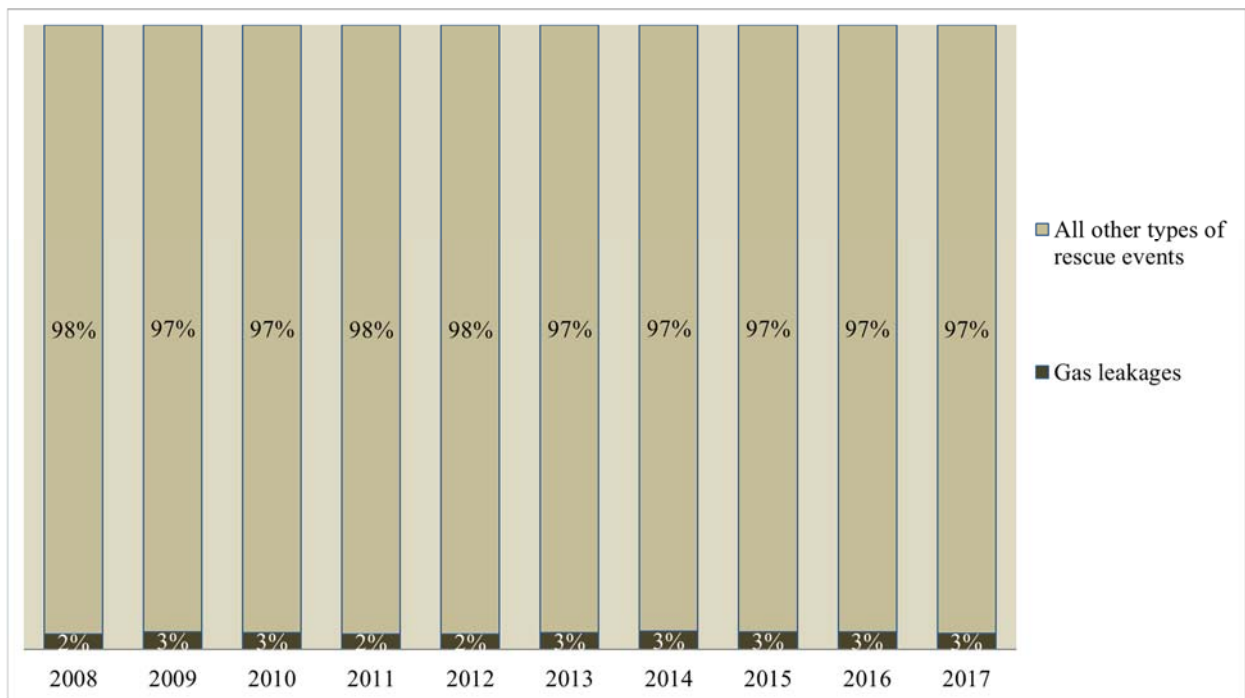
Picture 39 – Distribution of interventions, at provincial level in 2017, for the "Unstable trees" type, conducted for each 10 square kilometers.

4.2.11 Gas Leakages

In this paragraph some statistical data are given for the type “Gas Leakages” are given.



Picture 40 –Evolution of interventions for the “Gas leakages” type from 2008 to 2017.



Picture 41 –Percentage, year by year, of the type “Gas leakages”, vs. the total amount of interventions.

Followingly, the “Cause Detail” table is given for the “Gas Leakage” type. Only the causes with frequency greater than 0.1% are reported. In this case the adoption of this filter has reduced the number of causes from 82 to 35, making anyway possible the representation of 98.5% of the whole amount of this kind of interventions.

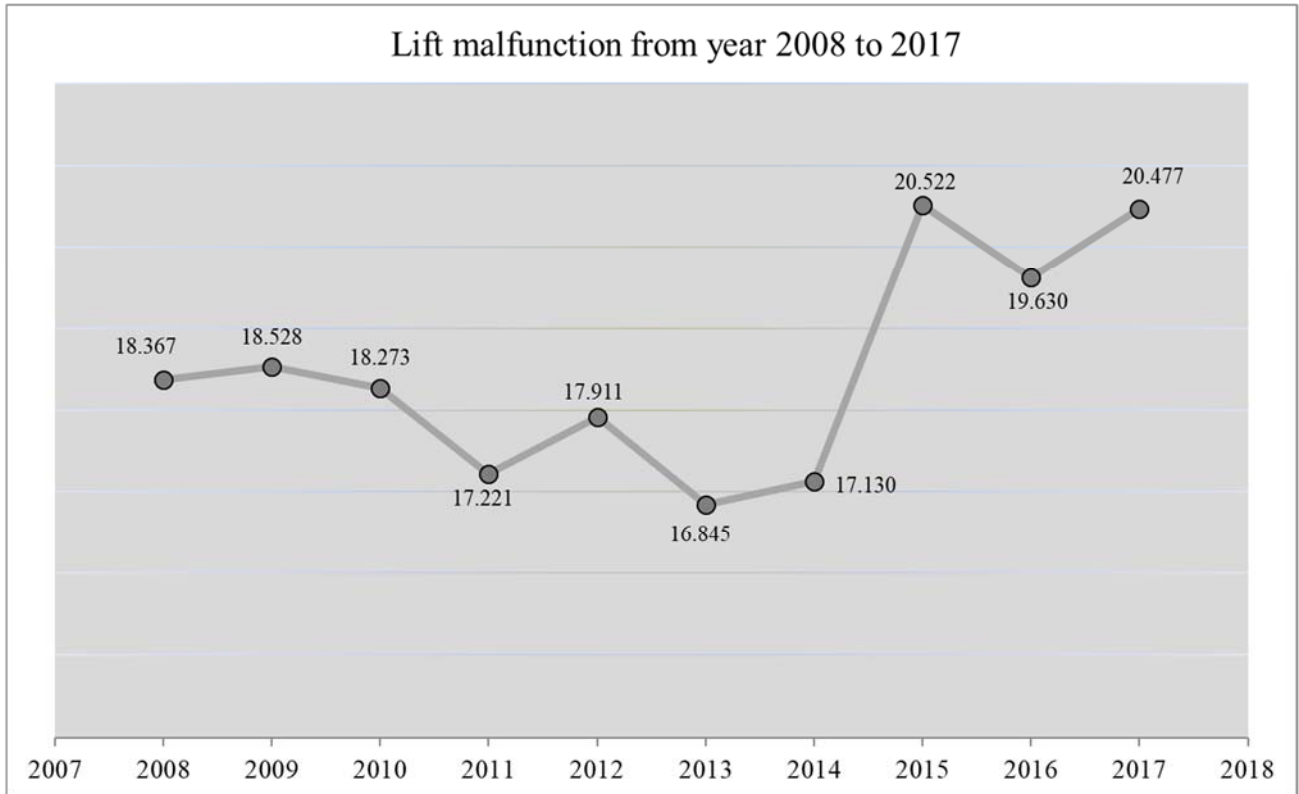
CAUSE	DETAIL OF THE CAUSE	Gas leak	
		No. Rescue events	%
Causes provoking Water Damages	Collapse of Pipes and Plants	689	2,6%
	Misfunctioning of Household Appliances	55	0,2%
	Others	41	0,2%
Causes provoking Statical Unsafe Conditions	Age	399	1,5%
	Demolitions and Excavation Works	156	0,6%
	Shocks	141	0,5%
	Other	87	0,3%
	Bad Execution	40	0,2%
	Ground Collapse and/or Unexpected Caves	31	0,1%
Causes provoking need of Rescue to Persons	Not Being Possible to Evaluate	177	0,7%
	Road Accident	133	0,5%
	Other	94	0,4%
Causes of Accident of Transportation Means and Vehicles	Lack of Attention	225	0,9%
	Crashes	146	0,6%
	Others	124	0,5%
Cause of Fire Ignition	Other	503	1,9%
	Fault on Heating Production Plants	142	0,5%
	Lack of Safety and Cautional Measures of Management	107	0,4%
	Chimney and/or Owen Ducts	35	0,1%
	Misuse of Portable Heating Devices	31	0,1%
Causes of Pollution and/or Losses	Collapse of Pipes	2.539	9,7%
	Others	1.351	5,2%
	Breaking of Safety Devised	166	0,6%
	Collapse or Damages to Tanks , Vessels and Similar	142	0,5%
	Losses and Spill (generic)	126	0,5%
	Founding of Containers	36	0,1%
	Probably Fault Originated Causes	101	0,4%
Causes of Other Types of Intervention	Others	3.812	14,5%
	Unforeseen Causes	1.936	7,4%
	Bad Working of Plants and or Machinery	1.752	6,7%
	General Lack of Attention	1.182	4,5%
	Lack of Adoption of Cautionary, Safety and Management Action/Measures	255	1,0%
	Collaboration with Security and Police Forces	28	0,1%
	Not Being Possible to Evaluate	7.667	29,2%
*	*	1.370	5,2%
TOTAL:			98,5%

(*) Rescue event report still open, data partially inserted.

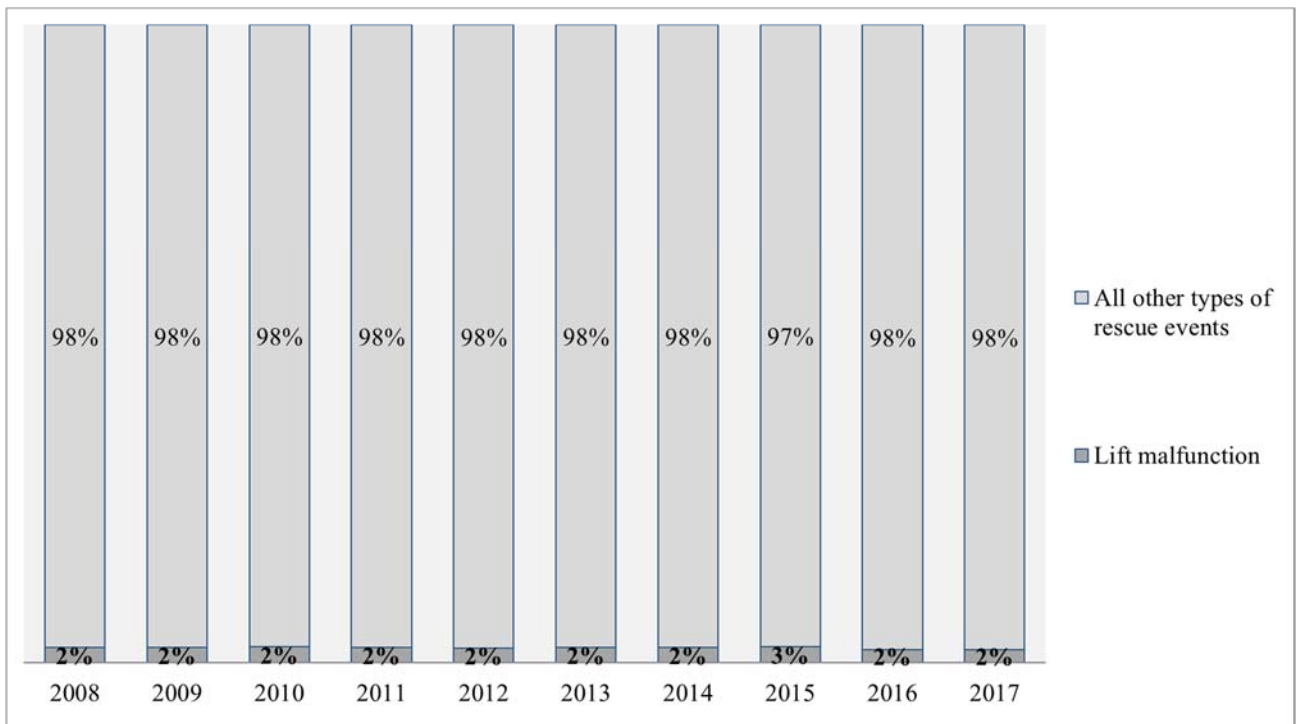
Table 14 – Causes with frequency higher than 0.1% of the whole amount of the “Gas Leakages” type.

4.2.12 Lift malfunction

In this paragraph some statistical report about interventions for the “Lift malfunction” are given.



Picture 42 –Evolution of interventions for the “Lift malfunction” type, from 2008 to 2017.



Picture 43 – Percentage, year by year, of the type “Lift malfunction”, vs. the total amount of interventions.

Followingly, the “Cause Detail” table is given for the “Lift malfunction” type. Only the causes with frequency greater than 0.1% are reported. In this case the adoption of this filter has reduced the number of causes from 46 to 15, making anyway possible the representation of 99.4% for the whole amount of this kind of interventions. The Percentage values have been calculated on the base of the whole amount of this kind of accidents (20.477 globally).

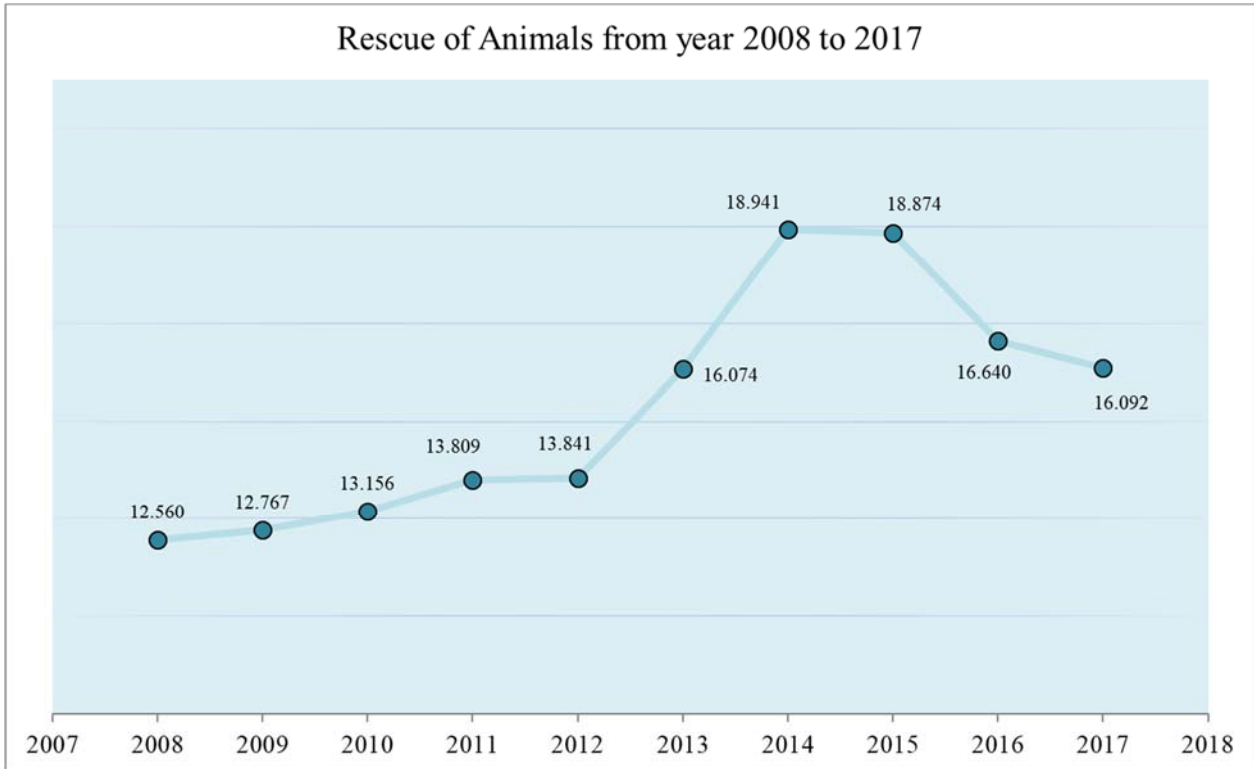
CAUSE	DETAIL OF THE CAUSE	Lift malfunction	
		N° rescue events	%
Causes provoking Statical Unsafe Conditions	Other	38	0,2%
	Overload	23	0,1%
Causes provoking need of Rescue to Persons	Arrest of Elevator	4.944	24,1%
	Not Being Possible to Evaluate	134	0,7%
	Other	124	0,6%
Cause of Fire Ignition	Electrical Causes	503	2,5%
	Other	56	0,3%
	Over Heating of Engines and Machines	23	0,1%
Not Being Possible to Evaluate	Not Being Possible to Evaluate	4.584	22,4%
Causes of Other Types of Intervention	Bad Working of Plants and or Machinery	6.562	32,0%
	Unforeseen Causes	1.431	7,0%
	Others	883	4,3%
	General Lack of Attention	47	0,2%
	Lack of Adoption of Cautionary, Safety and Management Action/Measures	21	0,1%
	*	*	986
TOTAL:			99,4%

(*) Rescue event report still open, data partially inserted.

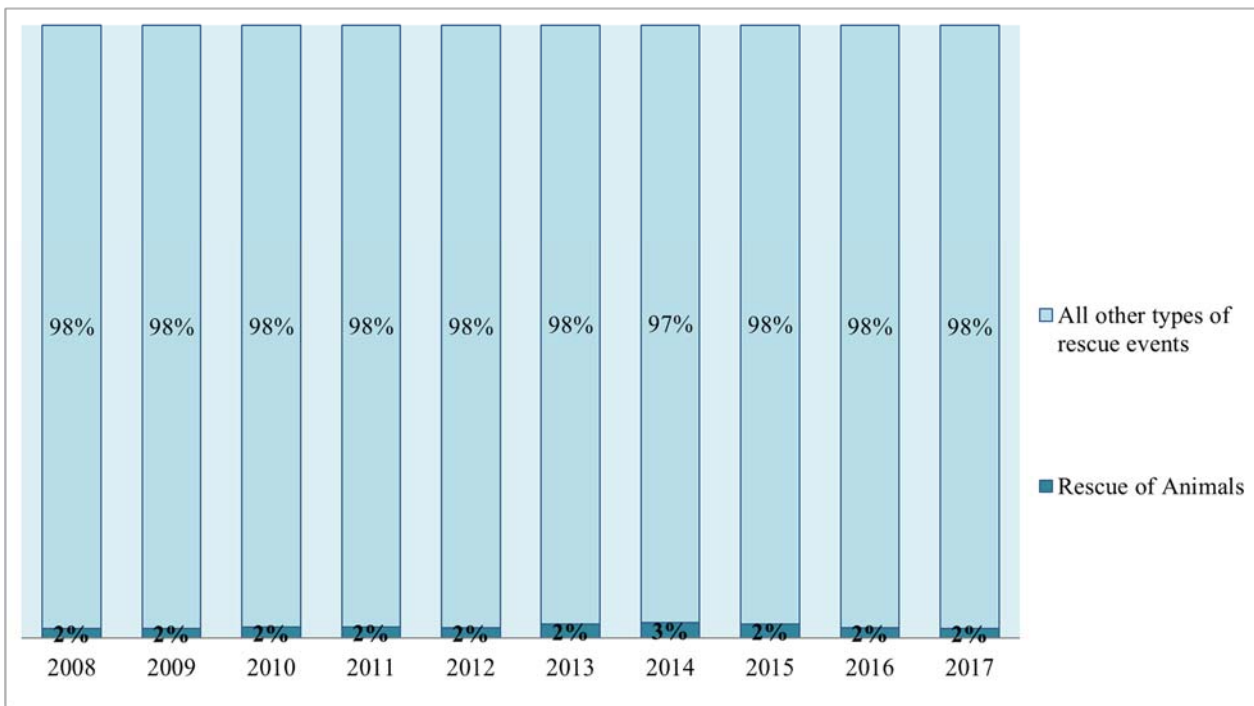
Table 15—Causes with frequency higher than 0.1%, for the “Lift malfunction”

4.2.13 Rescue of Animals

In this paragraph some statistical report about interventions on “Rescue of animals” are given being this activity an institutional commitment for the Fire Brigades.



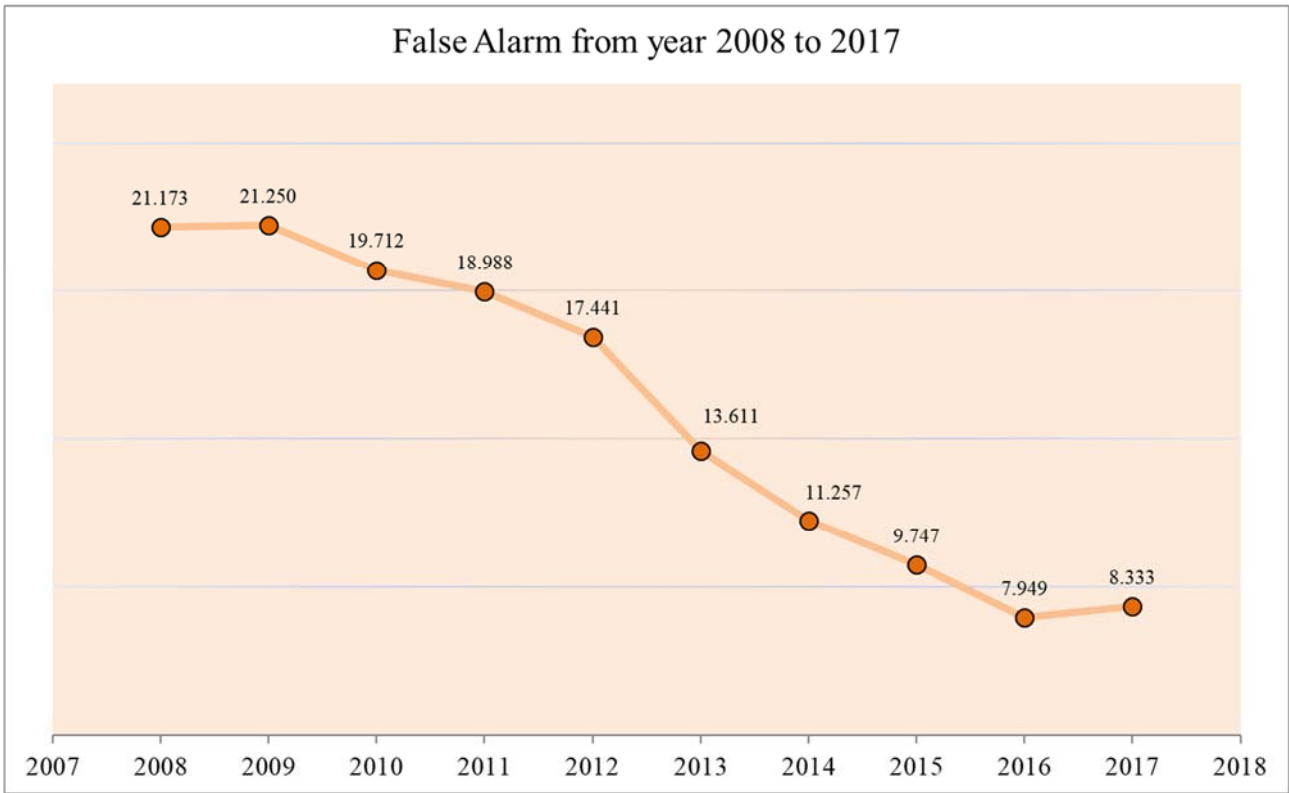
Picture 44 –Evolution of interventions for the “Rescue to animals” type from 2008 to 2017.



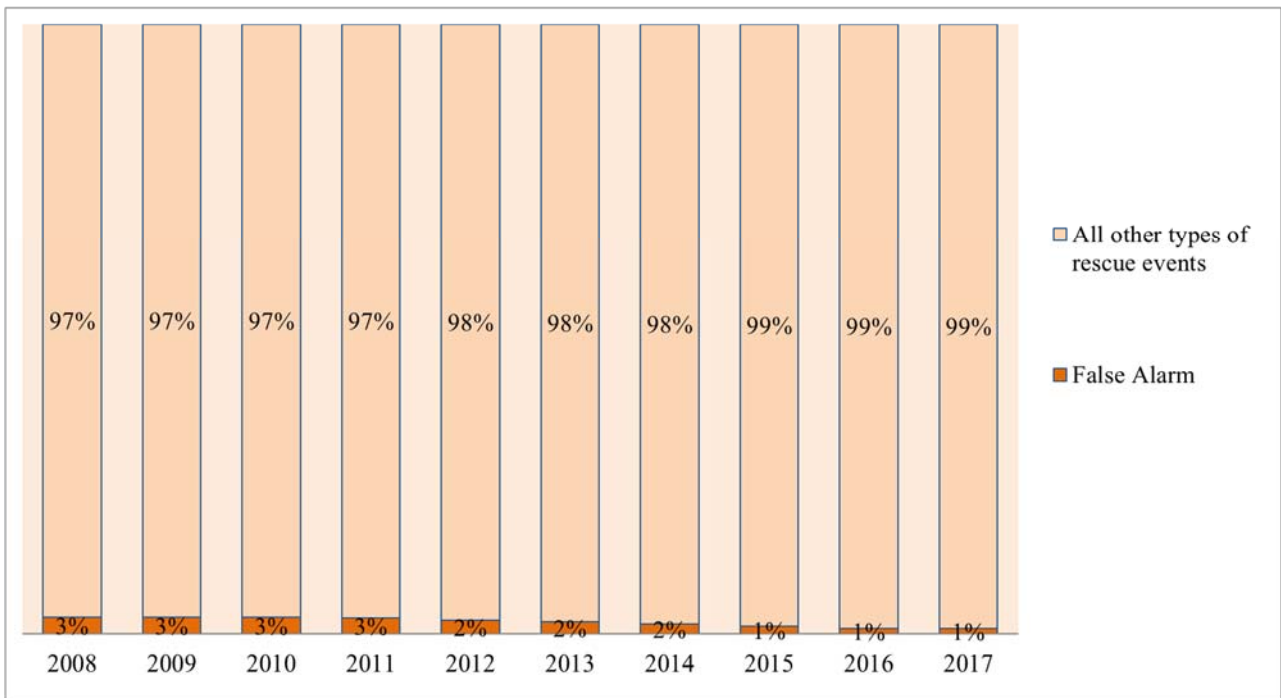
Picture 45 –Percentage, year by year, of the type “Rescue to animals”, vs. the total amount of interventions.

4.2.14 False Alarms

In this paragraph some statistical reports about interventions for the “False Alarms” type are given.



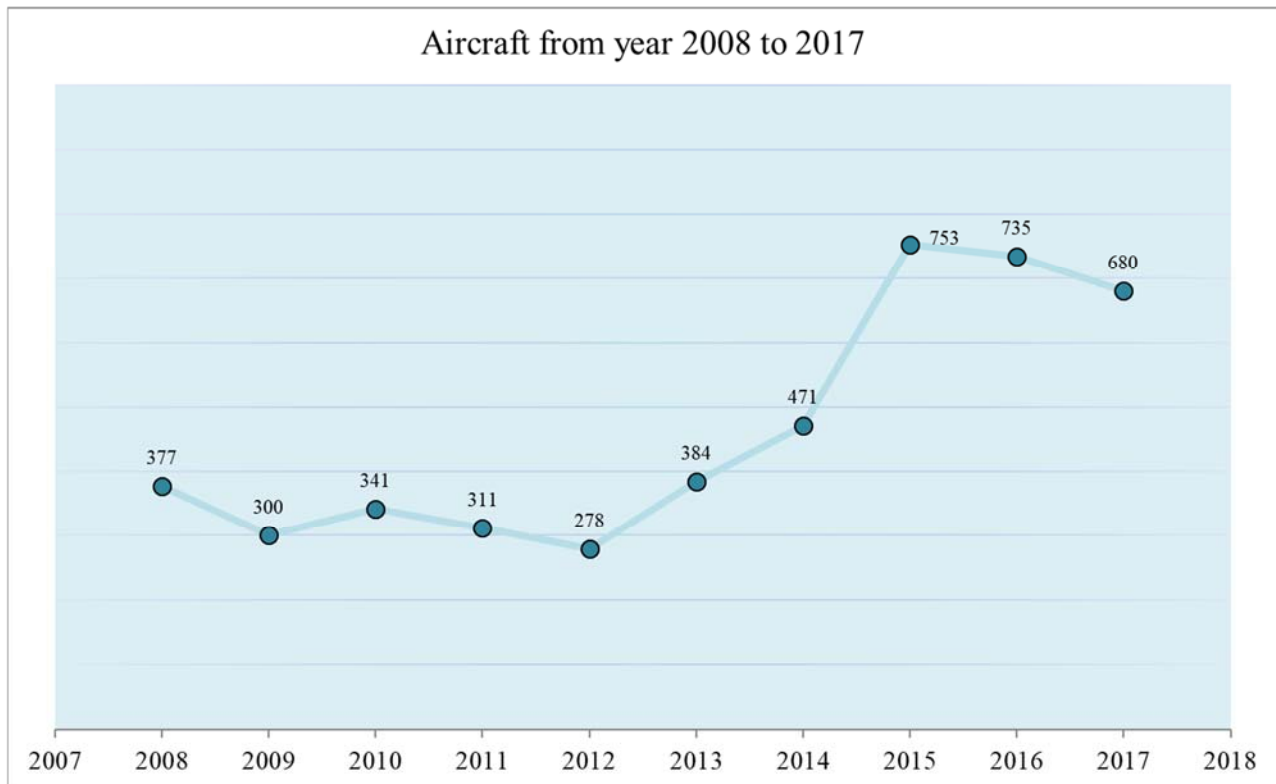
Picture 46 –Evolution of interventions for the “False alarms” from 2008 to 2017.



Picture 47 – Percentage, year by year, of the type “False alarms”, vs. the total amount of interventions.

4.2.15 Aircrafts

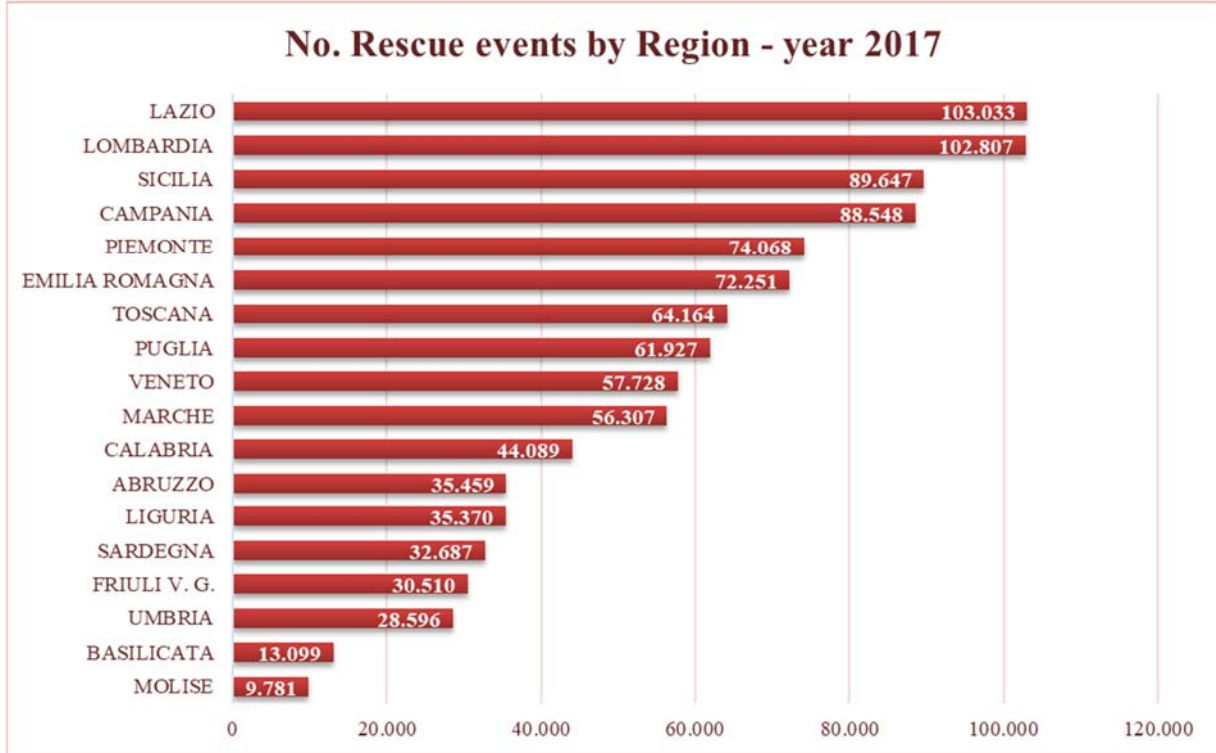
In this paragraph some statistical reports about interventions for the “Aircrafts” type are given.



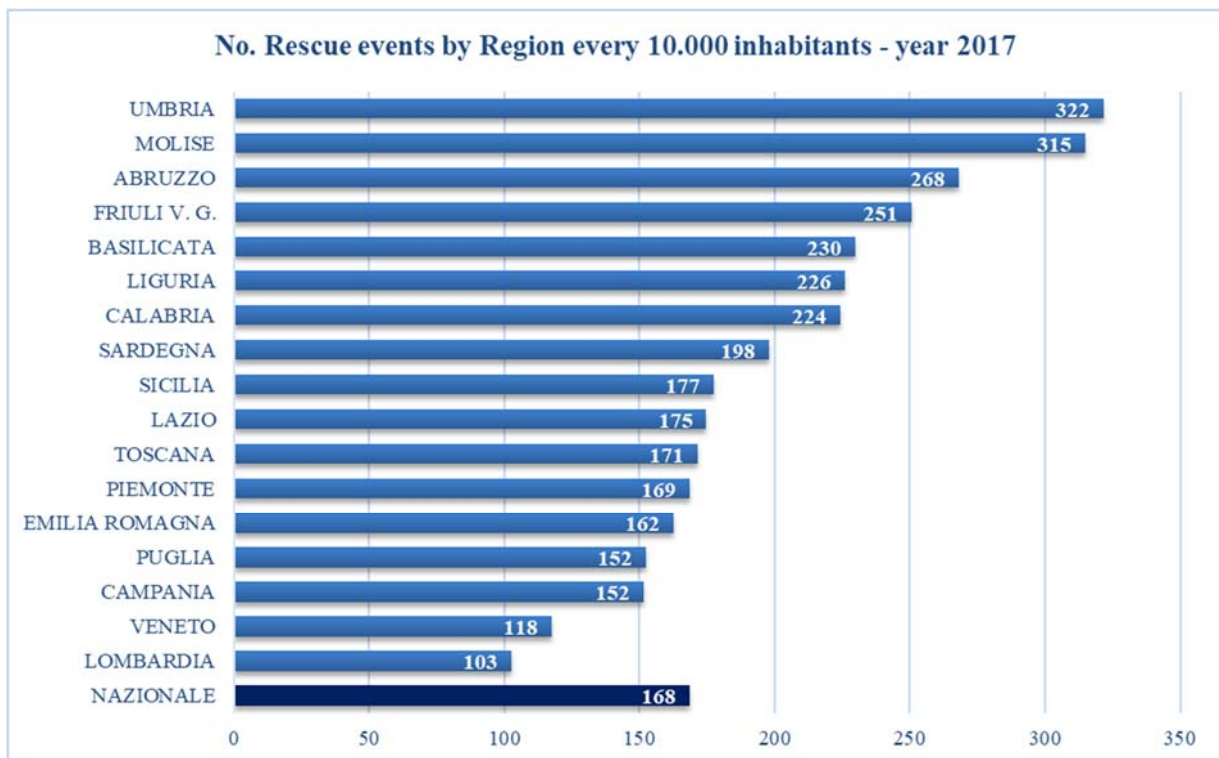
Picture 48 –Evolution of interventions for the “Aircrafts” type from 2008 to 2017.

4.3 Interventions of Urgent Technical Rescue held at Regional Level from 1st January 2017 to 31st December 2017.

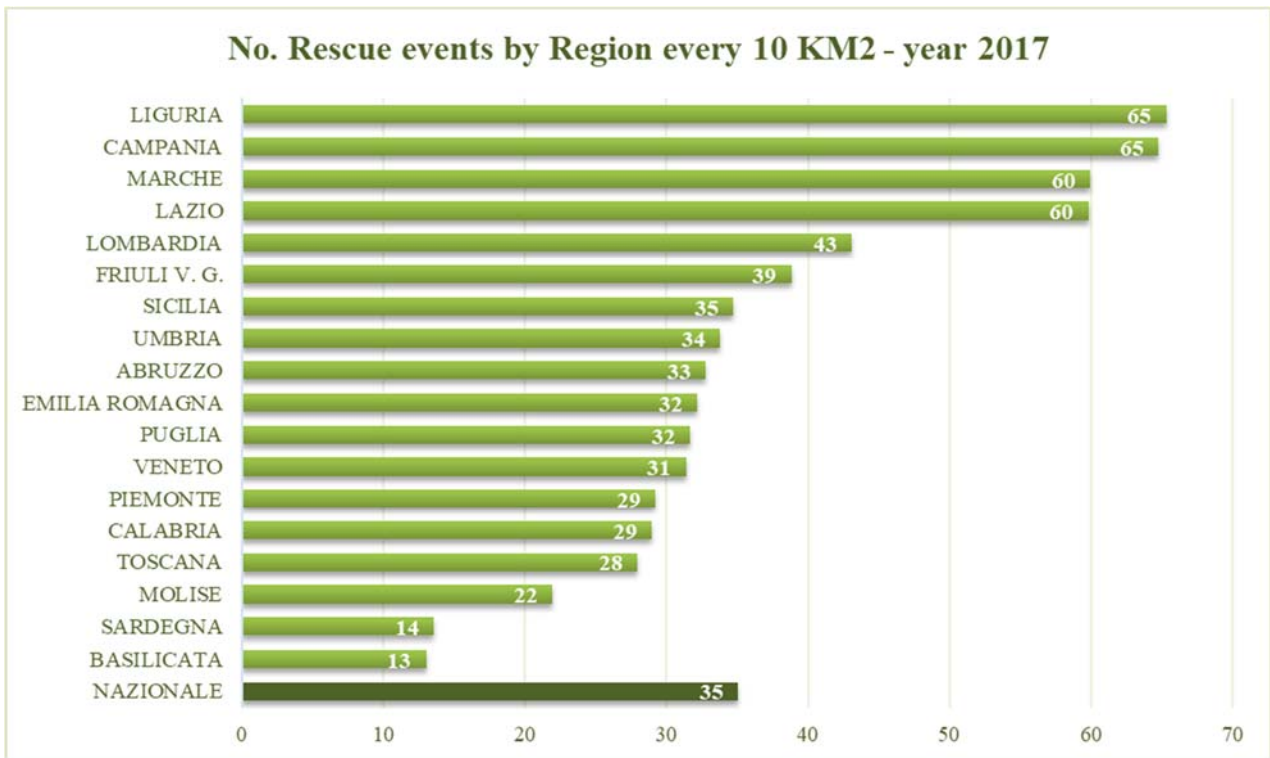
The three following graphics shows, respectively, -the number of interventions performed by each region, the same amount divided population, the same amount referred to the surface broadness of the Region.



Picture 49 –Intervention carried out in 2017 in each Region



Picture 50 –Interventions carried out in 2017, at Regional Level, by ten thousand inhabitants.



Picture 51 –Interventions carried out at Regional Level by 10 square km of land extension.

4.3.1 Interventions of Urgent Technical Rescue at regional level

In the following table the number of interventions performed in each Region split by type of accidents are reported. In order to better the perception of numerical amount of each region, a proportional histogram has been used inside the cells where data are reported.

RESCUE EVENTS	ABRUZZO	BASILICATA	CALABRIA	CAMPANIA	EMILIA ROMAGNA	FRIULI VENEZIA GIULIA	LAZIO	LIGURIA	LOMBARDIA	MARCHE	MOLISE	PIEMONTE	PUGLIA	SARDEGNA	SICILIA	TOSCANA	UMBRIA	VENETO	TOTAL RESCUE EVENTS BY TYPE
Fires and Explosions	7.872	6.684	23.867	36.166	18.954	4.911	38.978	6.606	29.026	5.566	3.130	21.211	34.465	10.164	43.396	16.559	4.661	13.725	325.941
Doors and Windows Openings	4.835	1.027	5.593	12.476	16.628	4.739	10.448	8.189	8.828	5.910	1.041	14.545	5.739	5.224	10.583	14.784	5.087	9.714	145.390
Rescue of person	1.632	412	1.787	2.855	5.081	2.762	8.732	5.348	17.474	1.833	788	8.973	2.952	1.837	5.209	5.329	887	5.478	79.369
Safety of buildings and Structures	6.773	580	2.223	7.810	1.716	2.441	8.702	1.406	3.715	11.305	793	2.196	3.155	2.258	5.879	4.677	2.736	1.805	70.170
Recoveries	3.213	367	887	5.101	936	455	1.597	361	2.001	16.059	638	895	660	740	1.532	1.522	5.291	1.501	43.756
Road accidents	998	312	1.044	1.059	4.269	2.684	2.817	1.268	7.791	2.054	341	3.845	1.706	2.027	1.381	2.563	1.106	4.979	42.244
Unstable Trees	1.924	753	1.176	2.023	4.646	2.038	4.422	956	3.184	1.797	592	1.469	1.265	1.347	1.675	3.151	1.320	3.600	37.338
Accidents solved by others/No more nec.	1.027	452	1.100	3.700	2.475	940	4.991	1.205	3.550	995	177	2.271	3.161	750	3.711	2.213	955	2.180	35.853
Water	1.521	455	1.243	3.711	1.929	1.922	3.730	1.310	6.711	735	382	2.482	1.331	1.273	2.065	1.899	587	1.874	35.160
Reclamation from Insects	1.014	663	759	2.001	3.873	797	1.141	726	2.520	1.689	733	3.870	294	733	1.322	1.832	1.829	831	26.627
Gas leak	798	165	618	2.254	1.889	687	3.752	1.299	3.558	672	144	2.337	1.291	651	2.169	2.040	426	1.473	26.223
Lift malfunction	628	111	686	1.267	1.239	449	3.702	1.016	2.918	422	157	1.688	1.122	716	1.989	1.324	291	752	20.477
Rescue of Animals	380	189	399	1.365	1.076	569	950	756	2.138	450	113	1.566	1.431	495	1.383	1.152	360	1.320	16.092
False Alarm	190	55	171	433	880	334	769	679	941	175	34	1.014	487	221	474	792	281	403	8.333
Harbours	148	6	58	49	109	164	122	138	293	55	13	29	123	157	148	106	3	986	2.707
Aircraft	19	0	22	11	21	46	64	49	53	6	0	55	16	166	53	20	1	78	680
Others	2.487	867	2.455	6.265	6.530	4.571	8.106	4.058	8.102	6.583	705	5.622	2.729	3.927	6.673	4.200	2.775	7.023	83.678
*	0	1	1	2	0	1	10	0	4	1	0	0	0	1	5	1	0	6	33
TOTAL RESCUE EVENTS BY REGION:	35.459	13.099	44.089	88.548	72.251	30.510	103.033	35.370	102.807	56.307	9.781	74.068	61.927	32.687	89.647	64.164	28.596	57.728	1.000.071

(*) Rescue event report still open, data partially inserted.

Table 16 – Number of interventions by Region and type carried out in 2017

4.3.2 Interventions of Urgent Technical Rescue by Region each ten thousand inhabitants

In the following table the number of interventions performed in each Region divided 10.000 inhabitants, split by type of accidents are reported. In order to improve the perception of numerical amount of each region, a proportional histogram has been used inside the cells where data are reported. the data concerning the population were extracted from the ISTAT website and updated as of December 31st 2016.

RESCUE EVENTS	ABRUZZO	BASILICATA	CALABRIA	CAMPANIA	EMILIA-ROMAGNA	FRUII VENEZIA GIULIA	LAZIO	LIGURIA	LOMBARDIA	MARCHE	MOLISE	PIEMONTE	PUGLIA	SARDEGNA	SICILIA	TOSCANA	UMBRIA	VENETO	TOTAL RESCUE EVENTS BY TYPE
Fires and Explosions	59,5	117,2	121,5	61,9	42,6	40,3	66,1	42,2	29,0	36,2	100,8	48,3	84,8	61,5	85,8	44,2	52,4	28,0	54,9
Doors and Windows Openings	36,6	18,0	28,5	21,4	37,4	38,9	17,7	52,3	8,8	38,4	33,5	33,1	14,1	31,6	20,9	39,5	57,2	19,8	24,5
Rescue of person	12,3	7,2	9,1	4,9	11,4	22,7	14,8	34,2	17,4	11,9	25,4	20,4	7,3	11,1	10,3	14,2	10,0	11,2	13,4
Safety of buildings and Structures	51,2	10,2	11,3	13,4	3,9	20,0	14,8	9,0	3,7	73,5	25,5	5,0	7,8	13,7	11,6	12,5	30,8	3,7	11,8
Recoveries	24,3	6,4	4,5	8,7	2,1	3,7	2,7	2,3	2,0	104,4	20,6	2,0	1,6	4,5	3,0	4,1	59,5	3,1	7,4
Road accidents	7,5	5,5	5,3	1,8	9,6	22,0	4,8	8,1	7,8	13,4	11,0	8,8	4,2	12,3	2,7	6,8	12,4	10,1	7,1
Unstable Trees	14,6	13,2	6,0	3,5	10,4	16,7	7,5	6,1	3,2	11,7	19,1	3,3	3,1	8,1	3,3	8,4	14,8	7,3	6,3
Accidents solved by others/No more nec.	7,8	7,9	5,6	6,3	5,6	7,7	8,5	7,7	3,5	6,5	5,7	5,2	7,8	4,5	7,3	5,9	10,7	4,4	6,0
Water	11,5	8,0	6,3	6,4	4,3	15,8	6,3	8,4	6,7	4,8	12,3	5,7	3,3	7,7	4,1	5,1	6,6	3,8	5,9
Reclamation from Insects	7,7	11,6	3,9	3,4	8,7	6,5	1,9	4,6	2,5	11,0	23,6	8,8	0,7	4,4	2,6	4,9	20,6	1,7	4,5
Gas leak	6,0	2,9	3,1	3,9	4,2	5,6	6,4	8,3	3,6	4,4	4,6	5,3	3,2	3,9	4,3	5,5	4,8	3,0	4,4
Lift malfunction	4,7	1,9	3,5	2,2	2,8	3,7	6,3	6,5	2,9	2,7	5,1	3,8	2,8	4,3	3,9	3,5	3,3	1,5	3,4
Rescue of Animals	2,9	3,3	2,0	2,3	2,4	4,7	1,6	4,8	2,1	2,9	3,6	3,6	3,5	3,0	2,7	3,1	4,0	2,7	2,7
False Alarm	1,4	1,0	0,9	0,7	2,0	2,7	1,3	4,3	0,9	1,1	1,1	2,3	1,2	1,3	0,9	2,1	3,2	0,8	1,4
Harbours	1,1	0,1	0,3	0,1	0,2	1,3	0,2	0,9	0,3	0,4	0,4	0,1	0,3	0,9	0,3	0,3	0,0	2,0	0,5
Aircraft	0,1	0,0	0,1	0,0	0,0	0,4	0,1	0,3	0,1	0,0	0,0	0,1	0,0	1,0	0,1	0,1	0,0	0,2	0,1
Others	18,8	15,2	12,5	10,7	14,7	37,5	13,7	25,9	8,1	42,8	22,7	12,8	6,7	23,8	13,2	11,2	31,2	14,3	14,1
No. Rescue events by Region every 10.000 inhabitants	268,2	229,7	224,4	151,6	162,4	250,5	174,7	226,0	102,6	366,1	315,1	168,6	152,4	197,7	177,3	171,4	321,7	117,6	168,4

Table 17 – Number of interventions, divided ten thousand inhabitants, performed by Region in the year 2017, in each Region.

4.3.3 Intervention of Urgent Technical Rescue by unit of territory extension.

In the following table the number of interventions performed in each Region, divided a unit of 10 square km of territory extension, split by type of accidents are reported. In order to improve the perception of numerical amount of each region, a histogram has been used inside the cells where data are reported.

RESCUE EVENTS	ABRUZZO	BASILICATA	CALABRIA	CAMPANIA	EMILIA ROMAGNA	FRILUNI VENETIA GIULIA	LAZIO	LIGURIA	LOMBARDIA	MARCHE	MOLISE	PIEMONTE	PUGLIA	SARDEGNA	SICILIA	TOSCANA	UMBRIA	VENETO	TOTAL RESCUE EVENTS BY TYPE
Fires and Explosions	7,3	6,6	15,7	26,5	8,4	6,2	22,6	12,2	12,2	5,9	7,0	8,4	17,6	4,2	16,8	7,2	5,5	7,5	11,4
Doors and Windows Openings	4,5	1,0	3,7	9,1	7,4	6,0	6,1	15,1	3,7	6,3	2,3	5,7	2,9	2,2	4,1	6,4	6,0	5,3	5,1
Rescue of person	1,5	0,4	1,2	2,1	2,3	3,5	5,1	9,9	7,3	1,9	1,8	3,5	1,5	0,8	2,0	2,3	1,0	3,0	2,8
Safety of buildings and Structures	6,3	0,6	1,5	5,7	0,8	3,1	5,0	2,6	1,6	12,0	1,8	0,9	1,6	0,9	2,3	2,0	3,2	1,0	2,5
Recoveries	3,0	0,4	0,6	3,7	0,4	0,6	0,9	0,7	0,8	17,1	1,4	0,4	0,3	0,3	0,6	0,7	6,3	0,8	1,5
Road accidents	0,9	0,3	0,7	0,8	1,9	3,4	1,6	2,3	3,3	2,2	0,8	1,5	0,9	0,8	0,5	1,1	1,3	2,7	1,5
Unstable Trees	1,8	0,7	0,8	1,5	2,1	2,6	2,6	1,8	1,3	1,9	1,3	0,6	0,6	0,6	0,6	0,6	1,4	1,6	2,0
Accidents solved by others/No Water	0,9	0,4	0,7	2,7	1,1	1,2	2,9	2,2	1,5	1,1	0,4	0,9	1,6	0,3	1,4	1,0	1,1	1,2	1,3
Reclamation from Insects	1,4	0,5	0,8	2,7	0,9	2,4	2,2	2,4	2,8	0,8	0,9	1,0	0,7	0,5	0,8	0,8	0,7	1,0	1,2
Gas leak	0,9	0,7	0,5	1,5	1,7	1,0	0,7	1,3	1,1	1,8	1,6	1,5	0,2	0,3	0,5	0,8	0,8	2,2	0,5
Lift malfunction	0,7	0,2	0,4	1,6	0,8	0,9	2,2	2,4	1,5	0,7	0,3	0,9	0,7	0,3	0,8	0,9	0,5	0,8	0,9
Rescue of Animals	0,6	0,1	0,5	0,9	0,6	0,6	2,1	1,9	1,2	0,4	0,4	0,7	0,6	0,3	0,8	0,6	0,3	0,4	0,7
False Alarm	0,4	0,2	0,3	1,0	0,5	0,7	0,6	1,4	0,9	0,5	0,3	0,6	0,7	0,2	0,5	0,5	0,4	0,7	0,6
Harbours	0,2	0,1	0,1	0,3	0,4	0,4	0,4	1,3	0,4	0,2	0,1	0,4	0,2	0,1	0,2	0,3	0,3	0,2	0,3
Aircraft	0,1	0,0	0,0	0,0	0,0	0,2	0,1	0,3	0,1	0,1	0,0	0,0	0,1	0,1	0,1	0,0	0,0	0,5	0,1
Others	0,0	0,0	0,0	0,0	0,0	0,1	0,0	0,1	0,0	0,0	0,0	0,0	0,0	0,1	0,0	0,0	0,0	0,0	0,0
No. Rescue events by Region every 10 KM2	2,3	0,9	1,6	4,6	2,9	5,8	4,7	7,5	3,4	7,0	1,6	2,2	1,4	1,6	2,6	1,8	3,3	3,8	2,9
	32,7	13,0	29,0	64,8	32,2	38,8	59,8	65,3	43,1	59,9	21,9	29,2	31,7	13,6	34,7	27,9	33,8	31,4	35,1

Table 18 – Number of intervention by Region and type, performed in 2017, for the assumed unit of surface of 10 sq. Km.

4.3.4 Percentage variation of intervention for Urgent Technical Rescue carried out at regional level from 2016 to 2017

The variations of the most significant kind of accident occurred from 2016 to 2017 are reported in the following table. In this picture the red color is used for increasing values, green for decreasing ones. Data are split by kind of accident at regional level.

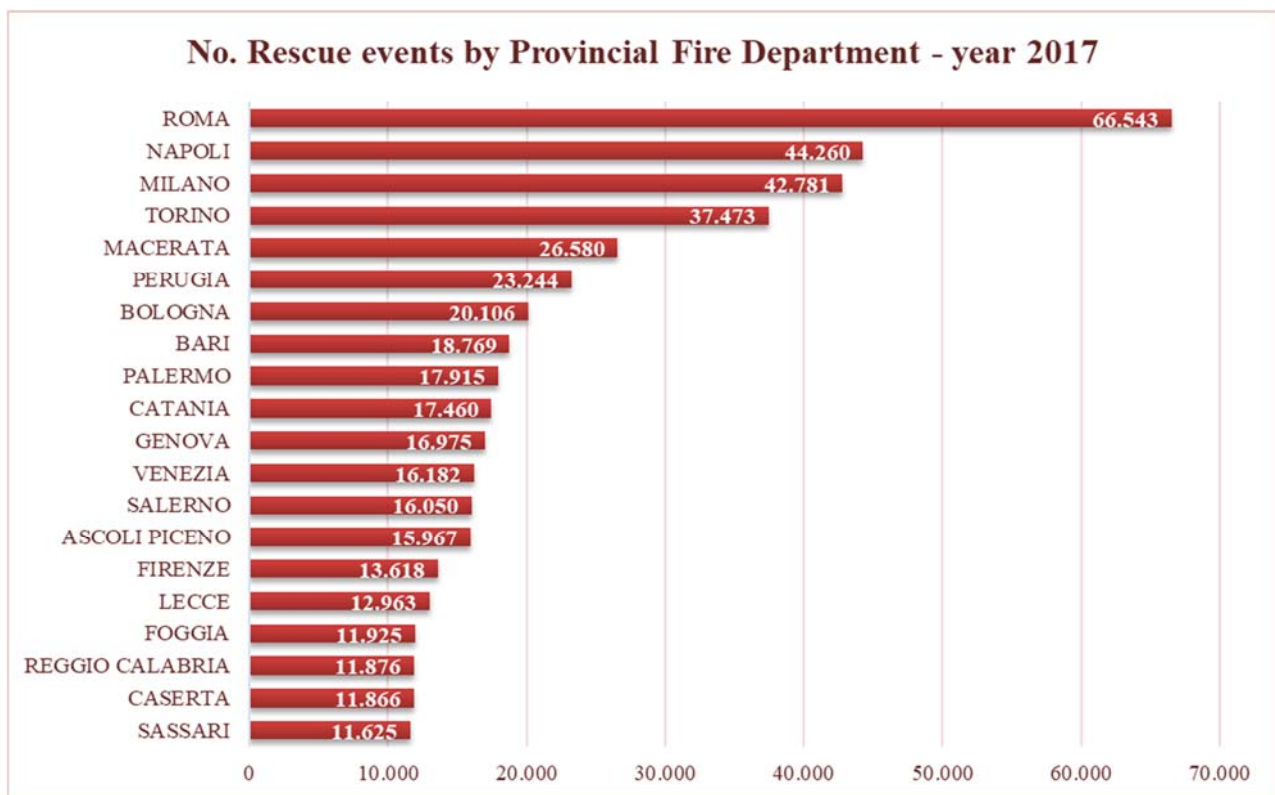
	Water	Unstable Trees	Doors and Windows Openings	Lift malfunction	Reclamation from Insects	False Alarm	Gas leak	Fires and Explosions	Road accidents	Accidents solved by others/No more necessary	Recoveries	Rescue of Animals	Rescue of person	Safety of buildings and Structures	TOTAL RESCUE EVENTS BY REGION:
ABRUZZO	102,3%	71,0%	-2,7%	6,6%	-11,9%	13,8%	19,3%	81,0%	-6,3%	14,0%	226,2%	-4,3%	60,8%	-34,2%	15,4%
BASILICATA	33,4%	32,6%	4,7%	18,1%	-7,5%	-32,9%	7,1%	116,8%	-22,6%	71,9%	12,6%	5,0%	48,2%	59,3%	56,1%
CALABRIA	-21,4%	-3,7%	1,7%	-3,1%	-21,7%	-7,6%	-0,6%	42,7%	-7,2%	-1,4%	32,4%	-20,7%	18,3%	-25,6%	17,3%
CAMPANIA	-4,5%	6,0%	-0,2%	0,2%	-40,7%	-11,1%	1,7%	50,1%	-17,4%	-1,0%	493,8%	5,3%	-4,3%	8,8%	22,6%
EMILIA ROMAGNA	-2,3%	130,8%	4,3%	12,0%	12,7%	15,5%	-2,9%	32,3%	-0,6%	7,2%	3,8%	13,6%	4,6%	16,1%	16,5%
FRIULI VENEZIA GIULIA	48,0%	95,8%	6,5%	4,2%	-9,8%	27,5%	1,0%	11,0%	14,7%	31,8%	5,6%	-5,8%	5,4%	111,3%	20,6%
LAZIO	-4,5%	-7,0%	-3,2%	2,3%	-44,4%	-10,8%	-0,4%	42,1%	-6,9%	4,1%	-79,8%	-14,5%	4,8%	-53,1%	-6,1%
LIGURIA	3,2%	22,4%	8,3%	19,0%	-6,7%	5,3%	5,0%	59,3%	15,3%	-14,1%	1,7%	12,8%	27,7%	-8,4%	17,3%
LOMBARDIA	-8,0%	3,0%	1,2%	-0,7%	-20,4%	-6,1%	-10,3%	19,2%	-1,1%	-8,7%	18,8%	-8,4%	2,9%	4,4%	3,9%
MARCHE	-8,8%	72,3%	5,0%	2,4%	-8,5%	-12,5%	-13,3%	38,2%	-2,3%	-3,8%	-38,5%	-30,1%	-3,8%	-64,2%	-36,4%
MOLISE	42,0%	63,1%	12,4%	11,3%	18,2%	88,9%	-0,7%	120,7%	-27,0%	22,9%	194,0%	-4,2%	21,4%	155,0%	56,1%
PIEMONTE	-23,5%	-4,3%	4,1%	2,4%	-4,7%	21,6%	-1,5%	35,0%	-0,6%	18,3%	10,9%	10,8%	7,9%	24,5%	11,2%
PUGLIA	-17,3%	16,9%	8,9%	16,1%	-22,8%	0,6%	0,2%	32,4%	-4,0%	20,7%	22,0%	5,3%	7,7%	6,3%	20,2%
SARDEGNA	-19,5%	47,2%	1,6%	-4,9%	-12,0%	-5,6%	0,9%	11,7%	7,8%	13,3%	132,7%	-14,5%	15,5%	16,5%	8,7%
SICILIA	4,5%	11,5%	3,3%	9,5%	9,2%	-8,1%	16,5%	12,3%	-5,9%	2,1%	47,2%	-19,9%	16,9%	3,5%	9,2%
TOSCANA	-14,7%	31,9%	1,4%	0,9%	-15,2%	23,0%	-4,1%	30,4%	-1,4%	5,7%	28,7%	-3,5%	7,3%	-3,3%	8,8%
UMBRIA	6,5%	34,7%	13,2%	19,8%	-4,6%	30,1%	-2,7%	71,7%	38,1%	-7,4%	-36,0%	9,8%	-6,3%	-60,1%	-13,3%
VENETO	-6,5%	124,0%	-3,2%	2,6%	-5,7%	15,5%	-4,5%	11,2%	0,5%	14,5%	17,5%	6,9%	-5,4%	27,9%	7,8%
TOTAL RESCUE EVENTS BY TYPE	-3,9%	33,7%	2,6%	4,3%	-12,5%	4,8%	-0,9%	32,7%	-0,4%	4,9%	-18,8%	-3,3%	7,1%	-32,8%	5,9%

Table 19 –Percentage variations of interventions from 2016 to 2017 carried out at Regional Level

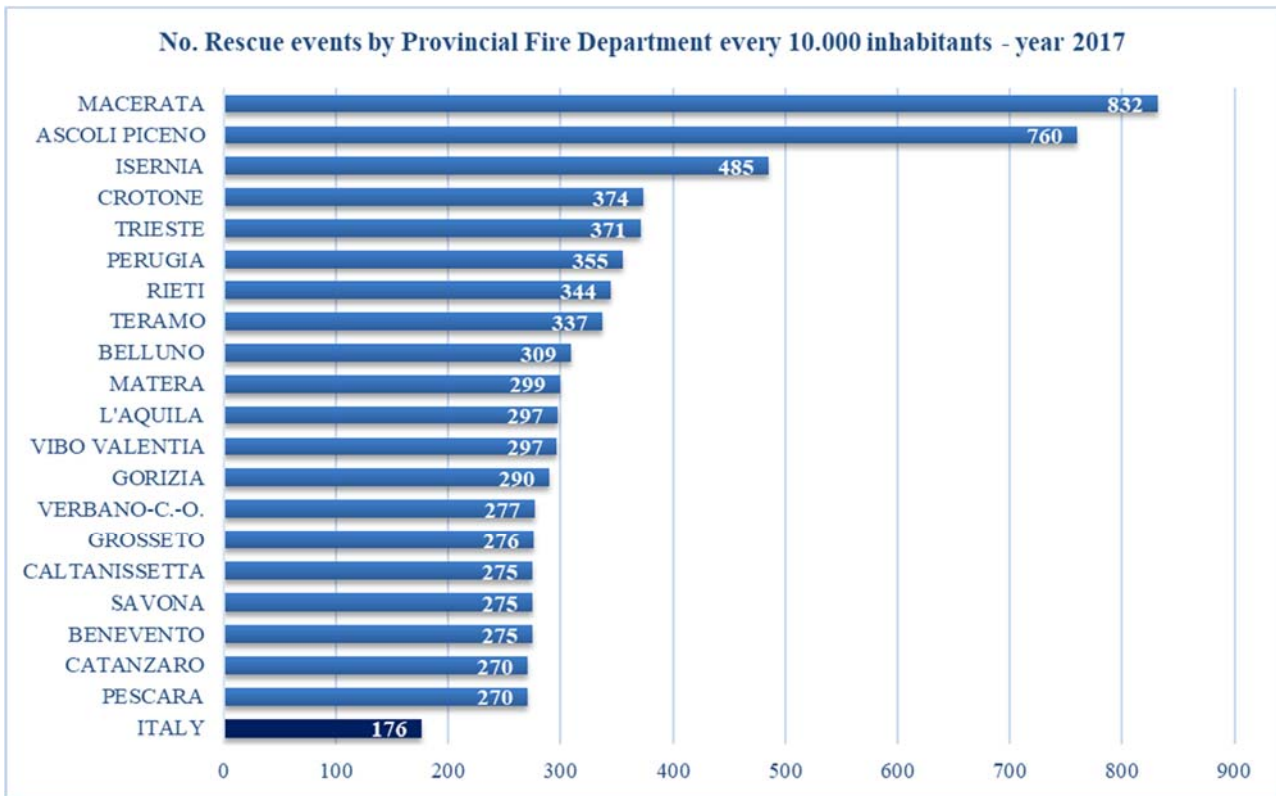
4.4 Interventions of Urgent Technical Rescue carried out at Provincial Level from 1st January 2017 to 31st December 2017.

The three following graphics shows up the first 20 Provincial Fire Departments that have conducted, respectively:

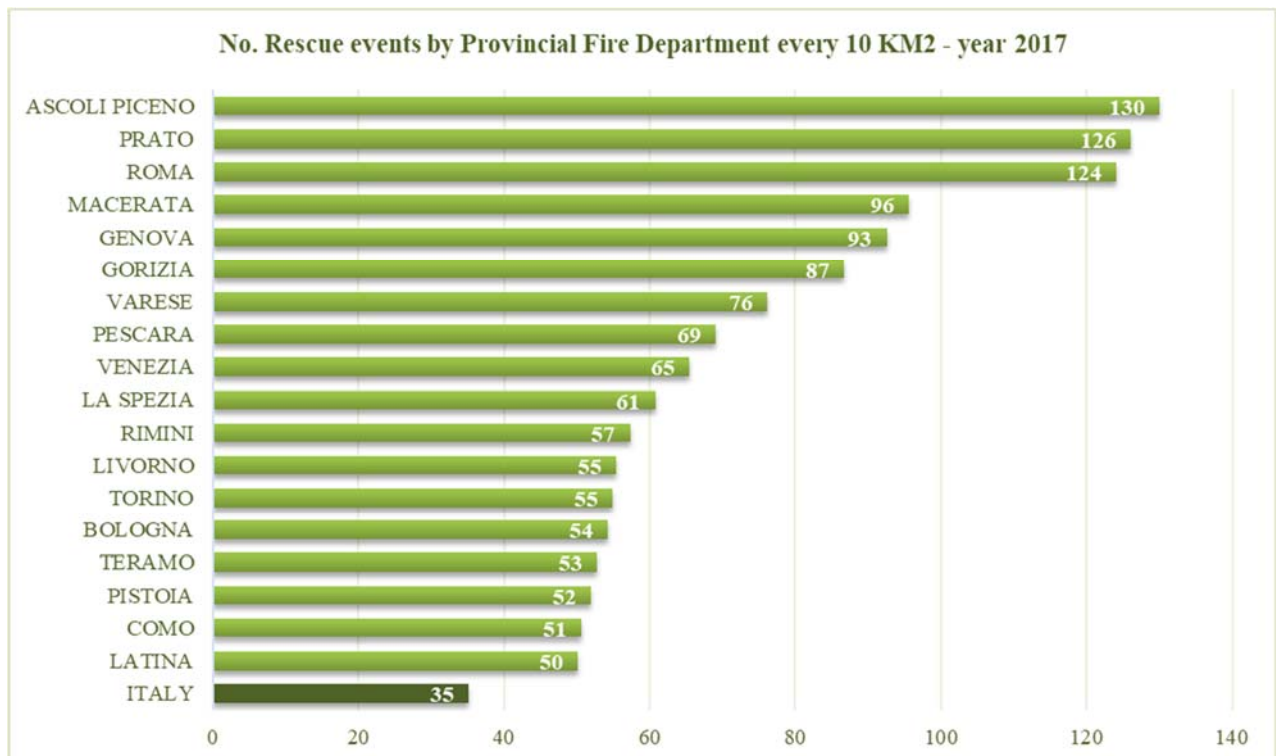
- ✓ the largest number of Urgent Technical Rescue on national scale;
- ✓ the highest number of interventions compared to population;
- ✓ the highest number of interventions for unit of territory extension.



Picture 52 – Top 20 Provincial Fire Department on the base of number of interventions carried out



Picture 53 – Top 20 Provincial Fire Departments by number of interventions carried out in 2017 in comparison of the population of the province.



Picture 54 – Top 20 Provincial Fire Departments by number of interventions carried out in 2017, for each 10 square Km of the province territory extension

4.4.1 Urgent Technical Rescue interventions carried out by province.

The following table shows the number of interventions carried out in 2017, split by type, at provincial level. Histograms have been reported in each cell, proportional to the value therein reported.

REGION	Provincial Fire Department	Fires and Explosions	Doors and Windows Openings	Rescue of person	Safety of buildings and Structures	Recoveries	Road accidents	Unstable Trees	Accidents solved by others/No more necessary	Water	Reclamation from Insects	Gas leak	Lift malfunction	Rescue of Animals	False Alarm	Harbours	Aircraft	Others *	Total by Provincial Fire Department	
ABRUZZO	CHIETI	2.034	1.316	416	636	325	283	653	301	400	332	201	152	62	37	3	1	642	0	7.794
	L'AQUILA	2.430	1.230	382	1.572	966	306	259	150	284	231	166	132	87	69	0	9	584	0	8.857
	PESCARA	2.039	1.329	447	1.052	269	205	619	284	520	333	247	250	93	56	128	9	618	0	8.498
	TERAMO	1.369	960	387	3.513	1.653	204	393	292	317	118	184	94	138	28	17	0	643	0	10.310
BASILICATA	MATERA	3.192	556	202	239	192	135	296	202	221	113	79	65	86	45	0	0	367	0	5.990
	POTENZA	3.492	471	210	341	175	177	457	250	234	550	86	46	103	10	6	0	500	1	7.109
CALABRIA	CATANZARO	4.836	1.225	347	502	224	341	265	275	363	303	165	156	110	28	3	14	571	0	9.728
	COSENZA	6.758	1.213	470	405	118	198	183	217	371	93	192	205	98	43	9	0	684	0	11.257
	CROTONE	3.209	1.144	157	343	112	88	172	231	166	107	87	117	64	16	3	4	363	0	6.383
	REGGIO CALABRIA	6.320	1.643	611	795	358	318	320	310	245	101	115	172	66	65	42	4	390	1	11.876
	VIBO VALENTIA	2.744	368	202	178	75	99	236	67	98	155	59	36	61	19	1	0	447	0	4.845
CAMPANIA	AVELLINO	3.578	1.073	252	382	276	140	366	376	405	583	180	127	138	31	1	0	650	0	8.558
	BENEVENTO	3.668	824	165	411	224	165	426	184	267	585	90	84	89	29	2	0	601	0	7.814
	CASERTA	6.769	1.296	366	670	123	221	290	541	325	146	270	166	123	74	2	4	480	0	11.866
	NAPOLI	14.549	6.940	1.578	5.192	4.194	267	384	2.118	2.155	221	1.307	568	815	217	24	6	3.723	2	44.260
	SALERNO	7.602	2.343	494	1.155	284	266	557	481	559	466	407	322	200	82	20	1	811	0	16.050
EMILIA ROMAGNA	BOLOGNA	5.055	5.081	1.145	597	325	983	1.030	704	740	1.516	559	390	312	268	17	9	1.375	0	20.106
	FERRARA	1.418	1.495	285	220	74	487	824	174	153	142	162	99	86	34	13	1	838	0	6.505
	FORLI'	1.727	1.860	397	159	84	277	665	112	117	564	133	115	85	20	7	0	904	0	7.226
	MODENA	3.116	2.669	631	189	113	554	447	360	280	897	261	146	117	211	5	2	745	0	10.743
	PARMA	1.696	701	469	197	88	495	219	262	144	100	155	103	133	98	7	3	442	0	5.312
	PIACENZA	1.280	287	585	38	17	562	214	100	198	7	132	113	69	35	0	0	302	0	3.939
	RAVENNA	1.419	2.077	459	129	72	394	572	224	135	146	237	115	93	54	22	0	977	0	7.125
	REGGIO EMILIA	1.998	1.416	706	56	81	323	241	295	102	257	153	108	90	107	1	0	406	0	6.340
RIMINI	1.245	1.042	404	131	82	194	434	244	60	244	97	50	91	53	37	6	541	0	4.955	

(*) Rescue event report still open, data partially inserted.

Table 20 (1/3) – Distribution of interventions by province in 2017.

REGION	Provincial Fire Department	Fires and Explosions	Doors and Windows Openings	Rescue of person	Safety of buildings and Structures	Recoveries	Road accidents	Unstable Trees	Accidents solved by others/No more necessary	Water	Reclamation from Insects	Gas leak	Lift malfunction	Rescue of Animals	False Alarm	Harbours	Aircraft	Others	*	Total by Provincial Fire Department
FRIULI V G	GORIZIA	521	616	365	142	73	279	342	75	168	268	85	72	79	81	15	36	835	0	4.052
	PORDENONE	1.108	1.692	482	270	138	629	461	148	254	138	125	126	84	35	3	3	822	0	6.518
	TRIESTE	901	818	864	1.377	146	367	638	433	884	278	233	170	167	170	135	3	1.036	1	8.621
	UDINE	2.381	1.613	1.051	652	98	1.409	597	284	616	113	244	81	239	48	11	4	1.878	0	11.319
LAZIO	FROSINONE	4.191	1.033	337	198	136	389	312	129	269	150	219	104	112	52	6	3	806	0	8.446
	LATINA	6.286	989	364	281	83	437	593	466	263	100	232	366	128	74	35	5	601	3	11.306
	RIETI	1.816	378	183	459	320	390	197	233	190	21	103	33	58	13	0	5	934	0	5.333
	COA Cittareale	2	2	30	2.707	681	61	22	34	7	0	2	0	10	1	1	0	1.654	0	5.214
	ROMA	24.596	6.866	7.522	4.634	207	1.347	3.002	3.805	2.838	542	3.017	3.056	591	576	47	51	3.839	7	66.543
VITERBO	2.087	1.180	296	423	170	193	296	324	163	328	179	143	51	53	33	0	272	0	6.191	
LIGURIA	GENOVA	2.799	4.595	3.134	846	104	384	349	531	726	28	699	628	298	224	52	45	1.533	0	16.975
	IMPERIA	1.123	1.230	663	126	59	168	90	117	141	121	210	114	103	110	11	0	945	0	5.331
	LA SPEZIA	1.308	1.111	593	128	124	247	219	281	200	36	152	87	100	115	48	0	607	0	5.356
	SAVONA	1.376	1.253	958	306	74	469	298	276	243	541	238	187	255	230	27	4	973	0	7.708
LOMBARDIA	BERGAMO	2.477	720	1.274	304	214	957	209	589	330	145	201	69	156	96	17	10	401	0	8.169
	BRESCIA	3.566	932	1.318	293	238	1.127	429	395	435	481	207	159	207	78	57	10	768	1	10.701
	COMO	1.968	346	948	188	155	688	238	324	368	61	151	91	205	88	38	1	619	0	6.477
	CREMONA	784	189	502	195	69	441	189	102	236	22	84	98	94	12	6	7	390	0	3.420
	LECCO	1.029	168	702	165	93	320	256	74	190	114	96	24	89	27	67	1	243	0	3.658
	LODI	906	181	436	88	60	475	111	48	185	1	94	83	64	23	4	2	244	0	3.005
	MANTOVA	1.323	1.270	375	76	66	528	137	242	85	169	116	106	62	24	1	5	370	0	4.955
	MILANO	11.220	4.071	9.113	1.899	620	1.643	800	920	3.830	1.229	2.174	1.959	893	299	40	10	2.060	1	42.781
	PAVIA	2.308	466	852	153	97	544	227	117	362	144	155	132	113	52	3	1	829	0	6.555
	SONDRIO	1.051	112	398	161	205	283	186	93	241	52	59	73	96	45	6	0	899	0	3.960
VARESE	2.394	373	1.556	193	184	785	402	646	449	102	221	124	159	197	54	6	1.279	2	9.126	
MARCHE	ANCONA	1.748	1.612	625	597	353	614	430	324	263	294	224	168	76	55	44	3	967	1	8.398
	ASCOLI PICENO	1.445	1.654	476	6.112	2.047	537	603	258	203	444	197	74	167	37	3	0	1.710	0	15.967
	MACERATA	1.085	1.665	344	4.437	13.505	534	429	190	163	596	127	87	118	36	5	1	3.258	0	26.580
	PESARO	1.288	979	388	159	154	369	335	223	106	355	124	93	89	47	3	2	648	0	5.362
MOLISE	CAMPOBASSO	1.902	705	247	472	265	118	223	144	219	447	102	121	60	22	13	0	503	0	5.563
	ISERNIA	1.228	336	541	321	373	223	369	33	163	286	42	36	53	12	0	0	202	0	4.218
PIEMONTE	ALESSANDRIA	2.153	2.463	621	249	95	397	221	102	191	76	188	316	183	144	0	4	601	0	8.004
	ASTI	1.125	1.140	357	42	52	233	89	67	66	72	90	98	96	33	1	0	315	0	3.876
	BIELLA	656	345	304	47	50	113	151	80	86	534	103	37	79	45	0	6	273	0	2.909
	CUNEO	2.854	2.225	677	84	114	929	127	169	240	864	231	98	228	75	0	0	838	0	9.753
	NOVARA	942	603	323	239	86	225	191	120	244	329	134	123	116	43	1	0	482	0	4.201
	TORINO	11.959	7.014	6.198	1.169	285	1.493	356	1.565	1.297	122	1.423	880	680	531	6	45	2.450	0	37.473
	VERBANO-CUSIO-OSSOLA	799	302	273	214	116	226	205	76	204	1.360	94	37	127	65	21	0	314	0	4.433
VERCELLI	723	453	220	152	97	229	129	92	154	513	74	99	57	78	0	0	349	0	3.419	

(*) Rescue event report still open, data partially inserted.

Table 20 (2/3) – Distribution of interventions by province in 2017.

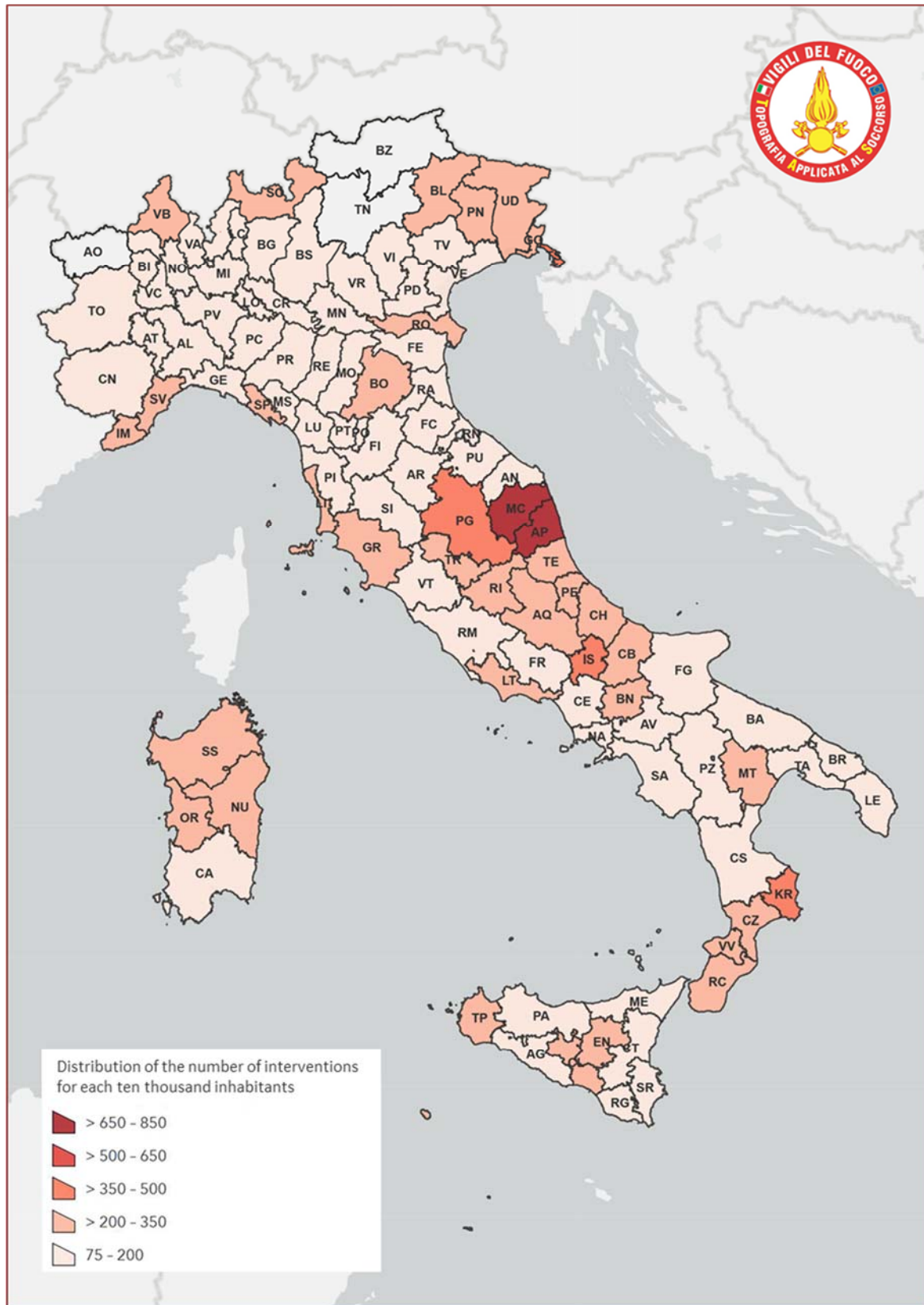
REGION	Provincial Fire Department	Fires and Explosions	Doors and Windows Openings	Rescue of person	Safety of buildings and Structures	Recoveries	Road accidents	Unstable Trees	Accidents solved by others/No more necessary	Water	Reclamation from Insects	Gas leak	Lift malfunction	Rescue of Animals	False Alarm	Harbours	Aircraft	Others *	Total by Provincial Fire Department	
PUGLIA	BARI	9.550	1.840	1.173	1.336	118	538	234	1.248	390	24	539	407	574	185	19	9	585	0	18.769
	BRINDISI	4.525	650	246	276	97	247	258	322	130	81	136	114	180	35	35	4	516	0	7.852
	FOGGIA	6.598	1.338	497	642	123	338	350	625	273	105	230	162	88	103	6	2	445	0	11.925
	LECCE	8.660	658	416	219	189	351	211	526	233	48	179	181	367	101	20	0	604	0	12.963
	TARANTO	5.132	1.253	620	682	133	232	212	440	305	36	207	258	222	63	43	1	579	0	10.418
SARDEGNA	CAGLIARI	4.132	2.006	596	862	108	330	216	315	331	131	210	354	175	93	62	37	1.175	1	11.134
	NUORO	2.144	577	330	406	143	568	632	199	307	196	96	52	86	45	6	0	710	0	6.497
	ORISTANO	1.400	284	86	178	75	120	175	80	100	296	36	21	66	32	13	0	469	0	3.431
SASSARI	2.488	2.357	825	812	414	1.009	324	156	535	110	309	289	168	51	76	129	1.573	0	11.625	
SICILIA	AGRIGENTO	4.058	895	289	426	107	107	209	235	204	47	119	107	93	12	11	9	401	0	7.329
	CALTANISSETTA	3.651	983	446	445	168	161	217	228	185	207	143	185	63	20	0	0	404	0	7.506
	CATANIA	8.177	2.462	1.248	1.146	276	261	167	560	267	310	556	567	286	108	29	4	1.036	0	17.460
	ENNA	2.220	242	113	288	187	70	198	158	117	124	43	27	76	13	1	0	508	0	4.385
	MESSINA	4.913	1.384	582	1.001	210	130	234	369	176	149	194	244	136	65	24	3	652	1	10.467
	PALERMO	7.435	1.984	1.642	1.567	141	214	339	891	506	123	678	418	320	71	37	14	1.534	1	17.915
	RAGUSA	2.143	683	146	138	125	153	77	597	171	149	105	103	96	46	2	8	686	0	5.428
	SIRACUSA	4.523	798	327	419	173	131	104	357	211	30	150	201	98	78	10	0	362	3	7.975
TRAPANI	6.276	1.152	416	449	145	154	130	316	228	183	181	137	215	61	34	15	1.090	0	11.182	
TOSCANA	AREZZO	1.979	1.695	646	453	225	296	242	218	164	30	135	107	73	19	6	3	304	0	6.595
	FIRENZE	3.537	3.407	1.399	1.170	248	418	552	349	395	182	549	429	246	108	13	12	603	1	13.618
	GROSSETO	1.881	1.258	400	225	170	333	250	160	113	179	188	64	116	97	4	0	644	0	6.082
	LIVORNO	1.339	1.498	643	718	108	212	273	268	320	11	166	197	114	176	50	1	636	0	6.730
	LUCCA	1.423	968	436	436	103	151	264	290	116	233	193	71	150	95	7	0	344	0	5.280
	MASSA	836	718	266	176	126	120	377	173	90	314	100	45	45	56	13	0	281	0	3.736
	PISA	1.725	1.799	476	501	143	316	536	193	210	384	245	146	76	88	7	1	326	0	7.172
	PISTOIA	1.524	1.036	394	311	149	210	290	107	139	75	185	103	122	32	4	0	322	0	5.003
PRATO	876	1.098	395	408	105	116	142	192	159	239	151	133	77	45	2	1	470	0	4.609	
SIENA	1.439	1.307	274	279	145	391	225	263	193	185	128	29	133	76	0	2	270	0	5.339	
UMBRIA	PERUGIA	3.412	3.974	589	2.370	5.139	879	787	711	449	1.393	314	222	294	200	3	1	2.507	0	23.244
	TERNI	1.249	1.113	298	366	152	227	533	244	138	436	112	69	66	81	0	0	268	0	5.352
VENETO	BELLUNO	1.151	689	878	340	606	825	171	262	325	28	85	28	264	76	10	0	738	0	6.476
	PADOVA	2.082	1.442	854	173	128	688	226	319	183	91	228	110	166	36	22	3	704	3	7.458
	ROVIGO	1.042	568	257	221	70	716	845	152	93	316	124	24	82	23	17	2	795	0	5.347
	TREVISO	2.154	1.248	790	209	114	699	603	342	346	8	165	89	223	55	20	0	1.177	0	8.242
	VENEZIA	2.871	3.591	1.101	555	339	1.072	1.289	356	543	146	419	273	264	108	845	49	2.358	3	16.182
	VERONA	2.220	807	785	200	104	548	231	437	179	242	304	91	147	49	52	19	698	0	7.113
VICENZA	2.205	1.369	813	107	140	431	235	312	205	0	148	137	174	56	20	5	553	0	6.910	
TOTAL		325.941	145.390	79.369	70.170	43.756	42.244	37.338	35.853	35.160	26.627	26.223	20.477	16.092	####	2.707	680	83.678	33	1.000.071

(*) Rescue event report still open, data partially inserted.

Table 20 (3/3) –Distribution of interventions by province in 2017.

4.4.2 Urgent Technical Rescue interventions related to population in each province.

The following picture gives a representation of the distribution of intervention at provincial level, conducted in 2017 for each ten thousand inhabitants.



Picture 55 – Distribution at provincial level, of the number of interventions for each ten thousand inhabitants.

The following table shows for the year 2017, the number of interventions performed at provincial level for each ten thousand inhabitants. Data of population have been assumed from the Italian ISTAT – Superior Institute for Statistics, updated at 31st December 2016.

REGION	Provincial Fire Department	Fires and Explosions	Doors and Windows Openings	Rescue of person	Safety of buildings and Structures	Recoveries	Road accidents	Unstable Trees	Accidents solved by others/No more necessary	Water	Reclamation from Insects	Gas leak	Lift malfunction	Rescue of Animals	False Alarm	Harbours	Aircraft	Others	No. Rescue events by Provincial Fire Department every 10.000 inhabitants
ABRUZZO	CHIETI	52,5	33,9	10,7	16,4	8,4	7,3	16,8	7,8	10,3	8,6	5,2	3,9	1,6	1,0	0,1	0,0	16,6	201,0
	L'AQUILA	81,5	41,3	12,8	52,7	32,4	10,3	8,7	5,0	9,5	7,7	5,6	4,4	2,9	2,3	0,0	0,3	19,6	297,1
	PESCARA	64,9	42,3	14,2	33,5	8,6	6,5	19,7	9,0	16,5	10,6	7,9	8,0	3,0	1,8	4,1	0,3	19,7	270,3
	TERAMO	44,7	31,4	12,6	114,7	54,0	6,7	12,8	9,5	10,4	3,9	6,0	3,1	4,5	0,9	0,6	0,0	21,0	336,7
BASILICATA	MATERA	159,6	27,8	10,1	11,9	9,6	6,7	14,8	10,1	11,0	5,6	3,9	3,2	4,3	2,2	0,0	0,0	18,3	299,4
	POTENZA	92,5	12,5	5,6	9,0	4,6	4,7	12,1	6,6	6,2	14,6	2,3	1,2	2,7	0,3	0,2	0,0	13,2	188,3
CALABRIA	CATANZARO	134,4	34,0	9,6	14,0	6,2	9,5	7,4	7,6	10,1	8,4	4,6	4,3	3,1	0,8	0,1	0,4	15,9	270,4
	COSENZA	94,7	17,0	6,6	5,7	1,7	2,8	2,6	3,0	5,2	1,3	2,7	2,9	1,4	0,6	0,1	0,0	9,6	157,7
	CROTONE	188,0	67,0	9,2	20,1	6,6	5,2	10,1	13,5	9,7	6,3	5,1	6,9	3,7	0,9	0,2	0,2	21,3	373,9
	REGGIO CALABRIA	114,7	29,8	11,1	14,4	6,5	5,8	5,8	5,6	4,4	1,8	2,1	3,1	1,2	1,2	0,8	0,1	7,1	215,6
	VIBO VALENTIA	168,1	22,5	12,4	10,9	4,6	6,1	14,5	4,1	6,0	9,5	3,6	2,2	3,7	1,2	0,1	0,0	27,4	296,8
CAMPANIA	AVELLINO	83,4	25,0	5,9	8,9	6,4	3,3	8,5	8,8	9,4	13,6	4,2	3,0	3,2	0,7	0,0	0,0	15,2	199,6
	BENEVENTO	128,9	29,0	5,8	14,4	7,9	5,8	15,0	6,5	9,4	20,6	3,2	3,0	3,1	1,0	0,1	0,0	21,1	274,6
	CASERTA	74,8	14,3	4,0	7,4	1,4	2,4	3,2	6,0	3,6	1,6	3,0	1,8	1,4	0,8	0,0	0,0	5,3	131,1
	NAPOLI	47,7	22,7	5,2	17,0	13,7	0,9	1,3	6,9	7,1	0,7	4,3	1,9	2,7	0,7	0,1	0,0	12,2	145,0
	SALERNO	69,6	21,4	4,5	10,6	2,6	2,4	5,1	4,4	5,1	4,3	3,7	2,9	1,8	0,8	0,2	0,0	7,4	146,9
EMILIA ROMAGNA	BOLOGNA	51,8	52,1	11,7	6,1	3,3	10,1	10,6	7,2	7,6	15,5	5,7	4,0	3,2	2,7	0,2	0,1	14,1	206,0
	FERRARA	40,2	42,4	8,1	6,2	2,1	13,8	23,4	4,9	4,3	4,0	4,6	2,8	2,4	1,0	0,4	0,0	23,7	184,4
	FORLÌ	44,2	47,6	10,2	4,1	2,2	7,1	17,0	2,9	3,0	14,4	3,4	2,9	2,2	0,5	0,2	0,0	23,1	185,0
	MODENA	45,4	38,9	9,2	2,8	1,6	8,1	6,5	5,2	4,1	13,1	3,8	2,1	1,7	3,1	0,1	0,0	10,9	156,6
	PARMA	39,7	16,4	11,0	4,6	2,1	11,6	5,1	6,1	3,4	2,3	3,6	2,4	3,1	2,3	0,2	0,1	10,3	124,4
	PIACENZA	45,0	10,1	20,6	1,3	0,6	19,8	7,5	3,5	7,0	0,2	4,6	4,0	2,4	1,2	0,0	0,0	10,6	138,5
	RAVENNA	36,9	54,0	11,9	3,4	1,9	10,2	14,9	5,8	3,5	3,8	6,2	3,0	2,4	1,4	0,6	0,0	25,4	185,3
	REGGIO EMILIA	38,6	27,3	13,6	1,1	1,6	6,2	4,7	5,7	2,0	5,0	3,0	2,1	1,7	2,1	0,0	0,0	7,8	122,4
	RIMINI	38,7	32,4	12,5	4,1	2,5	6,0	13,5	7,6	1,9	7,6	3,0	1,6	2,8	1,6	1,1	0,2	16,8	153,9

Table 21 (1/3) – Number of interventions performed in 2017 at provincial level for each 10.000 inhabitants, split by type

REGION	Provincial Fire Department	Fires and Explosions	Doors and Windows Openings	Rescue of person	Safety of buildings and Structures	Recoveries	Road accidents	Unstable Trees	Accidents solved by others/No more necessary	Water	Reclamation from Insects	Gas leak	Lift malfunction	Rescue of Animals	False Alarm	Harbours	Aircraft	Others	No. Rescue events by Provincial Fire Department every 10.000 inhabitants
FRIULI V G	GORIZIA	37,2	44,0	26,1	10,1	5,2	19,9	24,4	5,4	12,0	19,2	6,1	5,1	5,6	5,8	1,1	2,6	59,7	289,6
	PORDENONE	35,7	54,5	15,5	8,7	4,4	20,3	14,8	4,8	8,2	4,4	4,0	4,1	2,7	1,1	0,1	0,1	26,5	209,8
	TRIESTE	38,8	35,2	37,2	59,3	6,3	15,8	27,5	18,6	38,1	12,0	10,0	7,3	7,2	7,3	5,8	0,1	44,6	371,1
	UDINE	44,5	30,2	19,6	12,2	1,8	26,3	11,2	5,3	11,5	2,1	4,6	1,5	4,5	0,9	0,2	0,1	35,1	211,6
LAZIO	FROSINONE	85,1	21,0	6,8	4,0	2,8	7,9	6,3	2,6	5,5	3,0	4,4	2,1	2,3	1,1	0,1	0,1	16,4	171,6
	LATINA	115,4	18,2	6,7	5,2	1,5	8,0	10,9	8,6	4,8	1,8	4,3	6,7	2,3	1,4	0,6	0,1	11,0	207,5
	RIETI	117,2	24,4	11,8	29,6	20,7	25,2	12,7	15,0	12,3	1,4	6,6	2,1	3,7	0,8	0,0	0,3	60,3	344,3
	ROMA	61,6	17,2	18,8	11,6	0,5	3,4	7,5	9,5	7,1	1,4	7,6	7,6	1,5	1,4	0,1	0,1	9,6	166,6
	VITERBO	66,7	37,7	9,5	13,5	5,4	6,2	9,5	10,4	5,2	10,5	5,7	4,6	1,6	1,7	1,1	0,0	8,7	198,0
LIGURIA	GENOVA	32,8	53,8	36,7	9,9	1,2	4,5	4,1	6,2	8,5	0,3	8,2	7,4	3,5	2,6	0,6	0,5	18,0	198,8
	IMPERIA	52,5	57,5	31,0	5,9	2,8	7,8	4,2	5,5	6,6	5,7	9,8	5,3	4,8	5,1	0,5	0,0	44,1	249,0
	LA SPEZIA	59,8	50,8	27,1	5,9	5,7	11,3	10,0	12,8	9,1	1,6	7,0	4,0	4,6	5,3	2,2	0,0	27,8	244,9
	SAVONA	49,0	44,7	34,1	10,9	2,6	16,7	10,6	9,8	8,7	19,3	8,5	6,7	9,1	8,2	1,0	0,1	34,7	274,7
LOMBARDIA	BERGAMO	22,8	6,6	11,7	2,8	2,0	8,8	1,9	5,4	3,0	1,3	1,8	0,6	1,4	0,9	0,2	0,1	3,7	75,2
	BRESCIA	28,8	7,5	10,6	2,4	1,9	9,1	3,5	3,2	3,5	3,9	1,7	1,3	1,7	0,6	0,5	0,1	6,2	86,4
	COMO	33,5	5,9	16,2	3,2	2,6	11,7	4,1	5,5	6,3	1,0	2,6	1,6	3,5	1,5	0,6	0,0	10,5	110,4
	CREMONA	21,9	5,3	14,0	5,5	1,9	12,3	5,3	2,9	6,6	0,6	2,3	2,7	2,6	0,3	0,2	0,2	10,9	95,6
	LECCO	30,6	5,0	20,9	4,9	2,8	9,5	7,6	2,2	5,7	3,4	2,9	0,7	2,6	0,8	2,0	0,0	7,2	108,8
	LODI	40,5	8,1	19,5	3,9	2,7	21,2	5,0	2,1	8,3	0,0	4,2	3,7	2,9	1,0	0,2	0,1	10,9	134,4
	MANTOVA	32,4	31,1	9,2	1,9	1,6	12,9	3,4	5,9	2,1	4,1	2,8	2,6	1,5	0,6	0,0	0,1	9,1	121,4
	MILANO	37,0	13,4	30,0	6,3	2,0	5,4	2,6	3,0	12,6	4,0	7,2	6,5	2,9	1,0	0,1	0,0	6,8	140,9
	PAVIA	43,1	8,7	15,9	2,9	1,8	10,2	4,2	2,2	6,8	2,7	2,9	2,5	2,1	1,0	0,1	0,0	15,5	122,4
	SONDRIO	58,1	6,2	22,0	8,9	11,3	15,7	10,3	5,1	13,3	2,9	3,3	4,0	5,3	2,5	0,3	0,0	49,7	219,1
VARESE	27,5	4,3	17,9	2,2	2,1	9,0	4,6	7,4	5,2	1,2	2,5	1,4	1,8	2,3	0,6	0,1	14,7	104,7	
MARCHE	ANCONA	36,9	34,0	13,2	12,6	7,5	13,0	9,1	6,8	5,6	6,2	4,7	3,5	1,6	1,2	0,9	0,1	20,4	177,3
	ASCOLI PICENO	68,7	78,7	22,6	290,8	97,4	25,5	28,7	12,3	9,7	21,1	9,4	3,5	7,9	1,8	0,1	0,0	81,4	759,7
	MACERATA	34,0	52,1	10,8	138,9	422,9	16,7	13,4	5,9	5,1	18,7	4,0	2,7	3,7	1,1	0,2	0,0	102,0	832,3
	PESARO	35,5	27,0	10,7	4,4	4,2	10,2	9,2	6,1	2,9	9,8	3,4	2,6	2,5	1,3	0,1	0,1	17,9	147,8
MOLISE	CAMPOBASSO	84,1	31,2	10,9	20,9	11,7	5,2	9,9	6,4	9,7	19,8	4,5	5,4	2,7	1,0	0,6	0,0	22,2	246,0
	ISERNIA	141,2	38,6	62,2	36,9	42,9	25,6	42,4	3,8	18,7	32,9	4,8	4,1	6,1	1,4	0,0	0,0	23,2	484,9
PIEMONTE	ALESSANDRIA	50,4	57,7	14,5	5,8	2,2	9,3	5,2	2,4	4,5	1,8	4,4	7,4	4,3	3,4	0,0	0,1	14,1	187,5
	ASTI	51,7	52,4	16,4	1,9	2,4	10,7	4,1	3,1	3,0	3,3	4,1	4,5	4,4	1,5	0,0	0,0	14,5	178,3
	BIELLA	36,1	19,0	16,7	2,6	2,7	6,2	8,3	4,4	4,7	29,4	5,7	2,0	4,3	2,5	0,0	0,3	15,0	160,0
	CUNEO	48,7	38,0	11,6	1,4	1,9	15,9	2,2	2,9	4,1	14,7	3,9	1,7	3,9	1,3	0,0	0,0	14,3	166,4
	NOVARA	25,8	16,5	8,8	6,5	2,4	6,2	5,2	3,3	6,7	9,0	3,7	3,4	3,2	1,2	0,0	0,0	13,2	115,0
	TORINO	53,3	31,3	27,6	5,2	1,3	6,7	1,6	7,0	5,8	0,5	6,3	3,9	3,0	2,4	0,0	0,2	10,9	167,0
	VERBANO-C.-O.	49,9	18,9	17,1	13,4	7,2	14,1	12,8	4,7	12,7	85,0	5,9	2,3	7,9	4,1	1,3	0,0	19,6	276,9
VERCELLI	40,9	25,7	12,5	8,6	5,5	13,0	7,3	5,2	8,7	29,1	4,2	5,6	3,2	4,4	0,0	0,0	19,8	193,6	

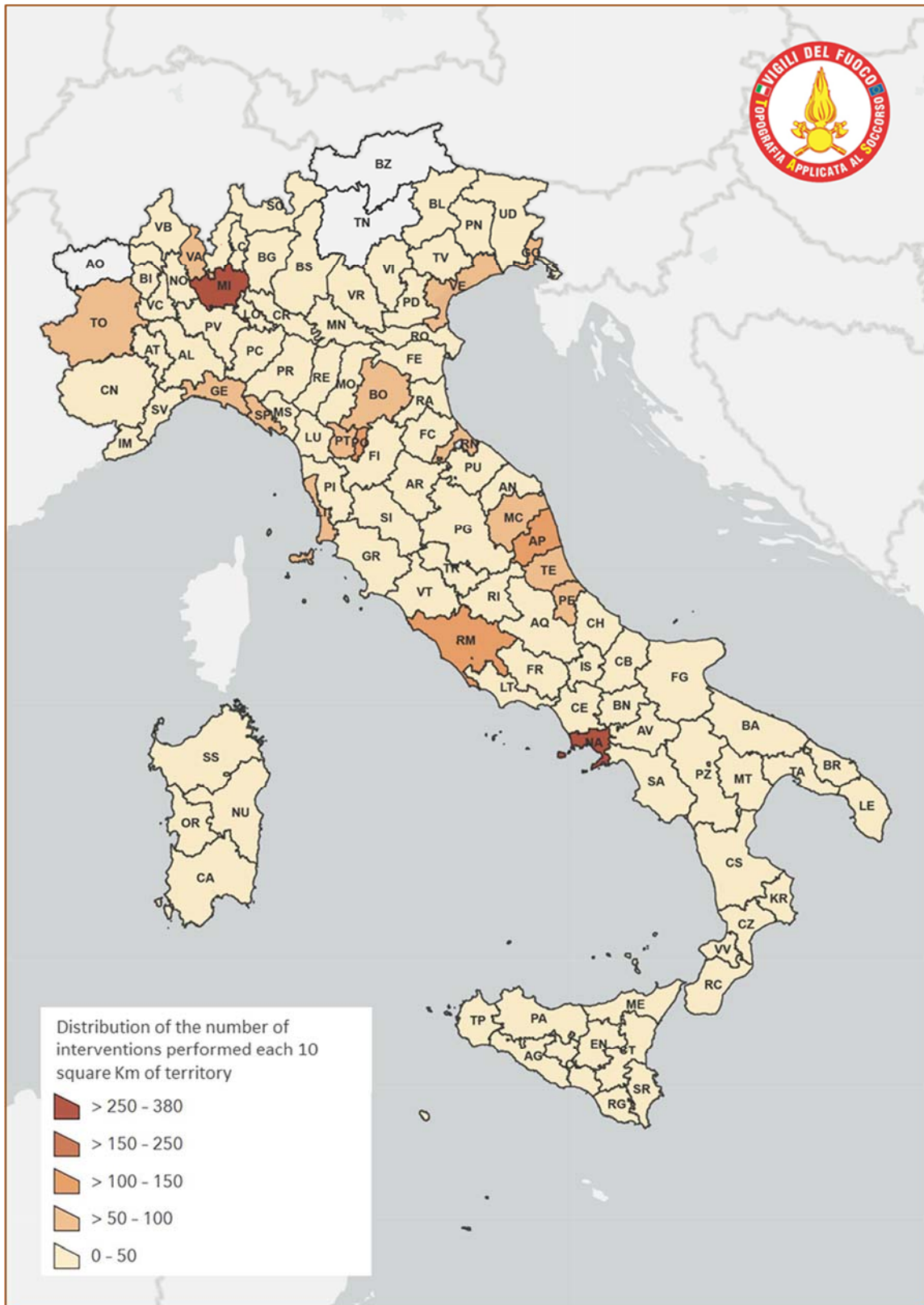
Table 21 (2/3) –Number of interventions performed in 2017 at provincial level for each 10.000 inhabitants, split by type.

REGION	Provincial Fire Department	Fires and Explosions	Doors and Windows Openings	Rescue of person	Safety of buildings and Structures	Recoveries	Road accidents	Unstable Trees	Accidents solved by others/No more necessary	Water	Reclamation from Insects	Gas leak	Lift malfunction	Rescue of Animals	False Alarm	Harbours	Aircraft	Others	No. Rescue events by Provincial Fire Department every 10.000 inhabitants
PUGLIA	BARI	76,6	14,8	9,4	10,7	0,9	4,3	1,9	10,0	3,1	0,2	4,3	3,3	4,6	1,5	0,2	0,1	4,7	150,5
	BRINDISI	113,0	16,2	6,1	6,9	2,4	6,2	6,4	8,0	3,2	2,0	3,4	2,8	4,5	0,9	0,9	0,1	12,9	196,1
	FOGGIA	105,5	21,4	7,9	10,3	2,0	5,4	5,6	10,0	4,4	1,7	3,7	2,6	1,4	1,6	0,1	0,0	7,1	190,6
	LECCE	108,1	8,2	5,2	2,7	2,4	4,4	2,6	6,6	2,9	0,6	2,2	2,3	4,6	1,3	0,2	0,0	7,5	161,8
	TARANTO	87,8	21,4	10,6	11,7	2,3	4,0	3,6	7,5	5,2	0,6	3,5	4,4	3,8	1,1	0,7	0,0	9,9	178,3
SARDEGNA	CAGLIARI	54,3	26,4	7,8	11,3	1,4	4,3	2,8	4,1	4,3	1,7	2,8	4,7	2,3	1,2	0,8	0,5	15,4	146,3
	NUORO	83,0	22,3	12,8	15,7	5,5	22,0	24,5	7,7	11,9	7,6	3,7	2,0	3,3	1,7	0,2	0,0	27,5	251,4
	ORISTANO	93,7	19,0	5,8	11,9	5,0	8,0	11,7	5,4	6,7	19,8	2,4	1,4	4,4	2,1	0,9	0,0	31,4	229,6
	SASSARI	53,1	50,3	17,6	17,3	8,8	21,5	6,9	3,3	11,4	2,3	6,6	6,2	3,6	1,1	1,6	2,8	33,6	247,9
SICILIA	AGRIGENTO	90,9	20,0	6,5	9,5	2,4	2,4	4,7	5,3	4,6	1,1	2,7	2,4	2,1	0,3	0,2	0,2	9,0	164,1
	CALTANISSETTA	133,8	36,0	16,3	16,3	6,2	5,9	8,0	8,4	6,8	7,6	5,2	6,8	2,3	0,7	0,0	0,0	14,8	275,0
	CATANIA	75,9	22,8	11,6	10,6	2,6	2,4	1,5	5,2	2,5	2,9	5,2	5,3	2,7	1,0	0,3	0,0	9,6	162,0
	ENNA	128,0	14,0	6,5	16,6	10,8	4,0	11,4	9,1	6,7	7,2	2,5	1,6	4,4	0,7	0,1	0,0	29,3	252,9
	MESSINA	75,7	21,3	9,0	15,4	3,2	2,0	3,6	5,7	2,7	2,3	3,0	3,8	2,1	1,0	0,4	0,0	10,0	161,2
	PALERMO	59,8	16,0	13,2	12,6	1,1	1,7	2,7	7,2	4,1	1,0	5,5	3,4	2,6	0,6	0,3	0,1	12,3	144,2
	RAGUSA	69,6	22,2	4,7	4,5	4,1	5,0	2,5	19,4	5,6	4,8	3,4	3,3	3,1	1,5	0,1	0,3	22,3	176,4
	SIRACUSA	113,1	20,0	8,2	10,5	4,3	3,3	2,6	8,9	5,3	0,8	3,8	5,0	2,5	2,0	0,3	0,0	9,1	199,4
TRAPANI	146,1	26,8	9,7	10,5	3,4	3,6	3,0	7,4	5,3	4,3	4,2	3,2	5,0	1,4	0,8	0,3	25,4	260,3	
TOSCANA	AREZZO	57,6	49,4	18,8	13,2	6,6	8,6	7,0	6,4	4,8	0,9	3,9	3,1	2,1	0,6	0,2	0,1	8,9	192,1
	FIRENZE	36,4	35,0	14,4	12,0	2,6	4,3	5,7	3,6	4,1	1,9	5,6	4,4	2,5	1,1	0,1	0,1	6,2	140,1
	GROSSETO	85,5	57,1	18,2	10,2	7,7	15,1	11,4	7,3	5,1	8,1	8,5	2,9	5,3	4,4	0,2	0,0	29,3	276,3
	LIVORNO	40,0	44,7	19,2	21,4	3,2	6,3	8,2	8,0	9,6	0,3	5,0	5,9	3,4	5,3	1,5	0,0	19,0	201,0
	LUCCA	36,7	25,0	11,2	11,2	2,7	3,9	6,8	7,5	3,0	6,0	5,0	1,8	3,9	2,5	0,2	0,0	8,9	136,2
	MASSA	41,9	36,0	13,3	8,8	6,3	6,0	18,9	8,7	4,5	15,7	5,0	2,3	2,3	2,8	0,7	0,0	14,1	187,3
	PISA	42,0	43,8	11,6	12,2	3,5	7,7	13,0	4,7	5,1	9,3	6,0	3,6	1,9	2,1	0,2	0,0	7,9	174,6
	PISTOIA	53,0	36,0	13,7	10,8	5,2	7,3	10,1	3,7	4,8	2,6	6,4	3,6	4,2	1,1	0,1	0,0	11,2	173,9
	PRATO	35,7	44,8	16,1	16,6	4,3	4,7	5,8	7,8	6,5	9,7	6,2	5,4	3,1	1,8	0,1	0,0	19,2	187,9
SIENA	54,0	49,0	10,3	10,5	5,4	14,7	8,4	9,9	7,2	6,9	4,8	1,1	5,0	2,9	0,0	0,1	10,1	200,3	
UMBRIA	PERUGIA	52,1	60,7	9,0	36,2	78,5	13,4	12,0	10,9	6,9	21,3	4,8	3,4	4,5	3,1	0,0	0,0	38,3	354,9
	TERNI	54,7	48,8	13,1	16,0	6,7	9,9	23,4	10,7	6,0	19,1	4,9	3,0	2,9	3,5	0,0	0,0	11,7	234,5
VENETO	BELLUNO	54,9	32,9	41,9	16,2	28,9	39,3	8,2	12,5	15,5	1,3	4,1	1,3	12,6	3,6	0,5	0,0	35,2	308,8
	PADOVA	22,6	15,7	9,3	1,9	1,4	7,5	2,5	3,5	2,0	1,0	2,5	1,2	1,8	0,4	0,2	0,0	7,6	81,0
	ROVIGO	43,0	23,5	10,6	9,1	2,9	29,6	34,9	6,3	3,8	13,0	5,1	1,0	3,4	0,9	0,7	0,1	32,8	220,8
	TREVISO	24,6	14,2	9,0	2,4	1,3	8,0	6,9	3,9	3,9	0,1	1,9	1,0	2,5	0,6	0,2	0,0	13,4	94,1
	VENEZIA	33,9	42,4	13,0	6,6	4,0	12,7	15,2	4,2	6,4	1,7	5,0	3,2	3,1	1,3	10,0	0,6	27,9	191,2
	VERONA	24,7	9,0	8,7	2,2	1,2	6,1	2,6	4,9	2,0	2,7	3,4	1,0	1,6	0,5	0,6	0,2	7,8	79,0
VICENZA	25,7	15,9	9,5	1,2	1,6	5,0	2,7	3,6	2,4	0,0	1,7	1,6	2,0	0,7	0,2	0,1	6,4	80,5	
TOTAL:		57,4	25,6	14,0	12,3	7,7	7,4	6,6	6,3	6,2	4,7	4,6	3,6	2,8	1,5	0,5	0,1	14,7	176,0

Table 21 (3/3) – Number of interventions performed in 2017 at provincial level for each 10.000 inhabitants, split by type.

4.4.3 Urgent Technical Rescue interventions related to extension of the territory of the Department.

The following pictures gives a cartographic representation of the interventions conducted in each Province for each 10 square Km of extension of the territory.



Picture 56 –Distribution at provincial level of the number of interventions performed each 10 square Km of territory.

The following table gives the data of number of interventions performed in 2017 for 10 square Km provincial territory extension. The histograms in the cells are proportional to the number of interventions performed for each type of rescue event in each province.

REGION	Provincial Fire Department	Fires and Explosions	Doors and Windows Openings	Rescue of person	Safety of buildings and Structures	Recoveries	Road accidents	Unstable Trees	Accidents solved by others/No more necessary	Water	Reclamation from Insects	Gas leak	Lift malfunction	Rescue of Animals	False Alarm	Harbours	Aircraft	Others	No. Rescue events by Provincial Fire Department every 10 KM2
ABRUZZO	CHIETI	7,8	5,1	1,6	2,4	1,3	1,1	2,5	1,2	1,5	1,3	0,8	0,6	0,2	0,1	0,0	0,0	2,5	30,0
	L'AQUILA	4,8	2,4	0,8	3,1	1,9	0,6	0,5	0,3	0,6	0,5	0,3	0,3	0,2	0,1	0,0	0,0	1,2	17,5
	PESCARA	16,6	10,8	3,6	8,6	2,2	1,7	5,0	2,3	4,2	2,7	2,0	2,0	0,8	0,5	1,0	0,1	5,0	69,1
	TERAMO	7,0	4,9	2,0	18,0	8,5	1,0	2,0	1,5	1,6	0,6	0,9	0,5	0,7	0,1	0,1	0,0	3,3	52,8
BASILICATA	MATERA	9,2	1,6	0,6	0,7	0,6	0,4	0,9	0,6	0,6	0,3	0,2	0,2	0,2	0,1	0,0	0,0	1,1	17,2
	POTENZA	5,3	0,7	0,3	0,5	0,3	0,3	0,7	0,4	0,4	0,8	0,1	0,1	0,2	0,0	0,0	0,0	0,8	10,8
CALABRIA	CATANZARO	20,0	5,1	1,4	2,1	0,9	1,4	1,1	1,1	1,5	1,3	0,7	0,6	0,5	0,1	0,0	0,1	2,4	40,3
	COSENZA	10,1	1,8	0,7	0,6	0,2	0,3	0,3	0,3	0,6	0,1	0,3	0,3	0,1	0,1	0,0	0,0	1,0	16,8
	CROTONE	18,5	6,6	0,9	2,0	0,6	0,5	1,0	1,3	1,0	0,6	0,5	0,7	0,4	0,1	0,0	0,0	2,1	36,8
	REGGIO CALABRIA	19,7	5,1	1,9	2,5	1,1	1,0	1,0	1,0	0,8	0,3	0,4	0,5	0,2	0,2	0,1	0,0	1,2	37,0
	VIBO VALENTIA	23,8	3,2	1,8	1,5	0,7	0,9	2,1	0,6	0,9	1,3	0,5	0,3	0,5	0,2	0,0	0,0	3,9	42,1
CAMPANIA	AVELLINO	12,8	3,8	0,9	1,4	1,0	0,5	1,3	1,3	1,4	2,1	0,6	0,5	0,5	0,1	0,0	0,0	2,3	30,5
	BENEVENTO	17,6	4,0	0,8	2,0	1,1	0,8	2,0	0,9	1,3	2,8	0,4	0,4	0,4	0,1	0,0	0,0	2,9	37,6
	CASERTA	25,5	4,9	1,4	2,5	0,5	0,8	1,1	2,0	1,2	0,6	1,0	0,6	0,5	0,3	0,0	0,0	1,8	44,8
	NAPOLI	123,4	58,9	13,4	44,0	35,6	2,3	3,3	18,0	18,3	1,9	11,1	4,8	6,9	1,8	0,2	0,1	31,6	375,4
	SALERNO	15,3	4,7	1,0	2,3	0,6	0,5	1,1	1,0	1,1	0,9	0,8	0,6	0,4	0,2	0,0	0,0	1,6	32,4
EMILIA ROMAGNA	BOLOGNA	13,7	13,7	3,1	1,6	0,9	2,7	2,8	1,9	2,0	4,1	1,5	1,1	0,8	0,7	0,0	0,0	3,7	54,3
	FERRARA	5,4	5,7	1,1	0,8	0,3	1,8	3,1	0,7	0,6	0,5	0,6	0,4	0,3	0,1	0,0	0,0	3,2	24,7
	FORLI'	7,3	7,8	1,7	0,7	0,4	1,2	2,8	0,5	0,5	2,4	0,6	0,5	0,4	0,1	0,0	0,0	3,8	30,4
	MODENA	11,6	9,9	2,3	0,7	0,4	2,1	1,7	1,3	1,0	3,3	1,0	0,5	0,4	0,8	0,0	0,0	2,8	40,0
	PARMA	4,9	2,0	1,4	0,6	0,3	1,4	0,6	0,8	0,4	0,3	0,4	0,3	0,4	0,3	0,0	0,0	1,3	15,4
	PIACENZA	5,0	1,1	2,3	0,1	0,1	2,2	0,8	0,4	0,8	0,0	0,5	0,4	0,3	0,1	0,0	0,0	1,2	15,2
	RAVENNA	7,6	11,2	2,5	0,7	0,4	2,1	3,1	1,2	0,7	0,8	1,3	0,6	0,5	0,3	0,1	0,0	5,3	38,3
	REGGIO EMILIA	3,7	6,2	3,1	0,2	0,4	1,4	1,1	1,3	0,4	1,1	0,7	0,5	0,4	0,5	0,0	0,0	1,8	27,7
RIMINI	14,4	12,0	4,7	1,5	0,9	2,2	5,0	2,8	0,7	2,8	1,1	0,6	1,1	0,6	0,4	0,1	6,3	57,3	

Table 22 (1/3) – Number of interventions performed in 2017 at provincial level for each 10 square Km of provincial territory extension, split by type.

REGION	Provincial Fire Department	Fires and Explosions	Doors and Windows Openings	Rescue of person	Safety of buildings and Structures	Recoveries	Road accidents	Unstable Trees	Accidents solved by others/No more necessary	Water	Reclamation from Insects	Gas leak	Lift malfunction	Rescue of Animals	False Alarm	Harbours	Aircraft	Others	No. Rescue events by Provincial Fire Department every 10 KM2
FRIULI V G	GORIZIA	11,2	13,2	7,8	3,0	1,6	6,0	7,3	1,6	3,6	5,7	1,8	1,5	1,7	1,7	0,3	0,8	17,9	86,7
	PORDENONE	4,9	7,4	2,1	1,2	0,6	2,8	2,0	0,7	1,1	0,6	0,5	0,6	0,4	0,2	0,0	0,0	3,6	28,6
	TRIESTE	4,2	3,8	4,1	6,5	0,7	1,7	3,0	2,0	4,2	1,3	1,1	0,8	0,8	0,8	0,6	0,0	4,9	40,6
	UDINE	4,9	3,3	2,1	1,3	0,2	2,9	1,2	0,6	1,3	0,2	0,5	0,2	0,5	0,1	0,0	0,0	3,8	23,1
LAZIO	FROSINONE	12,9	3,2	1,0	0,6	0,4	1,2	1,0	0,4	0,8	0,5	0,7	0,3	0,3	0,2	0,0	0,0	2,5	26,0
	LATINA	27,9	4,4	1,6	1,2	0,4	1,9	2,6	2,1	1,2	0,4	1,0	1,6	0,6	0,3	0,2	0,0	2,7	50,1
	RIETI	6,6	1,4	0,7	1,7	1,2	1,4	0,7	0,8	0,7	0,1	0,4	0,1	0,2	0,0	0,0	0,0	3,4	19,4
	ROMA	45,9	12,8	14,0	8,6	0,4	2,5	5,6	7,1	5,3	1,0	5,6	5,7	1,1	1,1	0,1	0,1	7,2	124,1
LIGURIA	VITERBO	5,8	3,3	0,8	1,2	0,5	0,5	0,8	0,9	0,5	0,9	0,5	0,4	0,1	0,1	0,1	0,0	0,8	17,1
	GENOVA	15,3	25,1	17,1	4,6	0,6	2,1	1,9	2,9	4,0	0,2	3,8	3,4	1,6	1,2	0,3	0,2	8,4	92,6
	IMPERIA	9,7	10,7	5,7	1,1	0,5	1,5	0,8	1,0	1,2	1,0	1,8	1,0	0,9	1,0	0,1	0,0	8,2	46,2
	LA SPEZIA	14,8	12,6	6,7	1,5	1,4	2,8	2,5	3,2	2,3	0,4	1,7	1,0	1,1	1,3	0,5	0,0	6,9	60,8
LOMBARDIA	SAVONA	3,9	8,1	6,2	2,0	0,5	3,0	1,9	1,8	1,6	3,5	1,5	1,2	1,6	1,5	0,2	0,0	6,3	49,8
	BERGAMO	9,0	2,6	4,6	1,1	0,8	3,5	0,8	2,1	1,2	0,5	0,7	0,3	0,6	0,3	0,1	0,0	1,5	29,7
	BRESCIA	7,5	1,9	2,8	0,6	0,5	2,4	0,9	0,8	0,9	1,0	0,4	0,3	0,4	0,2	0,1	0,0	1,6	22,4
	COMO	15,4	2,7	7,4	1,5	1,2	5,4	1,9	2,5	2,9	0,5	1,2	0,7	1,6	0,7	0,3	0,0	4,8	50,6
	CREMONA	4,4	1,1	2,8	1,1	0,4	2,5	1,1	0,6	1,3	0,1	0,5	0,6	0,5	0,1	0,0	0,0	2,2	19,3
	LECCO	12,6	2,1	8,6	2,0	1,1	3,9	3,1	0,9	2,3	1,4	1,2	0,3	1,1	0,3	0,8	0,0	3,0	44,9
	LODI	11,6	2,3	5,6	1,1	0,8	6,1	1,4	0,6	2,4	0,0	1,2	1,1	0,8	0,3	0,1	0,0	3,1	38,4
	MANTOVA	5,7	5,4	1,6	0,3	0,3	2,3	0,6	1,0	0,4	0,7	0,5	0,5	0,3	0,1	0,0	0,0	1,6	21,2
	MILANO	71,2	25,8	57,8	12,1	3,9	10,4	5,1	5,8	24,3	7,8	13,8	12,4	5,7	1,9	0,3	0,1	13,1	271,5
	PAVIA	7,8	1,6	2,9	0,5	0,3	1,8	0,8	0,4	1,2	0,5	0,5	0,4	0,4	0,2	0,0	0,0	2,8	22,1
	SONDRIO	3,3	0,4	1,2	0,5	0,6	0,9	0,6	0,3	0,8	0,2	0,2	0,2	0,3	0,1	0,0	0,0	2,8	12,4
VARESE	20,0	3,1	13,0	1,6	1,5	6,6	3,4	5,4	3,7	0,9	1,8	1,0	1,3	1,6	0,5	0,1	10,7	76,2	
MARCHE	ANCONA	3,9	8,2	3,2	3,0	1,8	3,1	2,2	1,7	1,3	1,5	1,1	0,9	0,4	0,3	0,2	0,0	4,9	42,8
	ASCOLI PICENO	11,8	13,5	3,9	49,8	16,7	4,4	4,9	2,1	1,7	3,6	1,6	0,6	1,4	0,3	0,0	0,0	13,9	130,0
	MACERATA	3,9	6,0	1,2	16,0	48,6	1,9	1,5	0,7	0,6	2,1	0,5	0,3	0,4	0,1	0,0	0,0	11,7	95,6
	PESARO	5,0	3,8	1,5	0,6	0,6	1,4	1,3	0,9	0,4	1,4	0,5	0,4	0,3	0,2	0,0	0,0	2,5	20,9
MOLISE	CAMPOBASSO	6,5	2,4	0,8	1,6	0,9	0,4	0,8	0,5	0,7	1,5	0,3	0,4	0,2	0,1	0,0	0,0	1,7	19,0
	ISERNIA	3,0	2,2	3,5	2,1	2,4	1,5	2,4	0,2	1,1	1,9	0,3	0,2	0,3	0,1	0,0	0,0	1,3	27,5
PIEMONTE	ALESSANDRIA	6,0	6,9	1,7	0,7	0,3	1,1	0,6	0,3	0,5	0,2	0,5	0,9	0,5	0,4	0,0	0,0	1,7	22,5
	ASTI	7,4	7,5	2,4	0,3	0,3	1,5	0,6	0,4	0,4	0,5	0,6	0,6	0,6	0,2	0,0	0,0	2,1	25,7
	BIELLA	7,2	3,8	3,3	0,5	0,5	1,2	1,7	0,9	0,9	5,8	1,1	0,4	0,9	0,5	0,0	0,1	3,0	31,9
	CUNEO	4,1	3,2	1,0	0,1	0,2	1,3	0,2	0,2	0,3	1,3	0,3	0,1	0,3	0,1	0,0	0,0	1,2	14,1
	NOVARA	7,0	4,5	2,4	1,8	0,6	1,7	1,4	0,9	1,8	2,5	1,0	0,9	0,9	0,3	0,0	0,0	3,6	31,3
	TORINO	17,5	10,3	9,1	1,7	0,4	2,2	0,5	2,3	1,9	0,2	2,1	1,3	1,0	0,8	0,0	0,1	3,6	54,9
	VERBANO-C.-O.	3,5	1,3	1,2	0,9	0,5	1,0	0,9	0,3	0,9	6,0	0,4	0,2	0,6	0,3	0,1	0,0	1,4	19,6
	VERCELLI	3,5	2,2	1,1	0,7	0,5	1,1	0,6	0,4	0,7	2,5	0,4	0,5	0,3	0,4	0,0	0,0	1,7	16,4

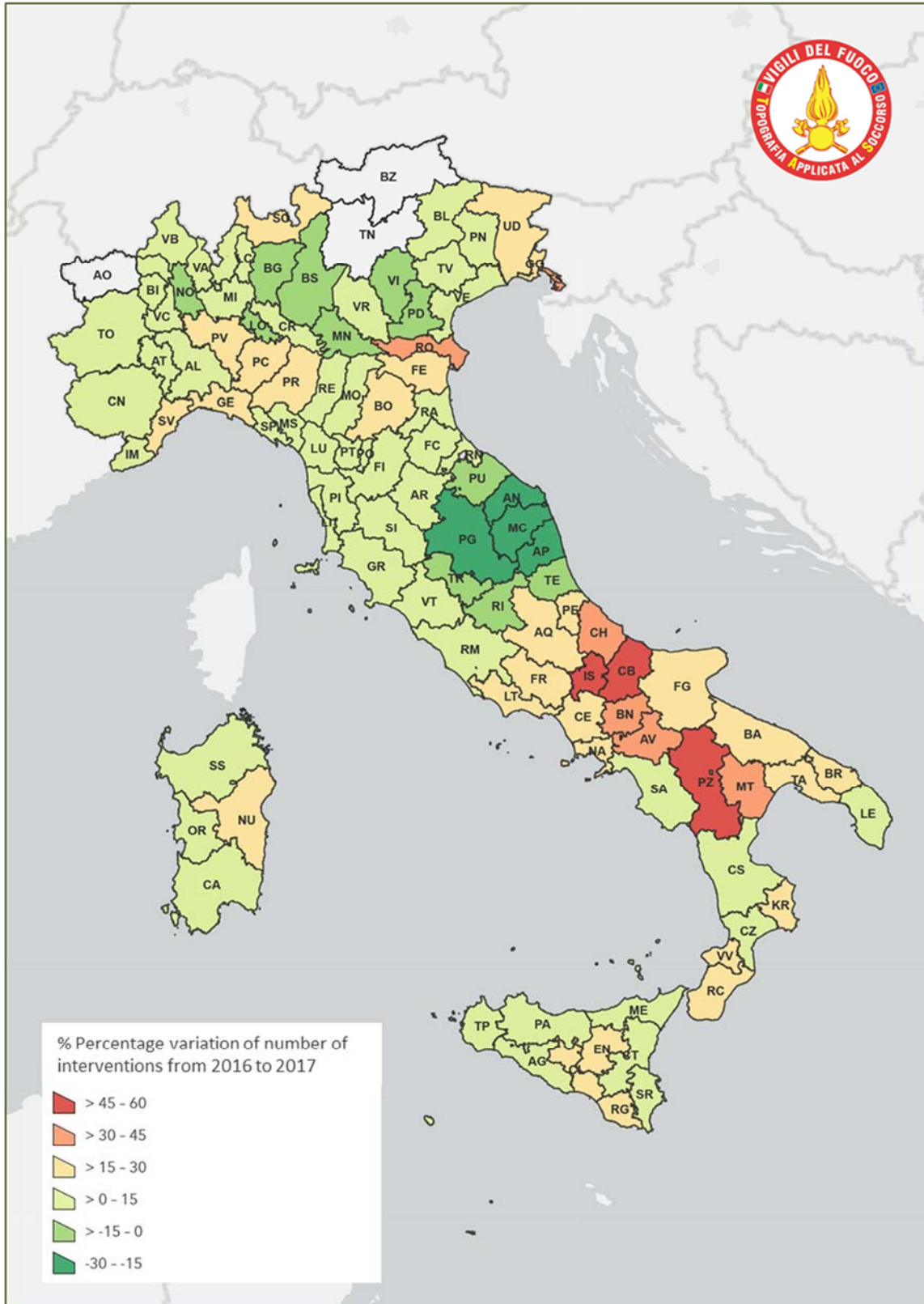
Table 22 (2/3) – Number of interventions performed in 2017 at provincial level for each 10 square Km of provincial territory extension, split by type.

REGION	Provincial Fire Department	Fires and Explosions	Doors and Windows Openings	Rescue of person	Safety of buildings and Structures	Recoveries	Road accidents	Unstable Trees	Accidents solved by others/No more necessary	Water	Reclamation from Insects	Gas leak	Lift malfunction	Rescue of Animals	False Alarm	Harbours	Aircraft	Others	No. Rescue events by Provincial Fire Department every 10 KM2
PUGLIA	BARI	24,7	4,8	3,0	3,5	0,3	1,4	0,6	3,2	1,0	0,1	1,4	1,1	1,5	0,5	0,0	0,0	1,5	48,6
	BRINDISI	24,3	3,5	1,3	1,5	0,5	1,3	1,4	1,7	0,7	0,4	0,7	0,6	1,0	0,2	0,2	0,0	2,8	42,2
	FOGGIA	9,4	1,9	0,7	0,9	0,2	0,5	0,5	0,9	0,4	0,1	0,3	0,2	0,1	0,1	0,0	0,0	0,6	17,0
	LECCE	30,9	2,4	1,5	0,8	0,7	1,3	0,8	1,9	0,8	0,2	0,6	0,6	1,3	0,4	0,1	0,0	2,2	46,3
	TARANTO	20,8	5,1	2,5	2,8	0,5	0,9	0,9	1,8	1,2	0,1	0,8	1,0	0,9	0,3	0,2	0,0	2,3	42,2
SARDEGNA	CAGLIARI	7,2	3,5	1,0	1,5	0,2	0,6	0,4	0,5	0,6	0,2	0,4	0,6	0,3	0,2	0,1	0,1	2,0	19,4
	NUORO	3,3	0,9	0,5	0,6	0,2	0,9	1,0	0,3	0,5	0,3	0,1	0,1	0,1	0,1	0,0	0,0	1,1	10,1
	ORISTANO	3,0	0,6	0,2	0,4	0,2	0,3	0,4	0,2	0,2	0,6	0,1	0,0	0,1	0,1	0,0	0,0	1,0	7,3
	SASSARI	3,4	3,3	1,1	1,1	0,6	1,4	0,4	0,2	0,7	0,2	0,4	0,4	0,2	0,1	0,1	0,2	2,2	16,1
SICILIA	AGRIGENTO	13,3	2,9	0,9	1,4	0,4	0,4	0,7	0,8	0,7	0,2	0,4	0,4	0,3	0,0	0,0	0,0	1,3	24,0
	CALTANISSETTA	17,1	4,6	2,1	2,1	0,8	0,8	1,0	1,1	0,9	1,0	0,7	0,9	0,3	0,1	0,0	0,0	1,9	35,1
	CATANIA	22,9	6,9	3,5	3,2	0,8	0,7	0,5	1,6	0,7	0,9	1,6	1,6	0,8	0,3	0,1	0,0	2,9	48,9
	ENNA	3,6	0,9	0,4	1,1	0,7	0,3	0,8	0,6	0,5	0,5	0,2	0,1	0,3	0,1	0,0	0,0	2,0	17,0
	MESSINA	15,0	4,2	1,8	3,1	0,6	0,4	0,7	1,1	0,5	0,5	0,6	0,7	0,4	0,2	0,1	0,0	2,0	32,0
	PALERMO	14,8	4,0	3,3	3,1	0,3	0,4	0,7	1,8	1,0	0,2	1,4	0,8	0,6	0,1	0,1	0,0	3,1	35,8
	RAGUSA	13,2	4,2	0,9	0,8	0,8	0,9	0,5	3,7	1,1	0,9	0,6	0,6	0,6	0,3	0,0	0,0	4,2	33,4
	SIRACUSA	21,3	3,8	1,5	2,0	0,8	0,6	0,5	1,7	1,0	0,1	0,7	0,9	0,5	0,4	0,0	0,0	1,7	37,5
TRAPANI	25,4	4,7	1,7	1,8	0,6	0,6	0,5	1,3	0,9	0,7	0,7	0,6	0,9	0,2	0,1	0,1	4,4	45,3	
TOSCANA	AREZZO	6,1	5,2	2,0	1,4	0,7	0,9	0,7	0,7	0,5	0,1	0,4	0,3	0,2	0,1	0,0	0,0	0,9	20,4
	FIRENZE	10,1	9,7	4,0	3,3	0,7	1,2	1,6	1,0	1,1	0,5	1,6	1,2	0,7	0,3	0,0	0,0	1,7	38,8
	GROSSETO	4,2	2,8	0,9	0,5	0,4	0,7	0,6	0,4	0,3	0,4	0,4	0,1	0,3	0,2	0,0	0,0	1,4	13,5
	LIVORNO	11,0	12,3	5,3	5,9	0,9	1,7	2,2	2,2	2,6	0,1	1,4	1,6	0,9	1,5	0,4	0,0	5,2	55,4
	LUCCA	3,0	5,5	2,5	2,5	0,6	0,9	1,5	1,6	0,7	1,3	1,1	0,4	0,8	0,5	0,0	0,0	1,9	29,8
	MASSA	7,2	6,2	2,3	1,5	1,1	1,0	3,3	1,5	0,8	2,7	0,9	0,4	0,4	0,5	0,1	0,0	2,4	32,4
	PISA	7,1	7,4	1,9	2,0	0,6	1,3	2,2	0,8	0,9	1,6	1,0	0,6	0,3	0,4	0,0	0,0	1,3	29,3
	PISTOIA	15,8	10,7	4,1	3,2	1,5	2,2	3,0	1,1	1,4	0,8	1,9	1,1	1,3	0,3	0,0	0,0	3,3	51,9
	PRATO	24,0	30,0	10,8	11,2	2,9	3,2	3,9	5,2	4,3	6,5	4,1	3,6	2,1	1,2	0,1	0,0	12,9	126,0
SIENA	3,8	3,4	0,7	0,7	0,4	1,0	0,6	0,7	0,5	0,5	0,3	0,1	0,3	0,2	0,0	0,0	0,7	14,0	
UMBRIA	PERUGIA	5,4	6,3	0,9	3,7	3,1	1,4	1,2	1,1	0,7	2,2	0,5	0,4	0,5	0,3	0,0	0,0	4,0	36,7
	TERNI	5,9	5,2	1,4	1,7	0,7	1,1	2,5	1,1	0,6	2,0	0,5	0,3	0,3	0,4	0,0	0,0	1,3	25,2
VENETO	BELLUNO	3,1	1,9	2,4	0,9	1,7	2,2	0,5	0,7	0,9	0,1	0,2	0,1	0,7	0,2	0,0	0,0	2,0	17,6
	PADOVA	9,7	6,7	4,0	0,8	0,6	3,2	1,1	1,5	0,9	0,4	1,1	0,5	0,8	0,2	0,1	0,0	3,3	34,8
	ROVIGO	5,7	3,1	1,4	1,2	0,4	3,9	4,6	0,8	0,5	1,7	0,7	0,1	0,5	0,1	0,1	0,0	4,4	29,4
	TREVISO	3,7	5,0	3,2	0,8	0,5	2,8	2,4	1,4	1,4	0,0	0,7	0,4	0,9	0,2	0,1	0,0	4,7	33,2
	VENEZIA	11,6	14,5	4,5	2,2	1,4	4,3	5,2	1,4	2,2	0,6	1,7	1,1	1,1	0,4	3,4	0,2	9,5	65,4
	VERONA	7,2	2,6	2,5	0,6	0,3	1,8	0,7	1,4	0,6	0,8	1,0	0,3	0,5	0,2	0,2	0,1	2,3	23,0
VICENZA	3,1	5,0	3,0	0,4	0,5	1,6	0,9	1,1	0,8	0,0	0,5	0,5	0,6	0,2	0,1	0,0	2,0	25,4	
TOTAL:		11,5	5,1	2,8	2,5	1,5	1,5	1,3	1,3	1,2	0,9	0,9	0,7	0,6	0,3	0,1	0,0	2,9	35,2

Table 22 (3/3) – Number of interventions performed in 2017 at provincial level for each 10 square Km of provincial territory extension, split by type.

4.4.4 Percentage variation of intervention of Urgent Technical Rescue at provincial level from 2016 to 2017.

The following picture shows map of Percentage variation from 2016 to 2017 of the total amount of urgent technical rescue intervention.



Picture 57 –Percentage variation of number of interventions from 2016 to 2017.

The following table shows the percentage variation from 2016 to 2017 of the interventions performed for the most significant type of accidents, and for each province. Positive variations are reported in red (increase of accidents), negative ones in green color (reduction of accidents)

REGION	Provincial Fire Department	Fires and Explosions	Doors and Windows Openings	Rescue of person	Safety of buildings and Structures	Recoveries	Road accidents	Unstable Trees	Accidents solved by others/No more necessary	Water	Reclamation from Insects	Gas leak	Lift malfunction	Rescue of Animals	False Alarm	% variation by Provincial F. D.
ABRUZZO	CHIETI	71,1%	0,8%	77,8%	21,8%	68,4%	-1,4%	115,5%	34,4%	121,0%	13,3%	11,0%	16,0%	40,4%	37,0%	34,8%
	L'AQUILA	108,8%	-11,7%	31,3%	-21,7%	489,0%	-7,0%	42,3%	15,4%	28,5%	-42,1%	-6,2%	51,7%	-17,1%	40,8%	24,5%
	PESCARA	75,3%	-3,5%	36,7%	-5,8%	99,3%	3,5%	39,1%	29,7%	144,1%	1,8%	41,1%	-8,4%	-21,2%	-6,7%	24,5%
	TERAMO	64,5%	7,5%	137,4%	-47,2%	235,3%	-18,7%	101,5%	-11,0%	131,4%	-10,6%	35,3%	-4,1%	97,1%	-9,7%	-4,8%
BASILICATA	MATERA	86,4%	1,1%	60,3%	81,1%	28,0%	-22,0%	48,0%	46,4%	39,0%	-12,4%	14,5%	25,0%	-4,4%	-29,7%	45,2%
	POTENZA	154,7%	9,3%	38,2%	47,0%	-0,6%	-23,0%	24,2%	100,0%	28,6%	-6,5%	1,2%	9,5%	14,4%	-44,4%	57,1%
CALABRIA	CATANZARO	34,4%	-2,1%	15,3%	-4,7%	17,9%	-15,8%	26,2%	-10,7%	4,9%	-23,9%	0,0%	-18,8%	-16,7%	-42,9%	9,5%
	COSENZA	46,0%	-14,0%	-10,3%	-39,0%	-6,3%	-17,8%	-24,7%	21,2%	-20,6%	-40,4%	-2,0%	-8,1%	-30,0%	10,3%	9,8%
	CROTONE	26,0%	14,7%	18,0%	-7,8%	51,4%	-12,0%	49,6%	-5,7%	-20,6%	-6,1%	14,5%	46,3%	39,1%	-23,8%	16,3%
	REGGIO CALABRIA	46,9%	11,3%	45,8%	-32,5%	71,3%	23,7%	-10,1%	3,7%	-22,0%	-2,9%	-8,7%	1,8%	45,0%	1,6%	20,7%
	VIBO VALENTIA	65,7%	0,8%	50,7%	-27,6%	5,6%	-18,9%	-20,5%	-21,2%	-60,2%	-21,3%	0,0%	-18,2%	-6,2%	58,3%	16,6%
CAMPANIA	AVELLINO	158,9%	-3,7%	2,0%	28,6%	51,6%	-16,2%	28,0%	28,3%	51,1%	-30,3%	20,0%	-9,9%	-9,8%	55,0%	39,1%
	BENEVENTO	169,1%	17,2%	-2,4%	-18,3%	83,6%	-11,3%	37,0%	12,9%	2,3%	-31,3%	-11,8%	3,7%	-28,2%	0,0%	37,2%
	CASERTA	58,3%	7,0%	10,2%	-7,1%	6,0%	-2,6%	5,5%	9,1%	27,0%	-49,5%	8,4%	13,7%	-10,2%	1,4%	27,1%
	NAPOLI	27,8%	-2,7%	-5,5%	16,4%	2191,8%	-33,9%	-33,3%	-4,6%	-13,2%	-47,4%	-0,4%	-1,6%	64,7%	-13,2%	19,0%
	SALERNO	33,7%	0,2%	-12,4%	-3,3%	10,9%	-10,7%	21,1%	-15,2%	-9,5%	-52,2%	0,7%	0,9%	-27,8%	-28,7%	5,7%
EMILIA ROMAGNA	BOLOGNA	33,6%	9,4%	4,0%	33,6%	2,5%	-2,0%	221,9%	19,7%	11,4%	18,8%	-7,0%	11,1%	-1,0%	-0,7%	19,3%
	FERRARA	22,6%	5,8%	4,8%	39,2%	-14,9%	-11,0%	158,3%	18,4%	-15,0%	-25,7%	-11,0%	50,0%	3,6%	0,0%	16,5%
	FORLI'	41,4%	-12,4%	-3,2%	39,5%	2,4%	-15,5%	427,8%	-5,1%	0,0%	33,6%	-14,7%	11,7%	18,1%	0,0%	13,4%
	MODENA	33,4%	6,6%	-2,6%	2,2%	16,5%	-1,4%	25,9%	-14,5%	3,7%	11,0%	2,8%	0,0%	-0,8%	31,9%	8,9%
	PARMA	28,6%	26,8%	25,4%	50,4%	22,2%	22,8%	36,9%	33,7%	-11,1%	-29,6%	6,2%	43,1%	101,5%	84,9%	25,8%
	PIACENZA	44,1%	12,5%	-2,8%	5,6%	-26,1%	17,1%	174,4%	17,6%	45,6%	250,0%	26,9%	3,7%	32,7%	52,2%	26,5%
	RAVENNA	29,4%	-3,8%	2,7%	55,4%	-16,3%	-11,7%	166,0%	13,1%	-23,3%	-8,2%	4,4%	9,5%	-6,1%	42,1%	13,3%
	REGGIO EMILIA	21,4%	13,6%	13,0%	-25,3%	47,3%	0,6%	28,9%	-9,2%	-11,3%	6,2%	5,5%	22,7%	47,5%	-2,7%	12,7%
RIMINI	41,0%	-0,1%	6,3%	-47,4%	-1,2%	-5,8%	71,5%	6,1%	-61,3%	25,1%	-26,0%	-24,2%	12,3%	-1,9%	11,2%	

Table 23 (1/3) – Percentage variations from 2016 to 2017 of number of interventions at provincial level.

REGION	Provincial Fire Department	Fires and Explosions	Doors and Windows Openings	Rescue of person	Safety of buildings and Structures	Recoveries	Road accidents	Unstable Trees	Accidents solved by others/No more necessary	Water	Reclamation from Insects	Gas leak	Lift malfunction	Rescue of Animals	False Alarm	% variation by Provincial F. D.
FRIULI V G	GORIZIA	13,0%	-2,1%	19,3%	97,2%	17,7%	68,1%	111,1%	-12,8%	25,4%	5,5%	-19,0%	7,5%	5,3%	47,3%	16,1%
	PORDENONE	5,2%	8,5%	-12,0%	100,0%	34,0%	7,2%	57,9%	46,5%	43,5%	-36,7%	0,8%	15,6%	-5,6%	133,3%	14,0%
	TRIESTE	9,1%	2,0%	26,7%	101,9%	-6,4%	66,8%	235,8%	59,2%	31,9%	-2,1%	1,3%	9,0%	-8,7%	12,6%	35,4%
	UDINE	14,2%	10,6%	-3,1%	145,1%	-10,9%	3,1%	50,4%	11,8%	93,7%	-11,7%	10,4%	-18,2%	-7,0%	17,1%	22,3%
LAZIO	FROSINONE	88,7%	6,8%	19,1%	-16,8%	24,8%	-14,3%	13,0%	18,3%	2,7%	-74,1%	-1,4%	-8,8%	-17,0%	57,6%	16,6%
	LATINA	59,9%	-5,9%	2,5%	5,6%	72,9%	5,0%	-5,1%	-23,6%	20,1%	-46,5%	3,1%	8,6%	-21,5%	-27,5%	18,4%
	RIETI	96,5%	1,3%	-15,7%	-80,7%	120,7%	-7,4%	0,0%	28,0%	39,7%	-43,2%	-12,0%	-35,3%	-4,9%	-18,8%	-12,5%
	ROMA	28,5%	-4,6%	7,2%	-39,0%	-60,5%	-6,7%	-10,9%	6,9%	-8,9%	-33,9%	-0,2%	1,6%	-4,2%	-14,5%	0,9%
	VITERBO	73,6%	-1,3%	5,3%	-64,1%	6,3%	-22,8%	13,0%	27,1%	5,8%	-23,4%	13,3%	30,0%	-21,5%	43,2%	1,8%
LIGURIA	GENOVA	49,4%	8,7%	28,3%	-5,6%	22,4%	28,9%	-2,2%	-31,7%	19,8%	40,0%	15,7%	20,1%	17,8%	-0,4%	15,7%
	IMPERIA	59,7%	10,8%	41,1%	-13,1%	-34,4%	-11,6%	-15,1%	17,0%	-21,2%	-4,7%	6,1%	26,7%	-16,3%	2,8%	10,0%
	LA SPEZIA	72,8%	-0,1%	18,6%	-26,0%	4,2%	24,7%	36,9%	12,4%	-2,4%	-35,7%	-7,3%	-12,1%	6,4%	32,2%	13,7%
	SAVONA	68,8%	12,7%	23,5%	-4,7%	21,3%	13,3%	88,6%	0,7%	-12,9%	-5,9%	-12,2%	31,7%	27,5%	1,8%	17,2%
LOMBARDIA	BERGAMO	14,8%	-5,5%	-4,6%	-30,3%	-5,3%	-12,5%	-38,9%	7,5%	-48,7%	-0,7%	-15,2%	-36,1%	-2,5%	-4,0%	-7,5%
	BRESCIA	4,9%	0,1%	9,5%	-1,7%	20,8%	0,0%	70,9%	-28,6%	-23,8%	-25,7%	-6,8%	-5,4%	-1,9%	-51,3%	-2,5%
	COMO	31,6%	16,5%	3,9%	19,7%	18,3%	-3,0%	-10,2%	-15,2%	30,5%	13,0%	-18,8%	-14,2%	3,0%	-1,1%	4,8%
	CREMONA	13,0%	-19,6%	-3,8%	116,7%	21,1%	33,2%	92,9%	36,0%	38,0%	-64,5%	-16,8%	9,2%	-8,7%	-14,3%	14,7%
	LECCO	35,2%	18,3%	7,0%	41,0%	17,7%	-12,6%	43,0%	-14,9%	-24,6%	-39,4%	35,2%	-14,3%	11,3%	0,0%	10,3%
	LODI	17,5%	-14,6%	-7,2%	51,7%	-11,8%	11,2%	22,0%	2,1%	-31,2%	-99,4%	-14,5%	-17,8%	8,5%	-8,0%	-5,4%
	MANTOVA	16,0%	-2,1%	-17,2%	-26,2%	1,5%	-4,7%	-45,6%	1,7%	-47,9%	026,7%	-5,7%	1,9%	-22,5%	-22,6%	-0,5%
	MILANO	12,9%	3,6%	4,1%	1,1%	30,0%	-1,5%	-16,1%	-9,4%	-1,5%	-5,2%	-9,8%	2,8%	-18,1%	-1,0%	2,9%
	PAVIA	52,5%	-1,3%	-1,6%	17,7%	-4,0%	9,9%	24,0%	-31,6%	-29,7%	-40,5%	-16,2%	28,2%	8,7%	13,0%	16,1%
	SONDRIO	45,6%	-2,6%	5,3%	10,3%	25,0%	0,4%	72,2%	16,3%	23,0%	-76,5%	-28,0%	15,9%	0,0%	136,8%	18,4%
VARESE	36,3%	12,7%	9,0%	33,1%	53,3%	-4,7%	9,2%	-6,5%	31,7%	-12,8%	-6,8%	-24,8%	4,6%	4,2%	12,1%	
MARCHE	ANCONA	33,7%	5,5%	22,5%	-85,2%	7,6%	-4,2%	25,4%	-1,8%	-11,1%	-16,2%	-16,7%	10,5%	-13,6%	-27,6%	-26,4%
	ASCOLI PICENO	49,4%	11,2%	-0,4%	-52,9%	-43,5%	13,3%	121,7%	25,2%	23,0%	5,7%	7,7%	1,4%	22,8%	-9,8%	-30,2%
	MACERATA	40,4%	2,8%	-20,2%	-52,8%	-29,3%	-5,2%	113,4%	-18,1%	-6,9%	-12,5%	-31,4%	-21,6%	-32,2%	0,0%	-26,0%
	PESARO	33,1%	-0,2%	-14,5%	-85,6%	31,6%	-2,9%	51,6%	-9,0%	-32,1%	-9,4%	-9,5%	22,4%	17,1%	6,8%	-11,6%
MOLISE	CAMPOBASSO	112,3%	12,6%	18,2%	274,6%	204,6%	-25,8%	57,0%	33,3%	55,3%	15,8%	2,0%	11,0%	-3,2%	144,4%	50,9%
	ISERNIA	135,2%	12,0%	23,0%	73,5%	186,9%	-27,6%	67,0%	-8,3%	27,3%	22,2%	-6,7%	12,5%	-5,4%	33,3%	46,9%
PIEMONTE	ALESSANDRIA	21,0%	-1,7%	-7,5%	58,6%	41,8%	3,1%	97,3%	15,9%	-20,7%	-44,5%	1,6%	1,6%	36,6%	9,1%	7,1%
	ASTI	12,3%	0,8%	1,4%	-32,3%	-5,5%	16,5%	8,5%	42,6%	-25,8%	-36,3%	-10,0%	21,0%	1,1%	83,3%	2,7%
	BIELLA	29,4%	4,9%	0,7%	62,1%	-2,0%	-21,5%	-2,6%	27,0%	32,3%	35,5%	1,0%	37,0%	51,9%	80,0%	11,5%
	CUNEO	81,0%	2,0%	38,2%	1,2%	-1,7%	-5,8%	64,9%	-11,5%	-58,8%	-14,8%	24,9%	-11,7%	9,1%	23,0%	9,0%
	NOVARA	19,7%	6,2%	-16,3%	113,4%	28,4%	-4,7%	-33,0%	8,1%	1,7%	-12,3%	14,5%	6,0%	13,7%	-31,7%	-3,2%
	TORINO	34,0%	6,6%	9,8%	4,6%	5,6%	-1,8%	-13,2%	23,3%	-23,1%	-41,3%	-7,7%	-3,5%	4,9%	25,5%	12,0%
	VERBANO-C.-O.	30,1%	19,8%	13,8%	101,9%	45,0%	25,6%	-38,8%	18,8%	26,7%	1,3%	42,4%	37,0%	-0,8%	14,0%	9,6%
	VERCELLI	37,7%	6,1%	-4,8%	56,7%	-4,0%	5,0%	63,3%	5,7%	-14,4%	7,3%	-2,6%	54,7%	26,7%	41,8%	9,6%

Table 23 (2/3) –Percentage variations from 2016 to 2017 of number of interventions at provincial level.

REGION	Provincial Fire Department	Fires and Explosions	Doors and Windows Openings	Rescue of person	Safety of buildings and Structures	Recoveries	Road accidents	Unstable Trees	Accidents solved by others/No more necessary	Water	Reclamation from Insects	Gas leak	Lift malfunction	Rescue of Animals	False Alarm	% variation by Provincial F. D.
PUGLIA	BARI	49,1%	9,5%	8,0%	-3,6%	-5,6%	-7,6%	-15,5%	33,2%	-34,0%	-44,2%	8,2%	18,3%	7,5%	14,9%	23,1%
	BRINDISI	30,1%	9,8%	6,0%	25,5%	18,3%	3,8%	27,7%	5,2%	-31,6%	-23,6%	-4,2%	4,6%	2,3%	-48,5%	18,2%
	FOGGIA	45,4%	-1,5%	-6,9%	9,6%	39,8%	-2,3%	78,6%	13,4%	-30,5%	-13,2%	-4,5%	38,5%	24,8%	8,4%	22,1%
	LECCE	16,6%	14,2%	6,4%	50,0%	6,2%	1,7%	-7,0%	2,5%	15,9%	-36,0%	-4,3%	16,0%	13,3%	20,2%	14,0%
	TARANTO	22,8%	18,0%	24,7%	8,4%	95,6%	-12,8%	17,8%	41,5%	30,3%	0,0%	4,0%	7,5%	6,7%	-17,1%	18,6%
SARDEGNA	CAGLIARI	14,1%	10,0%	11,2%	12,8%	-20,0%	-11,1%	10,8%	-2,8%	-20,8%	-19,1%	-9,9%	-8,3%	-12,5%	0,0%	8,6%
	NUORO	8,2%	3,2%	30,4%	39,0%	74,4%	9,2%	96,3%	80,9%	-15,2%	-6,7%	5,5%	30,0%	-9,5%	-19,6%	17,5%
	ORISTANO	14,7%	-1,0%	-1,1%	48,3%	87,5%	-11,1%	24,1%	25,0%	-21,9%	-3,3%	-2,7%	-22,2%	11,9%	10,3%	8,6%
	SASSARI	9,5%	-4,7%	15,4%	6,4%	578,7%	18,1%	26,1%	-4,9%	-20,6%	-29,0%	8,8%	-3,7%	-25,3%	-8,9%	7,1%
SICILIA	AGRIGENTO	3,1%	5,2%	-10,8%	14,8%	30,5%	-20,1%	8,3%	-5,6%	-20,0%	261,5%	17,8%	25,9%	-13,1%	-14,3%	2,9%
	CALTANISSETTA	26,5%	8,7%	33,1%	7,2%	171,0%	23,8%	21,9%	-1,7%	7,6%	84,8%	2,1%	15,6%	-22,2%	-50,0%	20,0%
	CATANIA	17,2%	3,9%	6,8%	-5,8%	47,6%	-16,9%	-20,1%	-0,7%	-14,1%	30,8%	32,4%	8,6%	-25,3%	1,9%	7,1%
	ENNA	29,1%	11,5%	-4,2%	69,4%	62,6%	0,0%	33,8%	25,4%	-3,3%	-30,3%	38,7%	-38,6%	1,3%	18,2%	23,3%
	MESSINA	31,3%	7,8%	38,2%	-9,2%	33,8%	-19,3%	-1,3%	-7,3%	-17,8%	-16,3%	24,4%	9,9%	-36,4%	-12,2%	13,9%
	PALERMO	5,9%	-5,4%	18,0%	7,1%	4,4%	13,8%	25,6%	5,8%	32,8%	-41,4%	5,9%	-0,7%	4,9%	-10,1%	5,8%
	RAGUSA	14,2%	11,2%	47,5%	-3,5%	50,6%	-3,8%	37,5%	29,8%	106,0%	140,3%	43,8%	5,1%	-36,4%	-30,3%	15,9%
	SIRACUSA	16,5%	6,8%	19,8%	-0,2%	40,7%	-3,7%	-14,8%	-16,6%	-34,1%	100,0%	11,1%	30,5%	-35,1%	39,3%	6,5%
TRAPANI	-5,2%	-0,4%	27,6%	19,1%	49,5%	-12,0%	46,1%	-6,2%	90,0%	-11,2%	9,0%	23,4%	-17,3%	-12,9%	0,9%	
TOSCANA	AREZZO	40,3%	2,2%	11,4%	-33,1%	12,5%	-10,6%	2,5%	0,5%	-55,8%	-40,0%	-0,7%	10,3%	5,8%	0,0%	2,9%
	FIRENZE	30,6%	-1,2%	-3,1%	4,1%	7,8%	-7,5%	54,6%	15,9%	0,3%	-36,6%	15,3%	-8,3%	2,1%	54,3%	8,4%
	GROSSETO	44,5%	13,4%	-1,5%	11,9%	44,1%	4,4%	-15,8%	8,1%	-49,3%	-17,5%	-10,9%	-22,9%	-19,4%	18,3%	11,6%
	LIVORNO	17,8%	-0,4%	33,1%	70,5%	40,3%	19,1%	22,4%	-17,0%	9,6%	22,2%	-24,2%	5,9%	-14,3%	23,1%	10,5%
	LUCCA	18,7%	-0,8%	6,3%	-19,9%	37,3%	-6,8%	23,9%	0,3%	0,9%	18,3%	-4,9%	24,6%	2,0%	2,2%	3,8%
	MASSA	14,8%	4,2%	20,9%	17,3%	40,0%	7,1%	71,4%	27,2%	18,4%	0,0%	-16,0%	7,1%	-21,1%	21,7%	12,3%
	PISA	21,9%	1,4%	0,4%	-33,1%	66,3%	14,1%	54,5%	8,4%	16,0%	-5,2%	-15,8%	37,7%	-22,4%	17,3%	4,0%
	PISTOIA	36,7%	-0,9%	7,1%	9,1%	33,0%	-7,1%	72,6%	0,0%	-31,5%	-34,8%	8,2%	8,4%	17,3%	-20,0%	10,6%
	PRATO	9,9%	-3,7%	18,6%	40,2%	18,0%	-12,8%	14,5%	33,3%	-5,4%	-22,4%	-5,6%	-9,5%	-7,2%	36,4%	5,2%
	SIENA	61,9%	6,5%	10,5%	-29,2%	36,8%	-4,6%	10,3%	5,2%	-5,4%	-28,6%	-9,9%	-6,5%	12,7%	76,7%	9,1%
UMBRIA	PERUGIA	73,3%	14,6%	-11,7%	-56,6%	-36,6%	46,5%	68,9%	-14,2%	5,4%	-3,3%	-0,6%	18,7%	8,1%	42,9%	-18,8%
	TERNI	67,7%	8,7%	6,4%	-73,9%	-8,4%	12,9%	3,7%	20,8%	10,4%	-8,6%	-8,2%	23,2%	17,9%	6,6%	-8,2%
VENETO	BELLUNO	14,8%	14,3%	-17,9%	61,1%	61,6%	1,6%	144,3%	0,0%	6,9%	-46,2%	28,8%	-28,2%	33,3%	18,8%	9,2%
	PADOVA	-1,1%	-8,3%	-4,0%	-14,4%	-10,5%	-7,4%	54,8%	39,3%	-21,8%	-26,6%	-13,6%	-11,3%	-15,7%	0,0%	-4,9%
	ROVIGO	9,7%	4,2%	-12,6%	194,7%	55,6%	8,5%	704,8%	17,8%	-23,1%	23,4%	0,8%	118,2%	18,8%	-23,3%	37,6%
	TREVISO	13,7%	5,9%	17,6%	27,4%	5,6%	-0,6%	65,7%	16,7%	10,2%	-71,4%	-8,3%	12,7%	26,7%	19,6%	14,5%
	VENEZIA	9,6%	2,8%	-3,9%	30,3%	-9,1%	-1,5%	104,6%	16,3%	11,5%	65,9%	-10,9%	1,1%	16,8%	22,7%	10,9%
	VERONA	21,2%	-4,5%	3,6%	-3,8%	-9,6%	6,6%	45,3%	18,1%	-46,6%	-26,9%	13,0%	5,8%	-19,2%	44,1%	4,9%
TOTAL:	32,7%	2,6%	7,1%	-32,8%	-18,8%	-0,4%	33,7%	4,9%	-3,9%	-12,5%	-0,9%	4,3%	-3,3%	4,8%	5,0%	

Table 23 (3/3) – Percentage variations from 2016 to 2017 of number of interventions at provincial level.

4.5 Time distribution of rescue interventions.

In this paragraph an analysis of the time factors the features the interventions are reported (times to arrival on site, duration of the operations)

4.5.1 Average times of arrival on the accident scenarios and duration of operations

The following table gives the data of regional analysis concerning average times of arrival on the scene (arrival on site of call) and duration of operations. Duration is assumed as time from arrival on the scene by the rescue vehicle on site and time of departure.

Region	Average time of arrival on site (departure from fire station - arrival on site)				Duration of rescue event (from beginning to closing operations)			
	2017	Average	% var (**)	% var (***)	2017	Average	% var (**)	% var (***)
ABRUZZO	22,3	14,4	▶ 54,6%	▶ 32,2%	73,6	43,3	● 69,8%	● 66,2%
BASILICATA	24,1	20,1	▶ 20,2%	▶ 21,2%	73,9	58,2	● 27,0%	● 40,4%
CALABRIA	19,0	14,3	▶ 32,5%	▶ 24,6%	74,5	53,9	● 38,2%	● 38,1%
CAMPANIA	17,8	13,7	▶ 29,6%	▶ 7,4%	67,3	57,9	● 16,4%	● 15,8%
EMILIA ROM.	16,9	14,3	▶ 17,8%	▶ 9,0%	41,8	38,4	● 8,9%	● 8,2%
FRIULI V. G.	14,8	12,8	▶ 16,3%	▶ 6,9%	46,4	43,4	● 6,9%	● -4,6%
LAZIO	18,8	15,0	▶ 25,6%	▶ 16,6%	52,5	38,0	● 38,1%	● 28,0%
LIGURIA	15,1	11,8	▶ 28,2%	▶ 19,2%	47,7	43,0	● 11,0%	● 14,5%
LOMBARDIA	15,2	13,3	▶ 14,8%	▶ 5,3%	50,8	44,9	● 13,3%	● 7,7%
MARCHE	15,8	13,9	▶ 13,8%	▶ 20,4%	62,6	42,6	● 47,0%	● 38,4%
MOLISE	17,9	15,8	▶ 13,9%	▶ 16,9%	52,5	45,5	● 15,5%	● 13,1%
PIEMONTE	17,0	13,0	▶ 30,6%	▶ 18,9%	50,5	41,8	● 20,9%	● 20,6%
PUGLIA	17,8	14,5	▶ 22,5%	▶ 9,7%	48,4	42,5	● 13,8%	● 9,5%
SARDEGNA	16,8	13,4	▶ 24,8%	▶ 6,6%	39,5	38,1	● 3,6%	● 6,7%
SICILIA	15,5	12,5	▶ 24,1%	▶ 11,0%	58,2	51,5	● 12,9%	● 9,4%
TOSCANA	16,3	14,7	▶ 11,0%	▶ 4,3%	42,9	38,7	● 10,7%	● 8,0%
UMBRIA	15,7	14,0	▶ 12,1%	▶ 13,6%	53,4	43,5	● 22,5%	● 30,5%
VENETO	17,5	15,8	▶ 10,8%	▶ 4,4%	53,8	50,9	● 5,8%	● 1,7%
NATIONAL AVERAGE	17,0	13,9	▶ 22,3%	▶ 12,6%	54,2	45,1	● 20,1%	● 18,1%

(*) Average calculated over 5 years (from 2012 to 2016).

(**) % variation from 2017 to the average of the previous 5 years.

(***) % variation from 2017 to 2016.

Table 24 – Average time of arrival on scene and duration of operations

The following table shows the data of analysis conducted at provincial level concerning average times for arrival on the scene and duration of the operations.

Region	Provincial Fire Department	Average time of arrival on site (departure from fire station - arrival on site)				Duration of rescue event (from beginning to closing operations)			
		2017	Average(*)	% var (**)	% var (***)	2017	Average(*)	% var (**)	% var (***)
ABRUZZO	CHIETI	19,8	15,1	▶31,2%	▶31,4%	51,2	41,4	●23,7%	●40,8%
	L'AQUILA	19,6	13,6	▶44,1%	▶18,3%	87,2	45,0	●93,6%	●77,2%
	PESCARA	21,7	14,2	▶53,0%	▶40,6%	63,4	39,9	●58,9%	●57,0%
	TERAMO	27,8	14,6	▶90,7%	▶35,0%	89,0	46,9	●89,8%	●85,5%
BASILICATA	MATERA	17,8	14,9	▶19,4%	▶23,0%	65,4	58,1	●12,6%	●35,2%
	POTENZA	30,2	25,5	▶18,2%	▶19,1%	81,4	57,8	●40,7%	●43,6%
CALABRIA	CATANZARO	18,3	13,9	▶32,2%	▶20,4%	60,0	45,7	●31,3%	●28,0%
	COSENZA	23,3	16,3	▶43,5%	▶35,1%	105,6	75,2	●40,5%	●49,4%
	CROTONE	13,3	11,4	▶16,4%	▶13,7%	46,1	39,7	●16,3%	●17,3%
	REGGIO CALABRIA	18,3	13,8	▶32,2%	▶23,9%	74,0	48,4	●52,9%	●41,6%
	VIBO VALENTIA	20,8	15,9	▶31,1%	▶25,0%	75,9	52,1	●45,5%	●37,5%
CAMPANIA	AVELLINO	19,2	13,7	▶40,1%	▶18,0%	57,1	47,0	●21,5%	●35,3%
	BENEVENTO	18,1	12,8	▶42,1%	▶12,4%	57,6	56,0	●2,8%	●16,6%
	CASERTA	21,2	15,5	▶36,9%	▶8,3%	66,7	54,6	●22,2%	●26,8%
	NAPOLI	14,5	11,7	▶24,3%	▶2,3%	70,7	63,8	●10,8%	●6,3%
	SALERNO	22,0	17,5	▶25,6%	▶9,5%	70,0	52,0	●34,6%	●31,4%
EMILIA R.	BOLOGNA	18,1	14,5	▶24,8%	▶11,2%	42,9	36,3	●18,0%	●12,1%
	FERRARA	14,4	13,9	▶3,4%	▶9,2%	37,2	42,9	●-13,3%	●1,8%
	FORLI'	16,8	15,0	▶11,6%	▶14,0%	41,8	36,6	●14,3%	●18,0%
	MODENA	17,3	15,1	▶14,7%	▶3,8%	43,2	39,0	●10,8%	●1,8%
	PARMA	16,8	15,7	▶6,9%	▶0,6%	46,7	48,9	●-4,6%	●-7,1%
	PIACENZA	16,4	12,7	▶28,9%	▶20,2%	52,2	44,5	●17,3%	●21,3%
	RAVENNA	15,5	12,8	▶21,6%	▶10,1%	36,4	35,1	●3,8%	●12,3%
	REGGIO EMILIA	18,1	14,1	▶28,2%	▶6,6%	41,2	37,8	●8,8%	●7,6%
FRIULI V. G.	RIMINI	15,2	13,8	▶10,7%	▶7,0%	36,6	32,9	●11,3%	●5,3%
	GORIZIA	11,7	10,6	▶10,9%	▶-1,0%	42,4	38,9	●9,0%	●-0,4%
	PORDENONE	15,4	12,5	▶22,8%	▶8,2%	50,9	39,5	●28,7%	●-1,9%
	TRIESTE	11,1	9,3	▶19,5%	▶4,1%	36,7	36,2	●1,6%	●-3,5%
LAZIO	UDINE	18,5	15,9	▶16,4%	▶10,1%	52,7	51,7	●1,9%	●-6,5%
	FROSINONE	20,6	16,2	▶26,7%	▶17,1%	69,1	42,6	●62,3%	●44,0%
	LATINA	20,0	15,5	▶29,3%	▶20,9%	55,8	36,2	●54,3%	●45,8%
	RIETI	21,6	17,3	▶25,0%	▶17,3%	82,5	56,1	●47,2%	●69,8%
	ROMA	18,4	14,6	▶25,8%	▶7,4%	41,8	34,8	●20,0%	●8,7%
LIGURIA	VITERBO	17,7	16,3	▶9,2%	▶-1,1%	50,6	46,9	●8,0%	●7,6%
	GENOVA	15,0	13,0	▶15,8%	▶14,7%	42,5	38,8	●9,5%	●9,7%
	IMPERIA	11,5	8,2	▶40,6%	▶27,5%	53,8	46,2	●16,4%	●19,0%
	LA SPEZIA	15,6	12,7	▶23,1%	▶14,6%	49,3	36,3	●35,8%	●36,7%
LOMBARDIA	SAVONA	17,6	11,0	▶59,4%	▶26,3%	53,4	55,7	●-4,2%	●6,7%
	BERGAMO	14,9	14,7	▶1,4%	▶-6,1%	49,7	51,6	●-3,7%	●-7,2%
	BRESCIA	18,0	15,8	▶13,9%	▶6,0%	54,6	49,9	●9,2%	●7,6%
	COMO	15,6	14,4	▶8,0%	▶2,7%	53,5	50,4	●6,2%	●5,8%
	CREMONA	11,7	10,4	▶12,3%	▶3,9%	50,1	44,5	●12,5%	●-1,3%
	LECCO	15,5	13,1	▶18,3%	▶9,2%	58,6	53,6	●9,4%	●10,9%
	LODI	11,6	11,0	▶5,0%	▶-0,3%	53,9	48,0	●12,1%	●23,8%
	MANTOVA	13,9	11,2	▶23,8%	▶-2,3%	39,9	36,5	●9,2%	●-9,0%
	MILANO	15,4	13,2	▶16,3%	▶6,5%	45,0	39,8	●13,0%	●5,6%
	PAVIA	17,1	13,5	▶26,6%	▶21,1%	65,8	50,6	●30,1%	●25,3%
	SONDRIO	14,8	13,2	▶11,7%	▶3,3%	69,1	58,2	●18,9%	●15,0%
VARESE	13,3	12,1	▶10,1%	▶11,4%	55,2	48,1	●14,9%	●19,4%	

(*) Average calculated over 5 years (from 2012 to 2016).

(**) % variation from 2017 to the average of the previous 5 years.

(***) % variation from 2017 to 2016.

Table 25 (1/2) – Average times for arrival on site and duration of operations (minutes).

Region	Provincial Fire Department	Average time of arrival on site (departure from fire station - arrival on site)				Duration of rescue event (from beginning to closing operations)			
		2017	Average(*)	% var (**)	% var (***)	2017	Average(*)	% var (**)	% var (***)
MARCHE	ANCONA	14,4	13,1	▲ 9,4%	▲ 0,8%	40,5	42,5	● -4,6%	● -2,0%
	ASCOLI PICENO	19,7	15,2	▲ 29,4%	▲ 45,2%	79,8	41,2	● 93,9%	● 64,9%
	MACERATA	14,2	15,2	▼ -6,8%	▲ 9,0%	63,8	42,7	● 49,4%	● 51,4%
	PESARO	14,5	12,9	▲ 11,9%	▲ 2,3%	42,4	42,0	● 0,9%	● 4,1%
MOLISE	CAMPOBASSO	19,0	15,8	▲ 20,6%	▲ 24,9%	48,0	46,9	● 2,4%	● -3,9%
	ISERNIA	16,6	15,7	▲ 5,7%	▲ 7,2%	58,4	43,7	● 33,7%	● 39,0%
PIEMONTE	ALESSANDRIA	13,3	9,8	▲ 35,5%	▲ 15,8%	36,1	33,8	● 6,8%	● 7,6%
	ASTI	13,8	12,8	▲ 7,6%	▲ 2,2%	40,7	36,1	● 12,7%	● 10,9%
	BIELLA	14,9	12,8	▲ 16,3%	▲ 18,0%	55,9	49,8	● 12,2%	● 15,1%
	CUNEO	17,1	11,9	▲ 43,4%	▲ 32,3%	58,8	46,5	● 26,6%	● 32,4%
	NOVARA	16,1	14,6	▲ 10,5%	▲ 3,0%	42,1	41,7	● 1,0%	● 1,9%
	TORINO	19,3	14,1	▲ 36,9%	▲ 21,1%	55,0	40,0	● 37,6%	● 29,0%
	VERBANO-C. O.	15,5	12,6	▲ 23,1%	▲ 13,0%	46,5	54,2	● -14,2%	● 4,3%
	VERCELLI	13,8	13,0	▲ 6,3%	▲ 11,9%	40,6	47,9	● -15,3%	● -9,4%
PUGLIA	BARI	17,7	14,2	▲ 25,1%	▲ 7,7%	42,6	37,2	● 14,5%	● 5,6%
	BRINDISI	14,8	13,0	▲ 14,1%	▲ 8,4%	40,7	37,3	● 9,2%	● 9,3%
	FOGGIA	18,0	12,6	▲ 42,7%	▲ 22,1%	54,2	46,6	● 16,3%	● 15,2%
	LECCE	18,5	15,6	▲ 19,0%	▲ 6,1%	54,1	45,8	● 18,1%	● 12,0%
	TARANTO	19,2	17,0	▲ 12,6%	▲ 6,8%	50,7	46,8	● 8,3%	● 6,7%
SARDEGNA	CAGLIARI	17,8	14,3	▲ 23,9%	▲ 5,0%	41,0	38,9	● 5,4%	● 11,3%
	NUORO	20,1	13,8	▲ 45,6%	▲ 11,4%	43,4	43,1	● 0,7%	● 10,4%
	ORISTANO	16,2	13,0	▲ 23,9%	▲ 4,4%	40,5	42,1	● -3,8%	● -3,7%
	SASSARI	14,0	12,5	▲ 12,0%	▲ 4,3%	35,6	33,6	● 6,0%	● 3,3%
SICILIA	AGRIGENTO	12,1	9,6	▲ 26,2%	▲ 5,4%	60,6	56,8	● 6,6%	● -7,6%
	CALTANISSETTA	12,1	8,3	▲ 46,0%	▲ 16,6%	54,6	54,2	● 0,8%	● 6,1%
	CATANIA	13,8	10,3	▲ 33,0%	▲ 15,3%	63,4	57,0	● 11,3%	● 5,8%
	ENNA	22,6	15,9	▲ 41,6%	▲ 8,6%	62,1	62,7	● -1,0%	● 4,0%
	MESSINA	16,7	11,4	▲ 47,0%	▲ 19,7%	74,4	50,5	● 47,1%	● 48,7%
	PALERMO	17,9	16,1	▲ 10,8%	▲ 3,8%	52,4	47,4	● 10,6%	● 6,2%
	RAGUSA	12,9	11,2	▲ 15,5%	▲ 14,3%	48,4	51,8	● -6,5%	● 0,3%
	SIRACUSA	15,1	13,4	▲ 12,8%	▲ 11,7%	56,4	48,2	● 17,0%	● 8,2%
	TRAPANI	16,2	13,4	▲ 21,3%	▲ 10,3%	51,0	44,6	● 14,4%	● 10,0%
TOSCANA	AREZZO	16,0	13,3	▲ 20,3%	▼ -0,1%	38,8	34,7	● 11,6%	● 1,1%
	FIRENZE	18,1	17,0	▲ 6,6%	▲ 1,0%	36,2	35,9	● 0,8%	● -6,9%
	GROSSETO	16,8	15,9	▲ 5,8%	▲ 12,3%	48,5	44,6	● 8,8%	● 14,7%
	LIVORNO	15,7	14,0	▲ 12,2%	▲ 7,8%	39,1	34,8	● 12,2%	● 6,8%
	LUCCA	13,9	13,1	▲ 5,9%	▲ 5,8%	50,7	40,3	● 25,9%	● 23,1%
	MASSA	15,1	12,6	▲ 19,6%	▲ 10,1%	43,0	39,9	● 7,8%	● -0,3%
	PISA	15,3	12,7	▲ 20,2%	▲ 8,7%	41,3	37,8	● 9,3%	● 15,3%
	PISTOIA	15,4	14,2	▲ 8,3%	▼ -1,1%	51,0	40,2	● 26,9%	● 22,3%
	PRATO	17,7	16,7	▲ 6,0%	▼ -3,7%	51,2	46,3	● 10,6%	● 8,1%
	SIENA	17,3	15,3	▲ 13,6%	▲ 5,9%	42,5	38,2	● 11,5%	● 13,9%
UMBRIA	PERUGIA	15,7	14,7	▲ 6,8%	▲ 16,9%	53,3	40,2	● 32,7%	● 31,9%
	TERNI	16,1	12,9	▲ 25,1%	▲ 2,0%	53,8	52,0	● 3,5%	● 25,6%
VENETO	BELLUNO	16,9	15,5	▲ 8,8%	▲ 2,6%	69,1	68,9	● 0,2%	● 0,8%
	PADOVA	16,5	15,4	▲ 7,5%	▲ 0,9%	47,7	49,4	● -3,5%	● -3,3%
	ROVIGO	17,7	15,8	▲ 12,2%	▲ 5,4%	52,1	53,8	● -3,3%	● 17,5%
	TREVISO	17,9	15,6	▲ 14,6%	▲ 13,7%	67,4	55,6	● 21,3%	● 13,6%
	VENEZIA	17,0	15,7	▲ 8,1%	▲ 1,4%	45,5	43,3	● 5,1%	● -1,4%
	VERONA	20,6	17,3	▲ 18,7%	▲ 9,8%	55,2	51,5	● 7,3%	● -6,6%
	VICENZA	17,0	15,7	▲ 8,2%	▼ -0,1%	48,5	43,4	● 11,6%	● -1,0%
NATIONAL AVERAGE		17,0	13,9	▲ 22,3%	▲ 12,6%	54,2	45,1	● 20,1%	● 18,1%

(*) Average calculated over 5 years (from 2012 to 2016).

(**) % variation from 2017 to the average of the previous 5 years.

(***) % variation from 2017 to 2016.

Table 25 (2/2) – Average times for arrival on site and duration of operations (minutes).

4.5.2 Average duration by type of rescue event at regional level.

The following two tables offer a view, related to 2017, at regional level of the average duration for the most significant type of rescue event. The histograms reported in cell, for each row, are proportional to the values, in order to better the perception of the data.

REGION	Water	Unstable Trees	Doors and Windows Openings	Lift malfunction	Reclamation from Insects	Gas leak	Fires and Explosions	Road accidents	Harbours	Recoveries	Rescue of Animals	Rescue of person	Safety of buildings and Structures
ABRUZZO	65,6	53,8	19,2	18,2	33,9	44,2	87,5	61,6	180,1	78,7	60,8	91,4	125,0
BASILICATA	53,6	59,8	23,5	21,7	43,4	52,4	95,5	82,5	152,5	42,8	54,0	137,1	56,2
CALABRIA	71,4	55,6	26,3	22,1	43,5	48,0	89,5	63,3	146,5	58,5	50,6	137,0	63,8
CAMPANIA	71,4	59,5	32,7	27,6	40,6	53,2	85,5	71,8	143,9	38,1	44,6	69,3	83,2
EMILIA ROMAGNA	47,6	45,2	17,3	19,2	30,6	46,3	64,8	43,2	149,9	43,9	35,7	42,5	50,5
FRIULI VENEZIA GIULIA	39,0	46,9	18,9	19,9	29,0	53,0	66,8	49,7	60,6	45,5	37,6	70,5	49,0
LAZIO	41,2	43,9	18,8	14,7	32,2	40,1	67,8	53,1	193,7	65,8	37,5	37,5	77,3
LIGURIA	45,1	47,0	21,3	17,4	36,3	47,4	93,2	49,1	92,6	53,5	37,4	42,0	55,3
LOMBARDIA	45,6	39,2	25,7	18,9	31,2	54,2	66,5	49,3	134,2	50,1	37,1	53,0	53,2
MARCHE	48,2	46,5	17,4	20,1	32,0	42,2	65,1	52,0	113,7	43,3	54,3	67,0	136,1
MOLISE	54,8	53,6	20,6	21,8	34,8	34,6	80,0	68,8	109,1	35,7	33,5	46,5	42,8
PIEMONTE	41,4	39,7	19,5	16,9	32,4	44,1	86,9	46,0	80,9	48,9	41,7	50,5	50,0
PUGLIA	56,4	50,9	24,6	21,2	34,7	41,9	53,0	62,9	119,0	62,2	35,7	50,7	53,6
SARDEGNA	39,2	36,9	17,2	14,0	32,3	27,7	45,5	49,0	144,9	31,7	33,7	74,3	45,7
SICILIA	66,0	57,5	27,9	23,5	46,2	47,6	67,0	72,3	164,2	53,6	53,8	58,9	69,0
TOSCANA	56,5	36,6	16,2	18,3	32,5	42,7	63,0	51,0	124,9	50,1	30,9	55,8	47,4
UMBRIA	52,5	49,4	18,6	20,1	34,4	40,3	70,4	53,9	247,0	31,2	34,9	70,0	165,5
VENETO	70,5	47,4	18,8	20,5	38,4	56,9	70,6	54,0	60,4	60,0	35,8	84,7	60,4
National average duration by type (minutes):	52,6	46,5	21,2	19,0	34,3	46,6	71,2	52,6	105,1	46,7	40,3	57,9	84,6

Table 26 – Average duration of interventions at regional level by type of rescue event.

The following table offers a view, related to 2017, at regional level of their average duration for the most significant types of rescue event. The histograms reported in cells, for each column, are proportional to the values, in order to better the perception of the data.

REGION	Water	Unstable Trees	Doors and Windows Openings	Lift malfunction	Reclamation from Insects	Gas leak	Fires and Explosions	Road accidents	Harbours	Recoveries	Rescue of Animals	Rescue of person	Safety of buildings and Structures
ABRUZZO	65,6	53,8	19,2	18,2	33,9	44,2	87,5	61,6	180,1	78,7	60,8	91,4	125,0
BASILICATA	53,6	59,8	23,5	21,7	43,4	52,4	95,5	82,5	152,5	42,8	54,0	137,1	56,2
CALABRIA	71,4	55,6	26,3	22,1	43,5	48,0	89,5	63,3	146,5	58,5	50,6	137,0	63,8
CAMPANIA	71,4	59,5	32,7	27,6	40,6	53,2	85,5	71,8	143,9	38,1	44,6	69,3	83,2
EMILIA ROMAGNA	47,6	45,2	17,3	19,2	30,6	46,3	64,8	43,2	149,9	43,9	35,7	42,5	50,5
FRIULI VENEZIA GIULIA	39,0	46,9	18,9	19,9	29,0	53,0	66,8	49,7	60,6	45,5	37,6	70,5	49,0
LAZIO	41,2	43,9	18,8	14,7	32,2	40,1	67,8	53,1	193,7	65,8	37,5	37,5	77,3
LIGURIA	45,1	47,0	21,3	17,4	36,3	47,4	93,2	49,1	92,6	53,5	37,4	42,0	55,3
LOMBARDIA	45,6	39,2	25,7	18,9	31,2	54,2	66,5	49,3	134,2	50,1	37,1	53,0	53,2
MARCHE	48,2	46,5	17,4	20,1	32,0	42,2	65,1	52,0	113,7	43,3	54,3	67,0	136,1
MOLISE	54,8	53,6	20,6	21,8	34,8	34,6	80,0	68,8	109,1	35,7	33,5	46,5	42,8
PIEMONTE	41,4	39,7	19,5	16,9	32,4	44,1	86,9	46,0	80,9	48,9	41,7	50,5	50,0
PUGLIA	56,4	50,9	24,6	21,2	34,7	41,9	53,0	62,9	119,0	62,2	35,7	50,7	53,6
SARDEGNA	39,2	36,9	17,2	14,0	32,3	27,7	45,5	49,0	144,9	31,7	33,7	74,3	45,7
SICILIA	66,0	57,5	27,9	23,5	46,2	47,6	67,0	72,3	164,2	53,6	53,8	58,9	69,0
TOSCANA	56,5	36,6	16,2	18,3	32,5	42,7	63,0	51,0	124,9	50,1	30,9	55,8	47,4
UMBRIA	52,5	49,4	18,6	20,1	34,4	40,3	70,4	53,9	247,0	31,2	34,9	70,0	165,5
VENETO	70,5	47,4	18,8	20,5	38,4	56,9	70,6	54,0	60,4	60,0	35,8	84,7	60,4
National average duration by type (minutes):	52,6	46,5	21,2	19,0	34,3	46,6	71,2	52,6	105,1	46,7	40,3	57,9	84,6

Table 27 – Average duration of interventions at regional level by type of rescue event.

4.5.3 Global duration by type of rescue event at regional level.

In the two following tables, the data from the analysis conducted at regional level concerning the whole duration of interventions, expressed in hours, for the most relevant types of accidents. The histograms reported in each cell offer, for each row, a more immediate perception of the numerical values of the duration data. It is to be noticed as the type “Fires and Explosion“ is most challenging in terms of time spent for operations.

REGION	Water	Aircraft	Unstable Trees	Doors and Windows Openings	Lift malfunction	Reclamation from Insects	False Alarm	Gas leak	Fires and Explosions	Road accidents	Accidents solved by others/No more necessary	Harbours	Recoveries	Rescue of Animals	Rescue of person	Safety of buildings and Structures	Others	Total hours used by region:
ABRUZZO	1.663	25	1.724	1.545	191	572	62	587	11.481	1.024	267	444	4.216	385	2.487	14.110	2.665	43.451
BASILICATA	406	0	751	402	40	479	22	144	10.639	429	73	15	262	170	942	544	721	16.040
CALABRIA	1.480	15	1.090	2.456	253	550	60	494	35.607	1.101	226	142	866	337	4.079	2.364	3.304	54.423
CAMPANIA	4.417	30	2.007	6.800	582	1.354	149	1.997	51.507	1.268	1.078	117	3.242	1.014	3.300	10.831	7.960	97.654
EMILIA ROMAGNA	1.529	26	3.497	4.790	396	1.975	230	1.457	20.461	3.072	419	272	685	640	3.600	1.444	5.326	49.818
FRIULI VENEZIA GIULIA	1.249	28	1.593	1.496	149	385	80	606	5.466	2.225	157	166	345	357	3.246	1.992	3.960	23.500
LAZIO	2.564	142	3.239	3.278	907	613	196	2.510	44.060	2.491	962	394	1.752	594	5.461	11.208	8.376	88.746
LIGURIA	986	14	749	2.904	295	439	216	1.026	10.265	1.038	257	213	322	471	3.741	1.295	3.670	27.902
LOMBARDIA	5.096	103	2.081	3.785	917	1.309	284	3.216	32.156	6.403	566	655	1.670	1.323	15.430	3.292	7.743	86.030
MARCHE	591	5	1.393	1.717	141	901	48	473	6.044	1.781	179	104	11.577	407	2.045	25.641	5.934	58.981
MOLISE	349	0	529	358	57	425	8	83	4.171	391	23	24	380	63	610	566	495	8.533
PIEMONTE	1.714	84	971	4.738	475	2.091	263	1.716	30.733	2.947	410	39	729	1.088	7.553	1.829	4.801	62.183
PUGLIA	1.250	12	1.074	2.352	396	170	121	902	30.457	1.787	556	244	684	852	2.493	2.819	2.558	48.727
SARDEGNA	832	54	829	1.500	168	395	53	301	7.707	1.655	110	379	391	278	2.276	1.720	2.862	21.508
SICILIA	2.272	65	1.604	4.924	779	1.017	177	1.721	48.453	1.664	919	405	1.367	1.241	5.117	6.760	7.053	85.539
TOSCANA	1.787	30	1.921	3.985	405	992	197	1.453	17.394	2.180	298	221	1.271	594	4.957	3.693	4.185	45.562
UMBRIA	513	1	1.087	1.580	97	1.049	75	286	5.469	994	198	12	2.750	210	1.034	7.546	2.419	25.320
VENETO	2.202	58	2.842	3.044	257	532	136	1.397	16.157	4.478	372	992	1.500	788	7.729	1.818	6.717	51.018
Hours used by C.N.VV.F by type of rescue event:	30.901	693	28.981	51.655	6.504	15.248	2.376	20.369	388.226	36.929	7.071	4.839	34.009	10.810	76.101	99.472	80.749	894.935

Table 28 – Global duration of intervention time at regional level for the year 2017.

The histograms reported in each cell offer, for each column, a more immediate perception of the numerical values of the duration data.

REGION	Water	Aircraft	Unstable Trees	Doors and Windows Openings	Lift malfunction	Reclamation from Insects	False Alarm	Gas leak	Fires and Explosions	Road accidents	Accidents solved by others/No more necessary	Harbours	Recoveries	Rescue of Animals	Rescue of person	Safety of buildings and Structures	Others	Total hours used by region:
ABRUZZO	1.663	25	1.724	1.545	191	572	62	587	11.481	1.024	267	444	4.216	385	2.487	14.110	2.665	43.451
BASILICATA	406	0	751	402	40	479	22	144	10.639	429	73	15	262	170	942	544	721	16.040
CALABRIA	1.480	15	1.090	2.456	253	550	60	494	35.607	1.101	226	142	866	337	4.079	2.364	3.304	54.423
CAMPANIA	4.417	30	2.007	6.800	582	1.354	149	1.997	51.507	1.268	1.078	117	3.242	1.014	3.300	10.831	7.960	97.654
EMILIA ROMAGNA	1.529	26	3.497	4.790	396	1.975	230	1.457	20.461	3.072	419	272	685	640	3.600	1.444	5.326	49.818
FRIULI VENEZIA GIULIA	1.249	28	1.593	1.496	149	385	80	606	5.466	2.225	157	166	345	357	3.246	1.992	3.960	23.500
LAZIO	2.564	142	3.239	3.278	907	613	196	2.510	44.060	2.491	962	394	1.752	594	5.461	11.208	8.376	88.746
LIGURIA	986	14	749	2.904	295	439	216	1.026	10.265	1.038	257	213	322	471	3.741	1.295	3.670	27.902
LOMBARDIA	5.096	103	2.081	3.785	917	1.309	284	3.216	32.156	6.403	566	655	1.670	1.323	15.430	3.292	7.743	86.030
MARCHE	591	5	1.393	1.717	141	901	48	473	6.044	1.781	179	104	11.577	407	2.045	25.641	5.934	58.981
MOLISE	349	0	529	358	57	425	8	83	4.171	391	23	24	380	63	610	566	495	8.533
PIEMONTE	1.714	84	971	4.738	475	2.091	263	1.716	30.733	2.947	410	39	729	1.088	7.553	1.829	4.801	62.183
PUGLIA	1.250	12	1.074	2.352	396	170	121	902	30.457	1.787	556	244	684	852	2.493	2.819	2.558	48.727
SARDEGNA	832	54	829	1.500	168	395	53	301	7.707	1.655	110	379	391	278	2.276	1.720	2.862	21.508
SICILIA	2.272	65	1.604	4.924	779	1.017	177	1.721	48.453	1.664	919	405	1.367	1.241	5.117	6.760	7.053	85.539
TOSCANA	1.787	30	1.921	3.985	405	992	197	1.453	17.394	2.180	298	221	1.271	594	4.957	3.693	4.185	45.562
UMBRIA	513	1	1.087	1.580	97	1.049	75	286	5.469	994	198	12	2.750	210	1.034	7.546	2.419	25.320
VENETO	2.202	58	2.842	3.044	257	532	136	1.397	16.157	4.478	372	992	1.500	788	7.729	1.818	6.717	51.018
Hours used by C.N.VV.F by type of rescue event:	30.901	693	28.981	51.655	6.504	15.248	2.376	20.369	388.226	36.929	7.071	4.839	34.009	10.810	76.101	99.472	80.749	894.935

Table 29 – Global duration in hours by type of intervention at regional level – year 2017

The following table offer the synthesis at national level concerning the Percentage distribution of the total duration of operations, as index of the involvement of human resources, to be compared with the Percentage distribution of interventions, shown in the second column. In other terms the first column gives an estimate of the number of hours spent by the firefighters by number of interventions as function of type of accident.

The third column report the difference, in Percentage values, between the numerical distribution of the global duration of the interventions and the numerical distribution of the same interventions. The histogram in red represents the most challenging type of intervention in term of duration, compared to its numerical Percentage.

RESCUE EVENTS	Total duration of rescue event: % value	Total No. of rescue event: % distribution.	Difference between the % distribution of total duration of rescue events and the same % value compared to the total number of rescue events.	
Water	3,45%	3,52%	-0,06%	
Aircraft	0,08%	0,07%		0,01%
Unstable Trees	3,24%	3,73%	-0,50%	
Doors and Windows Openings	5,77%	14,54%	-8,77%	
Lift malfunction	0,73%	2,05%	-1,32%	
Reclamation from Insects	1,70%	2,66%	-0,96%	
False Alarm	0,27%	0,83%	-0,57%	
Gas leak	2,28%	2,62%	-0,35%	
Fires and Explosions	43,38%	32,59%		10,79%
Road accidents	4,13%	4,22%	-0,10%	
Accidents solved by others/No	0,79%	3,59%	-2,79%	
Harbours	0,54%	0,27%		0,27%
Recoveries	3,80%	4,38%	-0,58%	
Rescue of Animals	1,21%	1,61%	-0,40%	
Rescue of person	8,50%	7,94%		0,57%
Safety of buildings and Structures	11,12%	7,02%		4,10%
Others	9,02%	8,37%		0,65%

Table 30 –Distribution in Percentage of the total duration of intervention and their numerical values – year 2017.

4.5.4 Time distribution of intervention of Urgent Technical Rescue

The following table shows the distribution in Percentage in the different days of the week, at regional level. For each row cells is complete with an histogram proportional to the same value.

REGION	DAY OF THE WEEK						
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
ABRUZZO	14,8%	14,1%	14,4%	13,8%	14,5%	14,3%	14,2%
BASILICATA	14,3%	14,2%	13,0%	13,6%	15,4%	15,5%	14,0%
CALABRIA	14,6%	13,9%	13,8%	13,7%	14,4%	14,9%	14,8%
CAMPANIA	14,3%	14,3%	14,1%	14,3%	14,3%	14,4%	14,3%
EMILIA ROMAGNA	14,8%	14,3%	13,7%	13,8%	14,4%	14,5%	14,6%
FRIULI VENEZIA GIULIA	15,7%	13,6%	13,9%	14,1%	14,6%	13,7%	14,5%
LAZIO	14,5%	14,4%	14,2%	14,0%	14,4%	14,3%	14,4%
LIGURIA	14,7%	14,1%	13,7%	13,8%	13,6%	14,9%	15,1%
LOMBARDIA	14,2%	13,8%	13,8%	13,4%	14,2%	14,9%	15,7%
MARCHE	14,2%	14,0%	14,7%	14,4%	15,1%	15,2%	12,4%
MOLISE	14,5%	13,0%	14,8%	14,4%	16,1%	14,8%	12,5%
PIEMONTE	14,3%	14,6%	14,3%	14,0%	13,6%	14,4%	14,9%
PUGLIA	13,8%	13,8%	14,1%	14,3%	14,2%	14,6%	15,1%
SARDEGNA	14,5%	14,9%	14,0%	14,8%	13,6%	14,1%	14,0%
SICILIA	14,6%	13,9%	13,9%	14,3%	14,0%	14,8%	14,7%
TOSCANA	14,3%	14,1%	13,5%	13,9%	14,5%	14,8%	14,8%
UMBRIA	14,6%	14,5%	14,4%	14,1%	14,8%	14,9%	12,6%
VENETO	14,9%	12,9%	13,5%	13,7%	14,0%	14,7%	16,4%
NATIONAL TOTAL	14,5%	14,1%	14,0%	14,0%	14,3%	14,6%	14,6%

Table 31 – Distribution per cent, of the interventions by day a week – year 2017

The following table offers the percentage distribution of the daily rates of intervention split by type of rescue event. Here also for each row the histograms in cells are proportional to the data held within.

RESCUE EVENT	DAY OF THE WEEK						
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Water	16,3%	13,4%	12,9%	12,2%	13,1%	14,1%	18,0%
Aircraft	13,5%	18,8%	12,8%	8,8%	14,9%	14,9%	16,3%
Unstable Trees	17,9%	15,7%	13,7%	12,6%	14,5%	12,6%	13,0%
Doors and Windows Openings	13,5%	13,0%	13,1%	13,3%	13,9%	16,0%	17,1%
Lift malfunction	13,7%	13,6%	13,7%	13,5%	14,5%	16,2%	14,7%
Clean up of insects	15,9%	14,9%	16,1%	15,3%	15,6%	13,2%	9,0%
False Alarm	14,3%	13,9%	13,9%	13,9%	14,4%	15,7%	13,9%
Gas leak	14,9%	14,3%	15,2%	15,3%	14,7%	13,3%	12,3%
Fires and Explosions	13,8%	14,0%	13,9%	14,0%	14,1%	14,7%	15,4%
Road accidents	14,3%	13,4%	13,6%	13,8%	14,7%	14,8%	15,5%
Accidents solved by others/No more necessary	14,2%	14,0%	13,6%	14,8%	14,3%	14,4%	14,6%
Harbours	16,7%	14,7%	12,3%	11,1%	13,5%	16,2%	15,5%
Recoveries	14,2%	14,0%	14,3%	14,9%	14,1%	16,6%	12,0%
Rescue of Animals	14,6%	13,8%	13,8%	13,8%	13,6%	14,5%	16,0%
Rescue of person	14,4%	13,7%	14,6%	14,1%	14,1%	14,3%	14,7%
Safety of buildings and Structures	15,6%	15,7%	14,9%	15,0%	15,1%	12,8%	10,9%
Others	15,6%	14,6%	14,3%	14,3%	14,6%	14,0%	12,8%
TOTAL BY TYPE:	14,5%	14,1%	14,0%	14,0%	14,3%	14,6%	14,6%

Table 32 – Percentage distribution of rescue events by type for each day of the week.

The following table shows the distribution in percentage values, calculated on the total per column, of interventions by day time (rows) and type of rescue event (columns). For each column the histograms are proportional to the value reported in the cells.

TIME SLOT	RESCUE EVENTS																
	Water	Aircraft	Unstable Trees	Doors and Windows Openings	Lift malfunction	Reclamation from Insects	False Alarm	Gas leak	Fires and Explosions	Road accidents	Accidents solved by others/No more necessary	Harbours	Recoveries	Rescue of Animals	Rescue of person	Safety of buildings and Structures	Others
0-1	3,5%	4,6%	2,2%	2,8%	2,4%	0,2%	3,2%	2,6%	3,3%	2,9%	2,9%	1,7%	1,1%	1,6%	2,7%	0,9%	2,1%
1-2	2,6%	1,2%	1,8%	1,8%	1,5%	0,0%	2,2%	1,6%	2,6%	2,7%	1,9%	0,7%	0,5%	1,0%	1,9%	0,6%	1,5%
2-3	2,2%	0,0%	1,2%	1,0%	0,8%	0,0%	1,6%	1,0%	2,0%	2,1%	1,2%	0,7%	0,4%	0,5%	1,6%	0,3%	1,2%
3-4	1,7%	0,6%	0,9%	0,6%	0,5%	0,0%	1,1%	0,5%	1,6%	1,8%	1,0%	0,5%	0,4%	0,3%	1,4%	0,2%	1,0%
4-5	1,6%	0,0%	0,7%	0,4%	0,4%	0,0%	1,1%	0,4%	1,3%	1,7%	0,8%	0,6%	0,3%	0,2%	1,2%	0,2%	0,9%
5-6	1,8%	1,0%	0,9%	0,4%	0,5%	0,0%	1,3%	0,4%	1,3%	2,1%	0,9%	0,7%	0,3%	0,3%	1,4%	0,3%	1,0%
6-7	2,2%	0,7%	1,7%	0,7%	1,4%	0,1%	1,5%	0,8%	1,4%	2,8%	1,2%	2,3%	0,5%	1,0%	2,1%	0,5%	1,3%
7-8	2,8%	1,6%	2,1%	1,4%	2,8%	0,3%	1,8%	1,8%	1,7%	3,9%	1,8%	1,4%	1,0%	2,1%	2,7%	2,3%	2,1%
8-9	4,8%	12,4%	5,0%	3,4%	4,5%	3,5%	3,5%	4,1%	3,1%	5,3%	3,5%	11,0%	7,6%	5,7%	6,3%	10,0%	6,2%
9-10	6,4%	8,5%	8,5%	5,0%	5,4%	9,4%	4,1%	5,3%	3,3%	4,8%	4,9%	10,8%	10,9%	8,0%	6,7%	9,7%	8,6%
10-11	6,1%	7,2%	7,7%	6,0%	6,3%	11,1%	5,0%	6,0%	4,0%	4,7%	5,4%	10,8%	11,4%	7,7%	6,8%	9,8%	8,5%
11-12	6,0%	11,5%	6,6%	6,9%	6,2%	9,4%	5,3%	6,3%	5,0%	5,2%	6,5%	7,7%	10,8%	7,4%	6,9%	9,1%	7,5%
12-13	4,0%	4,7%	3,9%	5,7%	6,5%	3,0%	4,2%	5,4%	5,3%	5,2%	5,7%	4,7%	6,4%	5,4%	6,2%	5,3%	4,9%
13-14	4,9%	5,6%	5,1%	6,4%	5,8%	4,5%	4,4%	4,8%	6,0%	5,2%	6,0%	5,2%	3,9%	5,9%	5,5%	5,7%	4,9%
14-15	5,5%	5,4%	6,6%	5,3%	4,6%	6,8%	4,8%	4,6%	6,3%	5,4%	5,8%	6,6%	8,4%	6,4%	5,2%	7,8%	6,2%
15-16	5,6%	4,6%	7,0%	4,8%	4,2%	9,3%	5,2%	4,6%	6,6%	5,9%	5,8%	5,4%	9,6%	7,1%	5,2%	7,8%	6,6%
16-17	5,5%	5,1%	7,1%	5,3%	5,1%	9,8%	6,3%	5,4%	6,6%	5,7%	6,3%	6,6%	8,2%	6,3%	5,1%	7,3%	6,4%
17-18	5,7%	5,7%	6,8%	6,1%	6,6%	10,1%	6,9%	6,5%	6,9%	6,1%	7,0%	6,0%	6,3%	6,7%	5,4%	6,1%	6,0%
18-19	5,3%	5,9%	6,0%	6,8%	8,1%	9,4%	7,1%	7,5%	6,4%	6,2%	6,8%	5,1%	3,8%	6,4%	5,2%	4,9%	5,4%
19-20	4,1%	1,9%	4,2%	6,3%	8,1%	4,1%	6,2%	7,6%	5,5%	5,3%	5,7%	2,4%	2,0%	4,5%	5,0%	3,1%	4,0%
20-21	4,0%	4,9%	3,5%	6,5%	7,2%	2,9%	6,7%	7,7%	5,9%	4,8%	5,5%	4,0%	1,9%	4,2%	5,0%	2,4%	4,0%
21-22	5,2%	2,2%	4,2%	7,4%	4,6%	4,3%	6,6%	6,6%	5,7%	3,7%	5,6%	2,5%	1,9%	5,2%	4,3%	2,6%	3,9%
22-23	4,7%	1,5%	3,5%	4,9%	3,6%	1,4%	5,2%	4,9%	4,4%	3,3%	4,4%	1,6%	1,3%	3,5%	3,4%	1,7%	3,2%
23-24	4,0%	3,2%	2,7%	3,8%	2,8%	0,4%	4,8%	3,7%	3,8%	3,1%	3,5%	0,9%	1,1%	2,6%	3,0%	1,3%	2,4%
TOT 24 HOURS	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Table 33 – Percentage distribution by day time of the rescue event carried out in 2017

The following table shows the distribution in percentage values, calculated on the total per column, of interventions by day time (rows) and type of rescue event (columns). For each row the histograms are proportional to the value reported in the cells.

TIME SLOT	RESCUE EVENT																
	Fires and Explosions	Doors and Windows Openings	Others	Rescue of person	Safety of buildings and Structures	Recoveries	Road accidents	Unstable Trees	Accidents solved by others/No more necessary	Water	Reclamation from Insects	Gas leak	Lift malfunction	Rescue of Animals	False Alarm	Harbours	Aircraft
0-1	41,1%	15,9%	6,8%	8,3%	2,3%	1,8%	4,8%	3,2%	4,0%	4,7%	0,2%	2,6%	1,9%	1,0%	1,0%	0,2%	0,1%
1-2	44,5%	13,7%	6,8%	8,1%	2,0%	1,3%	6,0%	3,5%	3,6%	4,8%	0,0%	2,1%	1,6%	0,9%	0,9%	0,1%	0,0%
2-3	47,6%	10,4%	7,0%	8,9%	1,7%	1,3%	6,3%	3,2%	3,2%	5,5%	0,0%	1,9%	1,2%	0,6%	1,0%	0,1%	0,0%
3-4	48,1%	8,3%	7,5%	10,2%	1,5%	1,5%	7,0%	3,0%	3,5%	5,7%	0,0%	1,3%	1,0%	0,4%	0,9%	0,1%	0,0%
4-5	47,6%	6,6%	8,0%	10,6%	1,7%	1,4%	8,0%	3,0%	3,1%	6,3%	0,0%	1,1%	1,0%	0,4%	1,0%	0,2%	0,0%
5-6	43,6%	6,1%	8,6%	11,5%	2,0%	1,2%	9,1%	3,6%	3,5%	6,6%	0,1%	1,1%	1,1%	0,5%	1,1%	0,2%	0,1%
6-7	35,6%	8,1%	8,5%	12,9%	2,8%	1,8%	9,1%	4,9%	3,4%	6,1%	0,2%	1,6%	2,2%	1,3%	0,9%	0,5%	0,0%
7-8	28,2%	10,8%	9,3%	11,2%	8,3%	2,2%	8,6%	4,1%	3,4%	5,1%	0,5%	2,5%	3,1%	1,7%	0,8%	0,2%	0,1%
8-9	21,2%	10,7%	11,0%	10,6%	15,0%	7,1%	4,8%	4,0%	2,6%	3,6%	2,0%	2,3%	2,0%	1,9%	0,6%	0,6%	0,2%
9-10	18,4%	12,5%	12,4%	9,1%	11,7%	8,2%	3,5%	5,4%	3,0%	3,9%	4,3%	2,4%	1,9%	2,2%	0,6%	0,5%	0,1%
10-11	20,8%	13,9%	11,3%	8,6%	11,0%	7,9%	3,2%	4,6%	3,1%	3,4%	4,7%	2,5%	2,1%	2,0%	0,7%	0,5%	0,1%
11-12	24,7%	15,4%	9,6%	8,3%	9,8%	7,2%	3,3%	3,8%	3,5%	3,2%	3,8%	2,5%	1,9%	1,8%	0,7%	0,3%	0,1%
12-13	32,5%	15,6%	7,8%	9,3%	7,0%	5,2%	4,1%	2,7%	3,8%	2,6%	1,5%	2,6%	2,5%	1,6%	0,7%	0,2%	0,1%
13-14	34,7%	16,5%	7,4%	7,7%	7,1%	3,1%	3,9%	3,4%	3,8%	3,1%	2,2%	2,2%	2,1%	1,7%	0,7%	0,3%	0,1%
14-15	33,5%	12,6%	8,5%	6,8%	9,0%	6,1%	3,8%	4,0%	3,4%	3,2%	3,0%	2,0%	1,5%	1,7%	0,7%	0,3%	0,1%
15-16	33,9%	11,1%	8,8%	6,5%	8,7%	6,6%	3,9%	4,1%	3,3%	3,1%	3,9%	1,9%	1,4%	1,8%	0,7%	0,2%	0,0%
16-17	34,1%	12,0%	8,4%	6,4%	8,1%	5,7%	3,8%	4,2%	3,6%	3,0%	4,1%	2,2%	1,7%	1,6%	0,8%	0,3%	0,1%
17-18	34,7%	13,6%	7,8%	6,6%	6,6%	4,2%	4,0%	3,9%	3,8%	3,1%	4,1%	2,6%	2,1%	1,7%	0,9%	0,2%	0,1%
18-19	33,8%	16,1%	7,4%	6,6%	5,6%	2,7%	4,2%	3,6%	3,9%	3,0%	4,1%	3,2%	2,7%	1,7%	1,0%	0,2%	0,1%
19-20	35,4%	18,1%	6,6%	7,8%	4,3%	1,8%	4,4%	3,1%	4,0%	2,8%	2,1%	3,9%	3,2%	1,4%	1,0%	0,1%	0,0%
20-21	37,9%	18,6%	6,6%	7,7%	3,3%	1,6%	4,0%	2,5%	3,8%	2,7%	1,5%	4,0%	2,9%	1,3%	1,1%	0,2%	0,1%
21-22	36,3%	21,2%	6,5%	6,7%	3,6%	1,6%	3,1%	3,1%	3,9%	3,6%	2,3%	3,4%	1,8%	1,6%	1,1%	0,1%	0,0%
22-23	38,0%	18,7%	7,1%	7,1%	3,0%	1,5%	3,7%	3,4%	4,1%	4,3%	1,0%	3,4%	1,9%	1,5%	1,1%	0,1%	0,0%
23-24	39,8%	17,6%	6,5%	7,6%	2,9%	1,5%	4,2%	3,3%	4,0%	4,5%	0,3%	3,1%	1,8%	1,3%	1,3%	0,1%	0,1%

Table 34 – Percentage distribution by day time of the interventions carried out in 2017

In the following table the Percentage value of interventions in the day time, are reported by regions (columns), where for each column the histograms are proportional to the value reported in each cell.

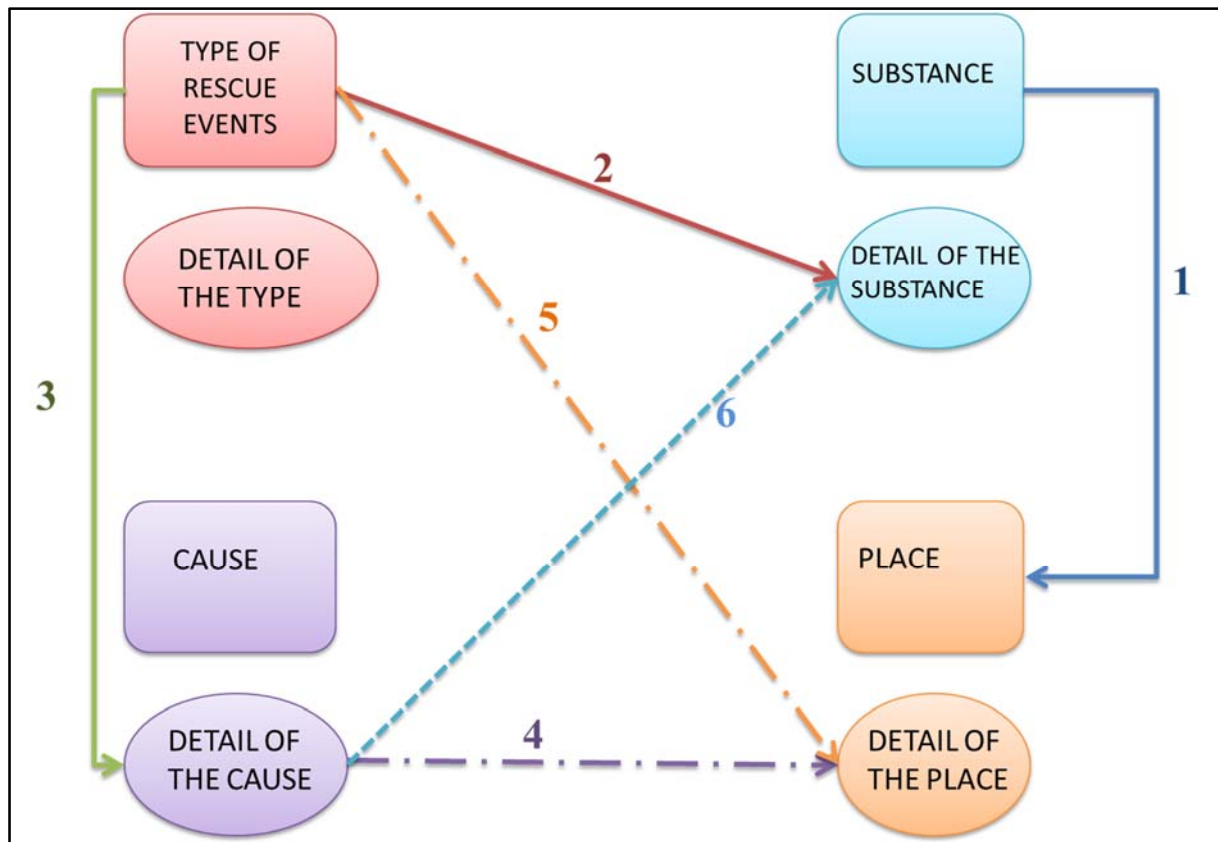
TIME SLOT	REGION																		NATIONAL TOTAL BY TIME SLOT
	ABRUZZO	BASILICATA	CALABRIA	CAMPANIA	EMILIA ROMAGNA	FRUII VENEZIA GIULIA	LAZIO	LIGURIA	LOMBARDIA	MARCHE	MOLISE	PIEMONTE	PUGLIA	SARDEGNA	SICILIA	TOSCANA	UMBRIA	VENETO	
0-1	1,8%	2,4%	2,6%	2,8%	2,6%	2,1%	2,8%	2,5%	3,2%	1,1%	2,0%	2,7%	3,2%	2,5%	3,0%	2,3%	1,9%	2,7%	2,6%
1-2	1,1%	1,8%	2,1%	2,2%	1,8%	1,6%	2,0%	1,7%	2,4%	0,8%	1,4%	2,0%	2,3%	1,9%	2,3%	1,7%	0,9%	2,0%	1,9%
2-3	1,0%	1,2%	1,5%	1,5%	1,3%	1,0%	1,5%	1,3%	1,7%	0,6%	1,0%	1,4%	1,7%	1,6%	1,7%	1,2%	0,6%	1,6%	1,4%
3-4	0,8%	0,7%	1,1%	1,1%	1,0%	0,9%	1,2%	0,9%	1,5%	0,5%	0,6%	1,1%	1,2%	1,2%	1,3%	0,9%	0,5%	1,2%	1,1%
4-5	0,8%	0,7%	1,0%	0,9%	0,9%	0,7%	1,0%	0,8%	1,3%	0,4%	0,6%	1,0%	1,0%	1,0%	1,1%	0,7%	0,5%	1,0%	0,9%
5-6	0,9%	1,0%	0,9%	0,9%	1,0%	0,9%	1,1%	1,0%	1,3%	0,4%	0,7%	1,1%	0,9%	0,9%	1,0%	0,8%	0,5%	1,2%	1,0%
6-7	1,1%	1,3%	1,2%	1,1%	1,3%	1,8%	1,3%	1,3%	1,7%	0,7%	1,3%	1,5%	1,0%	1,2%	1,1%	1,2%	0,7%	1,9%	1,3%
7-8	2,6%	1,6%	1,6%	2,3%	2,0%	2,4%	1,4%	1,6%	2,3%	1,8%	1,8%	2,0%	1,8%	1,6%	1,6%	1,8%	1,3%	2,3%	1,9%
8-9	7,1%	3,6%	4,3%	3,7%	4,0%	5,4%	4,8%	4,6%	4,3%	9,8%	3,9%	3,9%	3,5%	4,3%	3,7%	4,0%	7,1%	5,3%	4,7%
9-10	7,4%	5,0%	7,0%	5,8%	5,2%	5,7%	5,7%	5,6%	4,7%	9,9%	7,5%	5,1%	5,2%	6,5%	5,1%	5,2%	7,9%	5,2%	5,8%
10-11	7,6%	6,1%	6,6%	6,0%	6,0%	6,5%	6,1%	6,3%	5,2%	10,0%	7,3%	5,4%	6,0%	6,8%	5,8%	6,2%	8,1%	5,7%	6,3%
11-12	7,3%	6,9%	6,6%	6,2%	6,2%	6,6%	6,6%	6,7%	5,3%	9,4%	6,9%	6,1%	6,5%	7,1%	6,2%	6,7%	8,5%	5,7%	6,5%
12-13	5,2%	6,3%	5,2%	5,6%	5,2%	5,1%	5,2%	5,5%	4,9%	5,5%	5,6%	5,0%	5,8%	5,9%	5,3%	5,5%	6,0%	5,0%	5,3%
13-14	5,5%	6,4%	5,7%	5,5%	5,7%	5,4%	6,2%	5,8%	5,0%	4,3%	6,3%	4,9%	6,1%	6,4%	6,4%	5,8%	5,1%	5,1%	5,6%
14-15	7,0%	6,1%	6,1%	6,1%	5,9%	5,9%	6,5%	6,2%	5,3%	7,8%	6,4%	5,8%	5,6%	5,7%	6,2%	6,2%	6,7%	5,4%	6,1%
15-16	7,3%	6,9%	6,0%	6,1%	6,3%	6,4%	6,6%	6,3%	5,5%	8,4%	7,5%	6,0%	5,5%	5,7%	6,0%	6,4%	7,8%	6,0%	6,3%
16-17	7,1%	6,7%	6,0%	6,2%	6,6%	6,2%	6,5%	6,3%	5,9%	7,4%	7,4%	6,4%	5,7%	6,0%	6,0%	6,5%	7,6%	6,0%	6,4%
17-18	6,1%	7,4%	6,6%	6,4%	6,9%	6,6%	6,5%	6,5%	6,6%	6,0%	7,2%	6,9%	6,1%	6,4%	6,4%	6,6%	6,4%	6,5%	6,5%
18-19	5,3%	6,3%	6,1%	6,1%	6,9%	6,8%	6,0%	6,1%	6,5%	4,2%	5,8%	7,0%	5,9%	6,0%	6,0%	6,8%	5,5%	6,6%	6,2%
19-20	3,9%	5,4%	4,4%	5,8%	5,8%	5,7%	4,3%	5,0%	5,9%	2,9%	4,6%	6,2%	5,3%	4,8%	4,8%	5,7%	3,9%	5,5%	5,1%
20-21	4,3%	4,8%	5,3%	4,2%	5,4%	5,5%	4,5%	5,4%	6,0%	2,6%	3,9%	5,9%	5,8%	4,9%	5,6%	5,2%	4,4%	6,1%	5,1%
21-22	4,0%	5,1%	5,3%	5,8%	5,1%	4,6%	5,2%	5,4%	5,7%	2,3%	4,2%	5,2%	5,8%	5,0%	5,5%	5,6%	3,6%	5,0%	5,1%
22-23	2,8%	3,7%	3,8%	4,3%	3,7%	3,5%	4,0%	3,8%	4,4%	1,7%	3,1%	4,1%	4,2%	3,7%	4,3%	3,9%	2,6%	3,9%	3,8%
23-24	2,2%	2,8%	3,2%	3,6%	3,1%	2,7%	3,2%	3,1%	3,7%	1,3%	2,9%	3,2%	3,8%	2,9%	3,6%	3,0%	1,9%	3,3%	3,1%
TOTAL REGIONAL	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Table 35 – Percentage distribution by day time of intervention carried out at regional level in 2017

4.6 Relations and statistical analysis of the interventions data

The intervention form, for the collection has the format that follows, in order correlate the four fundamentals elements of the events, with the connected details

- Relation No.1 Substance -Place of Accident
- Relation No. 2 Accident type – Detail on Substances
- Relation No. 3 Accident type – Detail on Causes
- Relation No. 4b Detail on Causes - Place of Accident
- Relation No. 4c Cause Group – Place of Accident
- Relation No. 5 Type of accident – Detail on Places
- Relation No. 6 Detsil on Causes - Detail on Substances



Picture 58 – Structure of the intervention form

4.6.1 Relation Substance - Place of Accident (Correlation n.1)

Followingly, the table “Substance Group - Place of Accident Group” for 2017, in which only the places with frequency of interventions higher than 0.1% of the whole amount are reported. The application of this filter has reduced the number of reported places where intervention have taken place from 30 to 15, giving anyway a representation of the 99.5% of the whole amount of interventions.

The total number by substance comprehends also the Percentage values of the places non-reported in the table (those with frequency lower than 0.1%).

PLACE	SUBSTANCE								TOTAL BY PLACE
	Solid Combustibles	Other Flammables and Combustibles	Building Products	Transportation Means	Chemicals	Radioactive Substances	Others	*	
Places for Specific Uses	0,5%	0,1%	0,9%	0,1%	0,0%	0,0%	1,4%	0,0%	2,9%
Residential Places and Homes	6,0%	1,6%	20,1%	0,6%	0,1%	0,0%	16,9%	0,1%	45,4%
Mechanic Factories	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,1%	0,0%	0,2%
Factories (Others)	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,1%
Storages Premises (Others)	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,1%
Storages of Solid Combustibles	0,3%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,4%
Commercial and Sales Stores	0,2%	0,0%	0,1%	0,0%	0,0%	0,0%	0,3%	0,0%	0,7%
Plants and Storage of Combustibles	0,0%	0,1%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,2%
Show and Leisure Places	0,1%	0,0%	0,0%	0,0%	0,0%	0,0%	0,2%	0,0%	0,4%
Agricultural and Farming Places	11,4%	0,0%	0,2%	0,3%	0,0%	0,0%	1,2%	0,1%	13,2%
Places and Premises with Vertical Lay-out / Development	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,1%	0,0%	0,2%
Traffic and Parking Areas	11,5%	1,0%	0,8%	6,8%	0,1%	0,0%	5,0%	0,0%	25,1%
Mountain Areas	0,2%	0,0%	0,0%	0,0%	0,0%	0,0%	0,2%	0,0%	0,4%
Other Places	0,8%	0,1%	0,1%	0,4%	0,0%	0,0%	1,3%	0,0%	2,6%
*	0,1%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	7,5%	7,6%
Total by substance	31,4%	2,9%	22,3%	8,4%	0,3%	0,0%	27,1%	7,6%	99,5%

(*) Rescue event report still open, data partially inserted.

Table 36 –Percentage values of intervention by Place of Accident and Substance.

4.6.2 Relation Type of Accident – Detail on Substances (Correlation n.2).

Followingly the table “Type of intervention - Detail on Substances” for 2017, in which only the places with frequency of interventions higher than 0.7% of the whole amount are reported. The application of this filter has reduced the number of reported substances that have been involved in interventions from 142 to 27, giving anyway a representation of the 90.5% of the whole amount of interventions.

SUBSTANCE	DETAIL OF THE SUBSTANCE	Water	Unstable Trees	Doors and Openings	Lift malfunction	Insects	Reclamation from	False Alarm	Gas leak	Fires and Explosions	others/No more necessary	Accidents solved by	Recoveries	Rescue of Animals	Rescue of person	Safety of buildings and Structures	Others	Total by substance	
Solid Combustibles	Trees	0,0%	3,1%	0,0%	0,0%	0,1%	0,0%	0,0%	0,0%	1,3%	0,2%	0,1%	0,0%	0,1%	0,0%	0,1%	0,0%	0,8%	5,9%
	Bushes and Mediterranean Coast Wildland	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	1,8%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	3,1%
	Fornitures	0,0%	0,0%	0,1%	0,0%	0,0%	0,0%	0,0%	0,0%	0,6%	0,0%	0,0%	0,2%	0,0%	0,0%	0,0%	0,0%	0,0%	1,9%
	Hay , Straw and similar	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,7%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	1,1%
	Dust	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,7%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,8%
	Wood and sughero	0,0%	0,2%	0,2%	0,0%	0,0%	0,0%	0,0%	0,0%	0,7%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	1,1%
	Waste	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	2,7%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	1,4%
	Scrub	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,1%	0,0%	10,6%	0,0%	0,4%	0,0%	0,0%	0,0%	0,0%	0,0%	2,8%
	Textiles , Clothing And Fibers	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,1%	0,0%	0,0%	0,6%	0,0%	0,0%	0,0%	0,0%	0,0%	11,2%
	Others	0,0%	0,0%	0,2%	0,0%	0,1%	0,0%	0,0%	0,0%	1,7%	0,0%	0,1%	0,2%	0,0%	0,1%	0,1%	0,1%	0,3%	0,7%
Other Flammables and Combustibles	LPG	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,5%	0,1%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,1%	0,7%
	Gas from Network	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	1,5%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	1,6%
Building Products	Chimneys, Smoke Ducts and Chimney Stacks	0,0%	0,0%	0,0%	0,0%	0,1%	0,0%	0,0%	0,0%	0,8%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,1%	0,1%	1,6%
	Cornices	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,6%	0,0%	1,3%
	Windows	0,0%	0,0%	0,3%	0,0%	0,1%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,3%	0,1%	0,1%	0,1%	0,7%
	Plaster	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	1,1%	0,1%	0,9%
	Structural Bearing Walls	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,1%	0,0%	0,0%	0,0%	0,7%	0,1%	1,2%
	Entrance Door	0,0%	0,0%	10,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,4%	0,0%	0,0%	1,2%	0,0%	0,1%	0,1%	0,9%
	Inclined Roofs	0,1%	0,0%	0,0%	0,0%	0,1%	0,0%	0,0%	0,0%	0,4%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,7%	0,1%	11,8%
	Others	0,1%	0,0%	0,2%	0,0%	0,1%	0,0%	0,0%	0,0%	0,1%	0,0%	0,0%	0,1%	0,1%	0,1%	0,1%	0,6%	0,2%	1,4%
Transportation Means	Trucks and Tenders	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,3%	0,3%	0,0%	0,2%	0,0%	0,0%	0,0%	0,0%	0,1%	0,9%
	Cars	0,0%	0,0%	0,1%	0,0%	0,0%	0,0%	0,0%	0,0%	1,8%	2,8%	0,2%	0,4%	0,1%	0,2%	0,0%	0,2%	0,2%	5,9%
Others	Water	1,6%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,1%	0,0%	0,1%	1,9%
	Machineries (generic)	0,0%	0,0%	0,1%	0,7%	0,0%	0,0%	0,0%	0,1%	0,0%	0,1%	0,0%	0,1%	0,0%	0,1%	0,0%	0,0%	0,0%	7,7%
	Not evaluated	0,4%	0,1%	1,8%	0,5%	0,8%	0,4%	0,2%	1,0%	0,2%	1,4%	0,9%	0,6%	3,4%	0,4%	1,7%	0,4%	1,7%	1,1%
	Others	0,4%	0,0%	0,6%	0,3%	0,9%	0,1%	0,1%	0,7%	0,1%	0,3%	1,0%	0,5%	1,1%	0,3%	1,4%	0,3%	1,4%	13,7%
Total by type	Water	0,2%	0,3%	0,7%	0,1%	0,1%	0,0%	0,1%	2,9%	0,3%	0,1%	0,4%	0,1%	0,9%	0,7%	0,9%	0,7%	0,9%	7,6%
		3,5%	3,7%	14,5%	2,0%	2,7%	0,8%	2,6%	32,6%	4,2%	3,6%	4,4%	1,6%	7,9%	7,0%	8,4%		90,5%	

(*) Rescue event report still open, data partially inserted.

Table 37 –Distribution in Percentage values of interventions in 2017 by Detail on Substances and Type of Accidents

4.6.3 Relation Type of Accidents – Detail on Causes (Correlation n.3)

Followingly the table “Type of intervention -Detail on Causes ” for 2017, in which only the causes with frequency of occurring higher than 0.5% of the whole amount of events are reported. The application of this filter has reduced the number of reported causes of interventions from 97 to 29, giving anyway a representation of the 92.8% of the whole amount of interventions.

CAUSE	DETAIL OF THE CAUSE	Water	Unstable Trees	Doors and Windows Openings	Lift malfunction	Reclamation from Insects	False Alarm	Gas leak	Fires and Explosions	Road accidents	/No more necessary	Accidents solved by others	Recoveries	Rescue of Animals	Rescue of person	Safety of buildings and Structures	Others	Total by cause	
Causes provoking Water Damages	Snow , Hail	0,1%	0,2%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,2%	0,0%	0,1%	0,3%	0,2%	1,1%
	Rain	0,4%	0,1%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,1%	0,1%	0,7%
	Collapse of Pipes and Plants	1,1%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,1%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	1,2%
	Strong Wind , Storms etc.	0,0%	1,7%	0,1%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,1%	0,1%	0,0%	0,0%	0,0%	0,0%	0,0%	0,9%	3,5%
Causes provoking Statical Unsafe Conditions	Severe Weather Conditions	0,1%	0,5%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,1%	0,0%	0,0%	0,0%	0,0%	0,0%	0,3%	0,3%	1,4%
	Water Inlet	0,3%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,3%	0,0%	0,7%
	Heartquakes	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	2,2%	0,0%	0,0%	0,0%	1,5%	0,6%	4,4%
Causes provoking need of Rescue to Persons	Age	0,0%	0,2%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	1,5%	0,3%	2,2%
	Arrest of Elevator	0,0%	0,0%	0,0%	0,5%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,1%	0,0%	0,0%	0,6%
	Fall from Heights	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	1,0%	0,0%	0,0%	1,2%
	Road Accident	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,5%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,7%
	Illness	0,0%	0,0%	0,1%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	1,2%	0,0%	0,1%	1,4%
	Not Being Possible to Evaluate	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,1%	0,0%	0,0%	0,0%	0,0%	0,0%	0,2%	0,0%	0,0%	0,5%
Causes of Accident of Transportation Means and Vehicles	Others	0,0%	0,0%	0,1%	0,0%	0,1%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,6%	0,0%	0,1%	1,0%
	Lack of Attention	0,0%	0,0%	0,7%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,2%	0,0%	0,1%	0,0%	0,0%	0,0%	0,0%	0,0%	1,2%
	Crashes	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	1,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,1%	1,2%
Cause of Fire Ignition	Others	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,3%	0,0%	0,1%	0,0%	0,0%	0,0%	0,0%	0,0%	0,1%	0,5%
	Chimney and/or Owen Ducts	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	1,3%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	1,4%
	Electrical Causes	0,0%	0,0%	0,0%	0,1%	0,0%	0,0%	0,0%	0,0%	1,2%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,1%	1,3%
	Cigarette Butts and Matches	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,6%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,7%
Malicious / Intentional Causes	Others	0,0%	0,0%	0,0%	0,0%	0,0%	0,1%	0,1%	2,1%	0,0%	0,1%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,1%	2,6%
	Probably Malicious/Intentional	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	1,3%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	1,4%
Not Being Possible to Evaluate	Not Being Possible to Evaluate	0,4%	0,4%	1,3%	0,5%	0,5%	0,4%	0,8%	20,2%	1,0%	1,9%	0,4%	0,5%	1,3%	0,6%	1,3%	0,6%	1,3%	31,3%
Causes of Other Types of Intervention	Unforeseen Causes	0,1%	0,1%	2,2%	0,1%	0,9%	0,0%	0,2%	0,3%	0,1%	0,1%	0,3%	0,5%	0,3%	0,1%	0,5%	0,1%	0,5%	5,8%
	General Lack of Attention	0,1%	0,0%	5,1%	0,0%	0,0%	0,0%	0,1%	0,2%	0,0%	0,1%	0,1%	0,0%	0,2%	0,0%	0,1%	0,0%	0,1%	6,1%
	Bad Working of Plants and or Machinery	0,0%	0,0%	0,3%	0,7%	0,0%	0,0%	0,2%	0,1%	0,0%	0,0%	0,0%	0,0%	0,1%	0,0%	0,2%	0,0%	0,2%	1,6%
	Door Lock blocked (no Burglary)	0,0%	0,0%	2,6%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,2%	0,0%	0,2%	0,0%	0,0%	2,9%
	Others	0,1%	0,2%	0,7%	0,1%	1,1%	0,2%	0,4%	0,7%	0,1%	0,6%	0,3%	0,3%	0,4%	0,2%	1,3%	0,2%	1,3%	6,6%
*	*	0,2%	0,3%	0,7%	0,1%	0,1%	0,0%	0,1%	3,0%	0,3%	0,1%	0,3%	0,1%	0,3%	0,1%	0,9%	0,6%	0,9%	7,6%
Total by type		3,5%	3,7%	14,5%	2,0%	2,7%	0,8%	2,6%	32,6%	4,2%	3,6%	4,4%	1,6%	7,9%	7,0%	8,4%	92,8%		

(*) Rescue event report still open, data partially inserted.

Table 38 – Distribution in Percentage values of interventions in 2017 by Detail on Causes and Type of Accidents

4.6.4 Relation Detail on Causes of Accident – Place of Accident (Correlation n.4b)

Followingly the table “Detail on Causes – Place of Accident” for 2017, in which only the places with frequency of happening higher than 0.3% of the whole number of events are reported. The application of this filter has reduced the number of reported places of interventions from 30 to 6, and the number of causes from 97 to 28, giving anyway a representation of the 89.7 % of the whole amount of interventions. The total amounts by causes and places consider also the couplings cause-place that have not been reported in the table (those with frequency lower than 0.3%)

CAUSE	DETAIL OF THE CAUSE	PLACE						Total by Cause
		Places for Specific Uses	Residential Places and Homes	Agricultural and Farming Places	Traffic and Parking Areas	Other Places	*	
Causes provoking Water Damages	Snow , Hail	0,1%	0,4%	0,1%	0,6%	0,0%	0,0%	1,1%
	Rain	0,0%	0,3%	0,0%	0,3%	0,0%	0,0%	0,7%
	Collapse of Pipes and Plants	0,1%	0,9%	0,0%	0,2%	0,0%	0,0%	1,2%
	Strong Wind , Storms etc.	0,1%	0,9%	0,1%	2,3%	0,1%	0,0%	3,6%
Causes provoking Statical Unsafe Conditions	Severe Weather Conditions	0,1%	0,4%	0,1%	0,8%	0,0%	0,0%	1,4%
	Water Inlet	0,1%	0,5%	0,0%	0,1%	0,0%	0,0%	0,7%
	Heartquakes	0,4%	3,7%	0,0%	0,2%	0,0%	0,0%	4,4%
	Age	0,1%	1,4%	0,0%	0,5%	0,0%	0,0%	2,2%
Causes provoking need of Rescue to Persons	Arrest of Elevator	0,1%	0,5%	0,0%	0,0%	0,0%	0,0%	0,6%
	Fall from Heighs	0,0%	1,0%	0,1%	0,0%	0,0%	0,0%	1,2%
	Road Accident	0,0%	0,0%	0,0%	0,7%	0,0%	0,0%	0,7%
	Illness	0,0%	1,3%	0,0%	0,0%	0,0%	0,0%	1,4%
	Others	0,1%	0,8%	0,0%	0,1%	0,1%	0,0%	1,0%
Causes of Accident of Transportation Means and Vehicles	Lack of Attention	0,0%	0,8%	0,0%	0,3%	0,0%	0,0%	1,2%
	Crashes	0,0%	0,0%	0,0%	1,2%	0,0%	0,0%	1,2%
	Others	0,0%	0,0%	0,0%	0,4%	0,0%	0,0%	0,5%
Cause of Fire Ignition	Chimney and/or Owen Ducts	0,0%	1,3%	0,0%	0,0%	0,0%	0,0%	1,4%
	Electrical Causes	0,1%	0,6%	0,1%	0,5%	0,0%	0,0%	1,3%
	Others	0,1%	0,8%	0,7%	0,7%	0,1%	0,0%	2,6%
Malicious / Intentional Causes	Probably Maliciuos/Intentional	0,1%	0,2%	0,3%	0,6%	0,1%	0,0%	1,4%
Causes of Other Types of Intervention	Unforeseen Causes	0,2%	4,1%	0,2%	1,0%	0,1%	0,0%	5,8%
	General Lack of Attention	0,1%	5,6%	0,1%	0,3%	0,0%	0,0%	6,1%
	Bad Working of Plants and or Machnery	0,1%	1,2%	0,0%	0,1%	0,0%	0,0%	1,6%
	Dangers for People located Indoor	0,0%	0,4%	0,0%	0,0%	0,0%	0,0%	0,4%
	Door Lock blocked (no Burglary)	0,0%	2,8%	0,0%	0,0%	0,0%	0,0%	2,9%
	Others	0,4%	3,6%	0,4%	1,4%	0,5%	0,0%	6,7%
Not Being Possible to Evaluate	Not Being Possible to Evaluate	0,5%	8,3%	9,7%	10,8%	1,0%	0,0%	31,4%
*	*	0,0%	0,0%	0,1%	0,0%	0,0%	7,6%	7,7%
Total by place		2,9%	45,4%	13,2%	25,1%	2,6%	7,6%	89,7%

(*) Rescue event report still open, data partially inserted.

Table 39 – Percentage distribution on interventions in 2017, by Detail on Causes and Place of Accident

4.6.5 Gruppo Luogo – Gruppo Causa (associazione n°4C). Relation Place of Accident – Cause of Accident (Correlation n.4C)

The following table shows, for the year 2017, the relations between the Place of Accident and Cause parameters, considering only places and causes that have been associated in the population of events with frequency higher than 0.3% of the whole amount of interventions. The application of this filter has reduced the number of places from 29 to 9, giving anyway a representation of 98.8% of interventions.

The total amounts by the above mentioned parameters take in account also the Percentage values of the same elements not listed in the table. (couplings cause – place with frequency lesser than 0.3%)

CAUSE	PLACE										Total by cause
	Places for Specific Uses	Residential Places and Homes	Storages of Solid Combustibles	Commercial and Sales Stores	Show and Leisure Places	Agricultural and Farming Places	Traffic and Parking Areas	Mountain Areas	Other Places	*	
Causes of Other Types of Intervention	0,9%	18,3%	0,0%	0,2%	0,1%	0,8%	2,9%	0,0%	0,8%	0,0%	24,2%
Causes provoking Water Damages	0,3%	3,0%	0,0%	0,1%	0,0%	0,3%	3,4%	0,0%	0,1%	0,0%	7,4%
Causes provoking Statical Unsafe Conditions	0,7%	6,7%	0,0%	0,1%	0,0%	0,2%	2,0%	0,0%	0,1%	0,0%	9,9%
Causes provoking need of Rescue to Persons	0,2%	4,3%	0,0%	0,0%	0,0%	0,4%	1,1%	0,1%	0,3%	0,0%	6,6%
Causes of Pollution and/or Losses	0,0%	0,3%	0,0%	0,0%	0,0%	0,0%	0,3%	0,0%	0,0%	0,0%	0,7%
Causes of Accident of Transportation Means and Vehicles	0,0%	0,9%	0,0%	0,0%	0,0%	0,1%	2,4%	0,0%	0,1%	0,0%	3,4%
Cause of Fire Ignition	0,2%	3,3%	0,1%	0,1%	0,0%	1,2%	1,7%	0,0%	0,2%	0,0%	6,9%
Malicious / Intentional Causes	0,1%	0,4%	0,0%	0,0%	0,0%	0,5%	0,6%	0,0%	0,1%	0,0%	1,7%
Not Being Possible to Evaluate	0,5%	8,3%	0,2%	0,2%	0,1%	9,7%	10,8%	0,2%	1,0%	0,0%	31,4%
*	0,0%	0,0%	0,0%	0,0%	0,0%	0,1%	0,0%	0,0%	0,0%	7,6%	7,7%
Total by place	2,9%	45,4%	0,4%	0,7%	0,4%	13,2%	25,1%	0,4%	2,6%	7,6%	98,8%

(*) Rescue event report still open, data partially inserted.

Table 40 – Percentage values of intervention carried out in 2017 by association of Causes of Accident and Place of Accident.

4.6.6 Relation Place of accident – Type of accident (Correlation n. 5)

The following table shows, for the year 2017, the relations between the Place of Accident and the Type of Accident parameters, considering only places and types that have been associated in the population of events with frequency higher than 0.6% on the whole amount of interventions. The application of this filter has reduced the number of places from 251 to 14 and the number of type of accident from 17 to 14, giving anyway a representation of 76.5% of interventions. The total amounts by places and type take in account also the Percentage values of the same elements not listed in the table.

PLACE	DETAIL OF THE PLACE	TYPE OF RESCUE EVENTS														Total by place	
		Water	Unstable Trees	Doors and Windows Openings	Lift malfunction	Reclamation from Insects	False Alarm	Gas leak	Fires and Explosions	Road accidents	Accidents solved by others/necessary	Recoveries	Rescue of Animals	Safety of buildings and person	Others		
Residential Places and Homes	Private flats and Homes	1,9%	0,1%	13,0%	0,6%	1,6%	0,2%	1,1%	3,7%	0,0%	1,4%	2,2%	0,3%	4,8%	2,3%	1,9%	35,1%
	Generic Building	0,4%	0,1%	0,4%	0,9%	0,3%	0,1%	0,4%	1,0%	0,0%	0,3%	0,3%	0,2%	0,3%	2,1%	0,7%	7,4%
	Others	0,1%	0,1%	0,0%	0,0%	0,1%	0,0%	0,0%	0,6%	0,0%	0,1%	0,0%	0,1%	0,1%	0,1%	0,1%	1,3%
Agricultural and Farming Places	Fields	0,0%	0,0%	0,0%	0,0%	0,0%	0,1%	0,0%	5,2%	0,0%	0,2%	0,0%	0,0%	0,1%	0,0%	0,1%	5,8%
	Rural Areas	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	2,3%	0,0%	0,1%	0,0%	0,0%	0,1%	0,0%	0,1%	2,8%
	Forest and Woods	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	2,2%	0,0%	0,1%	0,0%	0,0%	0,3%	0,0%	0,0%	2,7%
	Tree Covered Areas	0,0%	0,1%	0,0%	0,0%	0,0%	0,0%	0,0%	0,4%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,7%
	Others	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,5%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,6%
Traffic and Parking Areas	Urban Roads and Squares	0,2%	1,6%	0,1%	0,0%	0,1%	0,2%	0,6%	5,9%	1,5%	0,6%	0,4%	0,3%	0,3%	0,6%	1,8%	14,1%
	Extrurban Roads	0,0%	0,9%	0,0%	0,0%	0,0%	0,1%	0,0%	2,6%	1,9%	0,3%	0,3%	0,0%	0,1%	0,2%	0,7%	7,2%
	Inner Yard of Buildings	0,0%	0,2%	0,0%	0,0%	0,1%	0,0%	0,1%	0,4%	0,0%	0,0%	0,0%	0,1%	0,0%	0,0%	0,1%	1,1%
	Highway and High Density Urban Roads	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,5%	0,3%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,9%
Other Places	River and Inland Water	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,1%	0,0%	0,0%	0,1%	0,1%	0,2%	0,0%	0,1%	0,6%
	Others	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,3%	0,0%	0,1%	0,0%	0,0%	0,1%	0,0%	0,1%	0,8%
*	*	0,2%	0,3%	0,7%	0,1%	0,1%	0,0%	0,1%	2,9%	0,3%	0,1%	0,3%	0,1%	0,9%	0,6%	0,9%	7,6%
TOTAL BY TYPE		3,5%	3,7%	14,5%	2,0%	2,7%	0,8%	2,6%	32,6%	4,2%	3,6%	4,4%	1,6%	7,9%	7,0%	8,4%	88,6%

(*) Rescue event report still open, data partially inserted.

Table 41 – Distribution Percentage values of intervention carried out in 2017 by association of Place of Accident and Type

4.6.7 Relation Detail on Causes – Detail of Substances (Correlation n.6)

The following table shows, for the year 2017, the relations between the Cause and the Substance parameters, both considered in their details, taking in account only causes and substances that have been present on accidents with frequency higher than 0.8% on the whole amount of interventions. The application of this filter has reduced the number of substances from 141 to 18, and from 96 to 16 for what concerning causes, giving anyway a representation of 76.5% of interventions. The total amounts by causes and substances take in account also the Percentage values of the causes and substances not listed.

CAUSE	DETAIL OF THE CAUSE	Solid Combustibles						Building Products						Transportation Means		Other Flammables	Others	*	TOTAL BY CAUSE		
		Trees	Bushes and Mediterranean Coast	Furnitures	Wood and sughero	Waste	Scrub	Others	Chimneys, Smoke Ducts and Chimney Stacks	Windows	Plaster	Structural Bearing Walls	Entrance Door	Inclined Roofs	Others	Trucks and Tenders	Cars	Gas from Network		Others	*
Causes of Other Types of Intervention	Unforeseen Causes	0,2%	0,0%	0,0%	0,1%	0,0%	0,1%	0,1%	0,1%	0,0%	0,0%	1,7%	0,1%	0,1%	0,0%	0,2%	0,1%	2,3%	0,0%	5,8%	
	General Lack of Attention	0,0%	0,0%	0,1%	0,1%	0,0%	0,0%	0,1%	0,0%	0,1%	0,0%	4,0%	0,0%	0,1%	0,0%	0,1%	0,1%	1,1%	0,0%	6,1%	
	Bad Working of Plants and or Machinery	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,2%	0,0%	0,0%	0,0%	0,0%	0,1%	0,8%	0,0%	1,6%	
	Door Lock blocked (no Burglary)	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	2,4%	0,0%	0,0%	0,0%	0,0%	0,0%	0,3%	0,0%	2,9%	
Causes provoking Water Damages	Others	0,4%	0,0%	0,0%	0,1%	0,0%	0,1%	0,2%	0,1%	0,0%	0,0%	0,5%	0,1%	0,1%	0,0%	0,1%	0,2%	3,8%	0,0%	6,7%	
	Snow , Hail	0,2%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,2%	0,0%	0,1%	0,2%	0,0%	0,3%	0,0%	1,1%	
	Collapse of Pipes and Plants	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,1%	0,8%	0,0%	1,2%	
Causes provoking Statical Unsafe Conditions	Strong Wind , Storms etc.	2,1%	0,0%	0,0%	0,1%	0,0%	0,1%	0,0%	0,1%	0,0%	0,0%	0,1%	0,2%	0,1%	0,0%	0,0%	0,0%	0,4%	0,0%	3,6%	
	Severe Weather Conditions	0,6%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,1%	0,0%	0,0%	0,0%	0,0%	0,3%	0,0%	1,4%	
	Heartquakes	0,0%	0,0%	0,2%	0,0%	0,0%	0,0%	0,2%	0,1%	0,0%	0,7%	0,0%	0,2%	0,3%	0,0%	0,0%	0,0%	1,6%	0,0%	4,4%	
Causes provoking need of Rescue to Persons	Age	0,2%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,7%	0,1%	0,0%	0,1%	0,1%	0,0%	0,0%	0,0%	0,2%	0,0%	2,2%	
	Fall from Heights	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,1%	0,0%	0,0%	0,2%	0,0%	0,0%	0,0%	0,0%	0,0%	0,8%	0,0%	1,2%	
	Illness	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,1%	0,0%	0,4%	0,0%	0,0%	0,0%	0,0%	0,0%	0,8%	0,0%	1,4%	
Causes of Accident of Transportation Means and Vehicles	Others	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,2%	0,0%	0,0%	0,0%	0,0%	0,0%	0,6%	0,0%	1,0%	
	Lack of Attention	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,5%	0,0%	0,0%	0,0%	0,2%	0,0%	0,2%	0,0%	1,2%	
Cause of Fire Ignition	Crashes	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,1%	0,9%	0,0%	0,0%	0,0%	1,2%	
	Others	0,1%	0,1%	0,1%	0,1%	0,1%	0,5%	0,5%	0,1%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,2%	0,0%	0,2%	0,0%	2,6%	
Malicious / Intentional Causes	Probably Malicious/Intentional	0,1%	0,0%	0,1%	0,0%	0,2%	0,1%	0,1%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,3%	0,0%	0,1%	0,0%	1,4%	
Not Being Possible to Evaluate	Not Being Possible to Evaluate	1,6%	1,6%	0,3%	0,5%	2,2%	9,7%	1,2%	0,2%	0,1%	0,1%	0,0%	1,0%	0,2%	0,2%	1,8%	0,5%	6,1%	0,0%	31,4%	
*	*	0,0%	0,0%	0,0%	0,0%	0,0%	0,1%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	7,6%	7,7%	
TOTAL BY SUBSTANCE		5,9%	1,9%	1,1%	1,4%	2,8%	11,2%	3,1%	1,3%	0,9%	1,2%	0,9%	11,8%	1,4%	1,6%	0,9%	5,9%	1,6%	27,1%	7,6%	76,5%

(*) Rescue event report still open, data partially inserted.

Table 42 –Average distribution of interventions, split by Causes and Substances involved, for the year 2017.

4.7 Urgent technical rescue interventions referred to the human resources of the Fire Departments

In this chapter an analysis for the year 2017 has been conducted, by correlation on the volume of the technical rescue intervention activities managed by each Fire Departments to the potential available human resources, as defined by the Decree of the Ministry of Interior dated 11 April 2017 and following acts.

The Units reported in the following table belongs to rank of fire fighters, fire team leaders, heads of fire station, not part of specialized roles. Moreover, interventions conducted by airport and harbour stations, helicopter group, scuba-divers and voluntary fire stations have been subtracted from the total.

The adopted histogram format in the next table makes possible a short comparison between different fire departments, for what concerns interventions conducted, human resources and evolution of the parameter called "Performance index". This parameter is obtained by the ratio number of interventions conducted each year to operative staff consistency. It gives a first orientation value on the effectiveness and sufficiency of the human resources, determining direct comparisons between local situations, often far from being homogenous. More detailed analysis should foresee interactions with other parameters, as duration of interventions, complexity and types of them, has already anticipated in the previous chapters.

PROVINCIAL FIRE DEPARTMENT	RESCUE EVENTS 2017	UNIT OF HUMAN RESOURCE	PERFORMANCE INDEX
AGRIGENTO	7.156	272	26,3
ALESSANDRIA	8.004	254	31,5
ANCONA	7.478	277	27,0
AREZZO	6.468	210	30,8
ASCOLI PICENO	15.967	204	78,3
ASTI	3.876	96	40,4
AVELLINO	8.558	224	38,2
BARI	18.484	444	41,6
BELLUNO	5.693	246	23,1
BENEVENTO	7.814	186	42,0
BERGAMO	5.929	224	26,5
BIELLA	2.029	88	23,1
BOLOGNA	16.402	412	39,8
BRESCIA	7.458	254	29,4
BRINDISI	7.737	168	46,1
CAGLIARI	9.155	376	24,3
CALTANISSETTA	7.066	214	33,0
CAMPOBASSO	5.563	170	32,7
CASERTA	11.866	278	42,7
CATANIA	17.051	424	40,2
CATANZARO	9.728	251	38,8
CHIETI	7.794	216	36,1
COMO	4.348	164	26,5
COSENZA	10.357	296	35,0
CREMONA	3.420	122	28,0

Table 43 (1/3) – Distribution by Fire Department of the Performance index for the year 2017

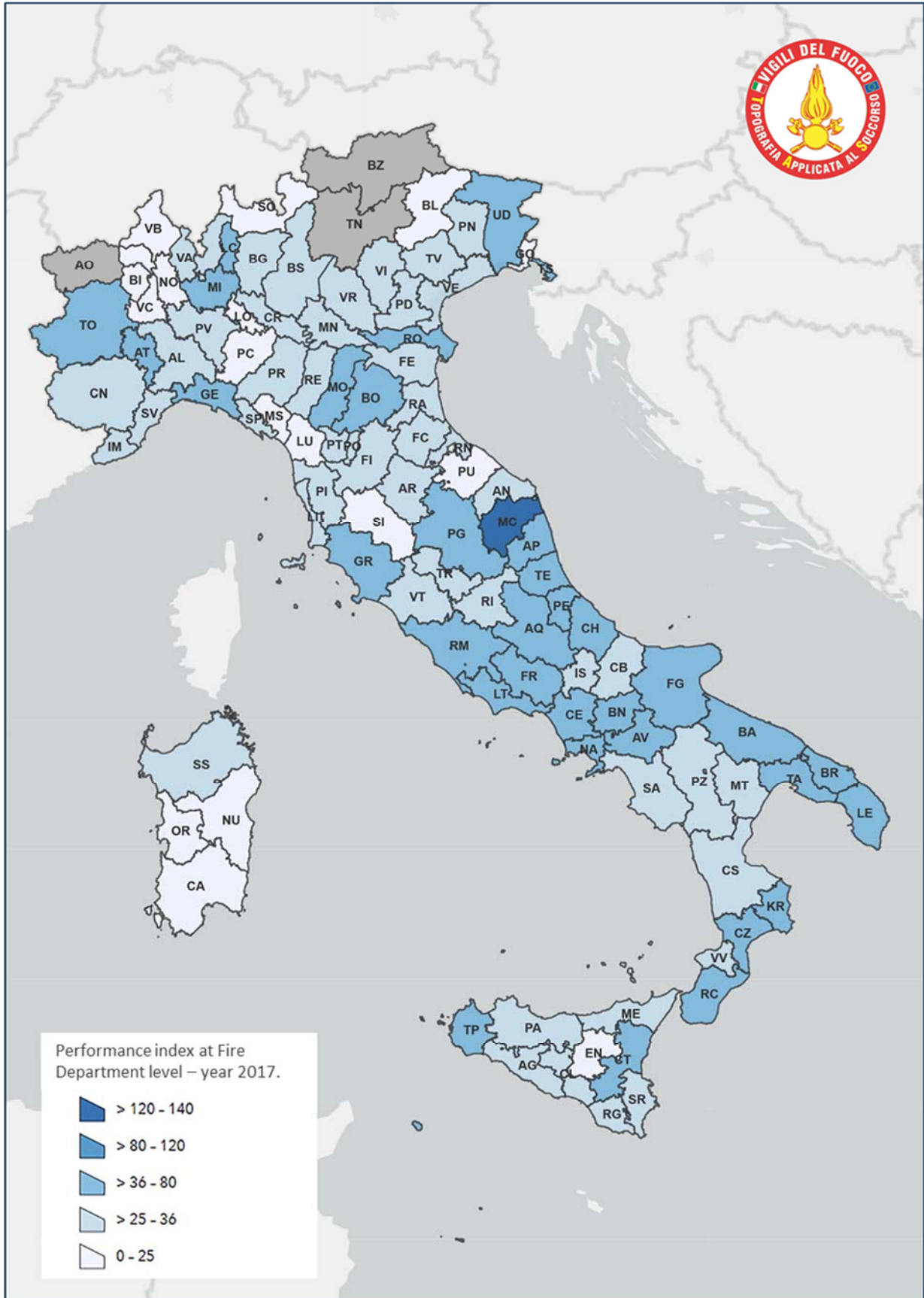
PROVINCIAL FIRE DEPARTMENT	RESCUE EVENTS 2017	UNIT OF UMAN RESOURCE	PERFORMANCE INDEX
CROTONE	5.817	160	36,4
CUNEO	6.191	216	28,7
ENNA	4.122	182	22,6
FERRARA	5.747	220	26,1
FIRENZE	12.659	410	30,9
FOGGIA	11.925	306	39,0
FORLI'	6.976	206	33,9
FROSINONE	8.446	206	41,0
GENOVA	16.050	430	37,3
GORIZIA	3.963	160	24,8
GROSSETO	6.070	118	51,4
IMPERIA	5.331	172	31,0
ISERNIA	4.218	118	35,7
LA SPEZIA	5.151	164	31,4
L'AQUILA	8.855	220	40,3
LATINA	11.286	232	48,6
LECCE	11.965	258	46,4
LECCO	3.658	96	38,1
LIVORNO	6.578	202	32,6
LODI	2.059	88	23,4
LUCCA	5.280	214	24,7
MACERATA	26.580	218	121,9
MANTOVA	4.955	194	25,5
MASSA CARRARA	3.736	156	23,9
MATERA	5.990	182	32,9
MESSINA	9.133	306	29,8
MILANO	38.603	965	40,0
MODENA	10.057	268	37,5
NAPOLI	44.022	901	48,9
NOVARA	3.771	160	23,6
NUORO	6.497	266	24,4
ORISTANO	3.431	160	21,4
PADOVA	7.458	243	30,7
PALERMO	17.749	536	33,1
PARMA	4.994	170	29,4
PAVIA	5.224	198	26,4
PERUGIA	23.244	406	57,3
PESARO URBINO	5.362	236	22,7

Table 43 (2/3) –Distribution by Fire Department of the Performance index for the year 2017

PROVINCIAL FIRE DEPARTMENT	RESCUE EVENTS 2017	UNIT OF UMAN RESOURCE	PERFORMANCE INDEX
PESCARA	7.594	182	41,7
PIACENZA	3.939	190	20,7
PISA	6.496	198	32,8
PISTOIA	5.003	198	25,3
PORDENONE	6.518	190	34,3
POTENZA	7.109	238	29,9
PRATO	4.609	130	35,5
RAGUSA	5.404	156	34,6
RAVENNA	7.111	198	35,9
REGGIO CALABRIA	11.745	306	38,4
REGGIO EMILIA	6.340	200	31,7
RIETI	5.333	148	36,0
RIMINI	4.924	168	29,3
ROMA	65.118	1.437	45,3
ROVIGO	5.347	148	36,1
SALERNO	15.907	464	34,3
SASSARI	10.994	388	28,3
SAVONA	7.558	240	31,5
SIENA	5.339	228	23,4
SIRACUSA	7.665	258	29,7
SONDRIO	3.595	208	17,3
TARANTO	10.354	212	48,8
TERAMO	10.310	160	64,4
TERNI	5.352	160	33,5
TORINO	35.980	653	55,1
TRAPANI	10.856	268	40,5
TREVISO	7.800	284	27,5
TRIESTE	8.422	177	47,6
UDINE	9.615	264	36,4
VARESE	8.693	318	27,3
VENEZIA	15.301	516	29,7
VERBANIA	3.127	126	24,8
VERCELLI	2.947	156	18,9
VERONA	6.864	242	28,4
VIBO VALENTIA	3.935	142	27,7
VICENZA	6.685	266	25,1
VITERBO	6.148	180	34,2
NATIONAL TOTAL:	944.591	26.010	36,3

Table 43 (3/3) – Distribution by Fire Department of the Performance index for the year 2017

The following picture gives a representation of the performance index at Fire Department level for the year 2017.



Picture 59 – Performance index at Fire Department level – year 2017.

5 Fuel consumption

In this chapter data related to fuel consumption for the years 2016 and 2017 are analyzed, referring to rescues' services and to other kind of activities, both for vehicles and boats/ships of the Italian National Fire Brigades.

5.1 Distribution of fuel consumption by Fire Department

In this chapter data related to fuel consumption for the years 2016 and 2017 are analyzed, referring to rescues services and to other kind of activities, both for vehicles and boats/ships of the C.N.VV.F.

FUEL CONSUMPTION

	PROVINCIAL FIRE DEPARTMENT	YEAR 2016				YEAR 2017				% FUEL CONSUMPTION VARIATION FROM 2016 TO 2017			
		RESCUE SERVICES		NO RESCUE SERVICES		RESCUE SERVICES		NO RESCUE SERVICES		RESCUE (PETROL + DIESEL)	NO RESCUE (PETROL + DIESEL)	(ALL SERVICES)	
		PETROL	DIESEL	PETROL	DIESEL	PETROL	DIESEL	PETROL	DIESEL			PETROL	DIESEL
Abruzzo	CHIETI	0	41.992	1.183	42.889	0	66.712	1.342	43.816	58,9%	2,5%	13,4%	30,2%
	L'AQUILA	621	42.146	6.954	57.872	256	55.300	5.488	81.608	29,9%	34,4%	-24,2%	36,9%
	PESCARA	0	131.919	3.233	100.938	0	121.670	5.160	72.115	-7,8%	-25,8%	59,6%	-16,8%
	TERAMO	109	37.905	6.014	40.689	47	16.646	3.558	35.187	-56,1%	-17,0%	-41,1%	-34,0%
Basilicata	MATERA	138	43.746	685	37.861	138	72.509	1.498	47.371	65,5%	26,8%	98,8%	46,9%
	POTENZA	58	63.440	404	43.481	0	104.842	0	52.424	65,1%	19,5%	-100,0%	47,1%
Calabria	CATANZARO	0	58.275	21	66.739	600	84.775	0	56.570	46,5%	-15,3%	2757,1%	13,1%
	COSENZA	1.085	113.191	472	42.844	1.288	158.545	273	42.794	39,9%	-0,6%	0,3%	29,0%
	CROTONE	1.672	43.106	238	35.036	1.842	46.426	0	40.000	7,8%	13,4%	-3,6%	10,6%
	REGGIO C.	209	128.858	3.694	22.633	199	148.847	4.402	23.966	15,5%	7,8%	17,9%	14,1%
	VIBO VALENTIA	0	29.891	81	26.399	788	54.925	0	16.404	86,4%	-38,1%	872,8%	26,7%

(N.P.) = Data not received by Provincial Fire Department --- (N.C.) = Data not calculable.

Table 44 (1/5) – Distribution of fuel consumption for each Fire Department and comparison in the years 2016 – 2017.

FUEL CONSUMPTION

	PROVINCIAL FIRE DEPARTMENT	YEAR 2016				YEAR 2017				% FUEL CONSUMPTION VARIATION FROM 2016 TO 2017			
		RESCUE SERVICES		NO RESCUE SERVICES		RESCUE SERVICES		NO RESCUE SERVICES		RESCUE (PETROL + DIESEL)	NO RESCUE (PETROL + DIESEL)	(ALL SERVICES)	
		PETROL	DIESEL	PETROL	DIESEL	PETROL	DIESEL	PETROL	DIESEL			PETROL	DIESEL
Campania	AVELLINO	1.031	64.590	2.107	31.309	N.P.	N.P.	N.P.	N.P.	N.C.	N.C.	N.C.	N.C.
	BENEVENTO	48	24.331	2.221	73.450	33	45.608	905	71.783	87,2%	✓-3,9%	✓-58,7%	20,1%
	CASERTA	0	65.233	0	65.766	246	82.991	0	82.634	27,6%	25,6%	N.C.	26,4%
	NAPOLI	5	179.873	8.641	196.327	6.329	337.481	1.759	118.073	91,1%	✓-41,5%	✓-6,5%	21,1%
	SALERNO	1.946	152.923	1.381	56.412	1.551	191.473	969	73.274	24,6%	28,5%	✓-24,3%	26,5%
Emilia R.	BOLOGNA	72	39.426	2.666	122.318	7.551	88.908	0	168.819	144,2%	35,1%	175,8%	59,3%
	FERRARA	0	46.921	0	40.702	6.800	52.867	1.090	46.313	27,2%	16,5%	N.C.	13,2%
	FORLI'	0	35.340	1.503	47.791	N.P.	N.P.	N.P.	N.P.	N.C.	N.C.	N.C.	N.C.
	MODENA	53	57.207	2.099	41.374	46	62.743	1.378	46.397	9,7%	9,9%	✓-33,8%	10,7%
	PARMA	780	40.215	120	8.904	745	80.024	768	18.069	97,0%	108,7%	68,1%	99,7%
	PIACENZA	37	35.538	414	34.093	1.103	50.334	0	36.373	44,6%	5,4%	144,6%	24,5%
	RAVENNA	6	52.024	3.438	40.759	52	61.643	4.968	50.789	18,6%	26,2%	45,8%	21,2%
	REGGIO E.	0	41.075	0	21.026	848	50.886	0	31.408	26,0%	49,4%	N.C.	32,5%
RIMINI	950	37.156	2.550	29.152	2.043	39.200	625	37.284	8,2%	19,6%	✓-23,8%	15,3%	
Friuli V.G.	GORIZIA	0	20.575	88	34.450	0	24.570	0	32.015	19,4%	✓-7,3%	✓-100,0%	2,8%
	PORDENONE	15	43.528	781	19.344	11	49.717	1.676	32.704	14,2%	70,8%	111,9%	31,1%
	TRIESTE	1.555	42.699	891	51.264	1.971	36.377	1.505	51.892	✓-13,3%	2,4%	42,1%	✓-6,1%
	UDINE	1.585	81.021	2.605	65.747	2.275	101.278	3.027	59.568	25,4%	✓-8,4%	26,5%	9,6%
Lazio	FROSINONE	0	52.195	0	52.428	1.994	108.114	0	31.698	111,0%	✓-39,5%	N.C.	33,6%
	LATINA	1.525	60.982	0	63.644	0	78.758	740	66.291	26,0%	5,3%	✓-51,5%	16,4%
	RIETI	535	44.623	2.603	42.637	557	55.550	4.764	46.593	24,2%	13,5%	69,6%	17,1%
	ROMA	1.258	252.570	6.709	366.814	7.797	554.013	5.859	187.644	121,3%	✓-48,2%	71,4%	19,7%
	VITERBO	437	53.186	3.536	31.270	4.996	77.144	0	15.312	53,2%	✓-56,0%	25,7%	9,5%

(N.P.) = Data not received by Provincial Fire Department --- (N.C.) = Data not calculable.

Table 44 (2/5) –Distribution of fuel consumption for each Fire Department and comparison in the years 2016 – 2017.

FUEL CONSUMPTION

	PROVINCIAL FIRE DEPARTMENT	YEAR 2016				YEAR 2017				% FUEL CONSUMPTION VARIATION FROM 2016 TO 2017			
		RESCUE SERVICES		NO RESCUE SERVICES		RESCUE SERVICES		NO RESCUE SERVICES		RESCUE (PETROL + DIESEL)	NO RESCUE (PETROL + DIESEL)	(ALL SERVICES)	
		PETROL	DIESEL	PETROL	DIESEL	PETROL	DIESEL	PETROL	DIESEL			PETROL	DIESEL
Liguria	GENOVA	3	49.721	6.236	103.968	5.290	112.034	3.642	66.220	136,0%	✓-36,6%	43,2%	16,0%
	IMPERIA	391	28.378	2.537	25.470	781	34.549	2.188	32.643	22,8%	24,4%	1,4%	24,8%
	LA SPEZIA	1.000	58.230	2.644	8.760	N.P.	N.P.	N.P.	N.P.	N.C.	N.C.	N.C.	N.C.
	SAVONA	896	52.563	5.464	50.862	435	58.394	5.305	52.269	10,0%	2,2%	✓-9,7%	7,0%
Lombardia	BERGAMO	3.175	107.997	283	15.099	3.358	115.385	377	10.885	6,8%	✓-26,8%	8,0%	2,6%
	BRESCIA	69	35.748	12.200	45.596	N.P.	N.P.	N.P.	N.P.	N.C.	N.C.	N.C.	N.C.
	COMO	86	41.927	869	26.740	3.312	61.534	887	28.372	54,3%	6,0%	339,7%	30,9%
	CREMONA	0	19.350	186	32.783	6	22.389	759	30.030	15,7%	✓-6,6%	311,3%	0,5%
	LECCO	993	32.913	1.037	13.146	1.110	37.685	1.412	16.384	14,4%	25,5%	24,2%	17,4%
	LODI	8	25.988	973	16.971	0	25.285	830	17.297	✓-2,7%	1,0%	✓-15,4%	✓-0,9%
	MANTOVA	2.149	55.466	539	33.965	1.717	55.566	1.643	28.624	✓-0,6%	✓-12,3%	25,0%	✓-5,9%
	MILANO	N.P.	N.P.	N.P.	N.P.	N.P.	N.P.	N.P.	N.P.	N.C.	N.C.	N.C.	N.C.
	PAVIA	436	51.585	1.251	43.152	578	67.445	1.236	44.836	30,8%	3,8%	7,5%	18,5%
	SONDRIO	263	26.625	2.104	40.699	383	29.644	1.856	44.678	11,7%	8,7%	✓-5,4%	10,4%
VARESE	299	152.608	6.502	83.937	494	167.580	6.294	98.661	9,9%	16,1%	✓-0,2%	12,6%	
Marche	ANCONA	322	63.173	4.318	87.030	1.424	67.712	3.766	86.647	8,9%	✓-1,0%	11,9%	2,8%
	ASCOLI P.	161	44.638	5.286	128.170	7	52.211	4.880	323.940	16,6%	146,4%	✓-10,3%	117,7%
	MACERATA	450	68.226	4.860	29.543	391	79.027	6.906	37.115	15,6%	28,0%	37,4%	18,8%
	PESARO U.	19	43.980	1.121	46.353	8	46.821	1.225	47.897	6,4%	3,5%	8,2%	4,9%
Molise	CAMPOBASSO	0	29.041	1.364	43.805	0	50.972	2.195	50.619	75,5%	16,9%	60,9%	39,5%
	ISERNIA	717	27.251	0	20.917	N.P.	N.P.	N.P.	N.P.	N.C.	N.C.	N.C.	N.C.

(N.P.) = Data not received by Provincial Fire Department --- (N.C.) = Data not calculable.

Table 44 (3/5) – Distribution of fuel consumption for each Fire Department and comparison in the years 2016 – 2017.

FUEL CONSUMPTION

	PROVINCIAL FIRE DEPARTMENT	YEAR 2016				YEAR 2017				% FUEL CONSUMPTION VARIATION FROM 2016 TO 2017			
		RESCUE SERVICES		NO RESCUE SERVICES		RESCUE SERVICES		NO RESCUE SERVICES		RESCUE (PETROL + DIESEL)	NO RESCUE (PETROL + DIESEL)	(ALL SERVICES)	
		PETROL	DIESEL	PETROL	DIESEL	PETROL	DIESEL	PETROL	DIESEL			PETROL	DIESEL
Piemonte	ALESSANDRIA	13	51.050	3.296	35.832	0	89.040	4.743	54.466	74,4%	51,3%	43,3%	65,2%
	ASTI	38	20.579	936	13.146	50	23.114	1.069	12.928	12,4%	-0,6%	14,9%	6,9%
	BIELLA	30	18.789	823	13.893	0	18.145	636	14.867	-3,6%	5,3%	-25,4%	1,0%
	CUNEO	408	47.497	1.632	64.247	2.166	77.947	1.436	58.326	67,2%	-9,3%	76,6%	22,0%
	NOVARA	0	35.917	0	18.220	922	40.551	0	17.283	15,5%	-5,1%	N.C.	6,8%
	TORINO	444	110.169	9.607	238.538	502	124.994	13.478	284.070	13,5%	19,9%	39,1%	17,3%
	VERBANIA	424	24.451	1.581	20.981	236	30.437	1.806	21.324	23,3%	2,5%	1,8%	13,9%
	VERCELLI	0	21.959	780	33.577	0	23.426	684	31.732	6,7%	-5,6%	-12,3%	-0,7%
Puglia	BARI	N.P.	N.P.	N.P.	N.P.	2.194	158.073	5.142	86.031	N.C.	N.C.	N.C.	N.C.
	BRINDISI	2.776	72.818	2.346	40.002	N.P.	N.P.	N.P.	N.P.	N.C.	N.C.	N.C.	N.C.
	FOGGIA	1.220	89.017	1.619	63.051	1.281	132.595	1.874	56.907	48,4%	-9,1%	11,1%	24,6%
	LECCE	N.P.	N.P.	N.P.	N.P.	111	128.232	267	44.408	N.C.	N.C.	N.C.	N.C.
	TARANTO	2.245	84.948	0	39.311	2.245	92.802	0	39.837	9,0%	1,3%	0,0%	6,7%
Sardegna	CAGLIARI	N.P.	N.P.	N.P.	N.P.	11.408	155.280	0	57.071	N.C.	N.C.	N.C.	N.C.
	NUORO	1.293	92.682	2.178	26.606	1.585	100.609	1.810	25.143	8,7%	-6,4%	-2,2%	5,4%
	ORISTANO	N.P.	N.P.	N.P.	N.P.	600	49.000	400	3.000	N.C.	N.C.	N.C.	N.C.
	SASSARI	N.P.	N.P.	N.P.	N.P.	322	65.120	4.441	115.968	N.C.	N.C.	N.C.	N.C.
Sicilia	AGRIGENTO	10	65.114	740	44.370	250	58.928	155	41.700	-9,1%	-7,2%	-46,0%	-8,1%
	CALTANISSETTA	0	50.302	0	30.277	438	50.709	361	29.538	1,7%	-1,2%	N.C.	-0,4%
	CATANIA	N.P.	N.P.	N.P.	N.P.	2.866	317.275	1.721	30.260	N.C.	N.C.	N.C.	N.C.
	ENNA	82	40.459	538	30.396	726	53.000	81	33.705	32,5%	9,2%	30,2%	22,4%
	MESSINA	2.064	98.746	0	27.642	3.251	157.944	0	33.812	59,9%	22,3%	57,5%	51,7%
	PALERMO	1.821	111.357	273	62.500	2.195	83.591	57	41.327	-24,2%	-34,1%	7,5%	-28,1%
	RAGUSA	7	42.584	463	45.835	7	42.584	463	45.835	0,0%	0,0%	0,0%	0,0%
	SIRACUSA	0	24.261	0	32.425	0	54.067	726	44.187	122,9%	38,5%	N.C.	73,3%
TRAPANI	348	98.729	2.507	88.302	1.338	112.157	2.382	86.956	14,6%	-1,6%	30,3%	6,5%	

(N.P.) = Data not received by Provincial Fire Department --- (N.C.) = Data not calculable.

Table 44 (4/5) – Distribution of fuel consumption for each Fire Department and comparison in the years 2016 – 2017.

FUEL CONSUMPTION

PROVINCIAL FIRE DEPARTMENT	YEAR 2016				YEAR 2017				% FUEL CONSUMPTION VARIATION FROM 2016 TO 2017				
	RESCUE SERVICES		NO RESCUE SERVICES		RESCUE SERVICES		NO RESCUE SERVICES		RESCUE (PETROL + DIESEL)	NO RESCUE (PETROL + DIESEL)	(ALL SERVICES)		
	PETROL	DIESEL	PETROL	DIESEL	PETROL	DIESEL	PETROL	DIESEL			PETROL	DIESEL	
Toscana	AREZZO	0	47.010	297	34.049	147	50.418	0	37.001	7,6%	7,7%	-50,5%	7,8%
	FIRENZE	4.982	149.288	2.782	22.074	0	133.542	2.894	37.599	-13,4%	62,9%	-62,7%	-0,1%
	GROSSETO	0	49.340	6.937	49.545	N.P.	N.P.	N.P.	N.P.	N.C.	N.C.	N.C.	N.C.
	LIVORNO	481	68.682	3.515	9.822	2.539	53.072	2.314	13.271	-19,6%	16,9%	21,4%	-15,5%
	LUCCA	1	40.193	586	28.460	0	46.136	612	33.092	14,8%	16,0%	4,3%	15,4%
	MASSA C.	N.P.	N.P.	N.P.	N.P.	0	15.477	3.866	47.114	N.C.	N.C.	N.C.	N.C.
	PISA	N.P.	N.P.	N.P.	N.P.	2.220	59.384	1.028	42.622	N.C.	N.C.	N.C.	N.C.
	PISTOIA	0	21.783	1.991	38.815	25	23.770	2.124	44.913	9,2%	15,3%	7,9%	13,3%
	PRATO	309	35.837	2.273	19.383	237	37.449	2.389	18.777	4,3%	-2,3%	1,7%	1,8%
	SIENA	268	57.151	927	30.938	323	63.978	850	35.190	12,0%	13,1%	-1,8%	12,6%
Umbria	PERUGIA	1.452	130.458	2.060	57.045	N.P.	N.P.	N.P.	N.P.	N.C.	N.C.	N.C.	N.C.
	TERNI	177	39.540	1.232	37.728	N.P.	N.P.	N.P.	N.P.	N.C.	N.C.	N.C.	N.C.
Veneto	BELLUNO	1.130	56.920	1.940	60.278	1.256	66.836	2.285	63.755	17,3%	6,1%	15,3%	11,4%
	PADOVA	191	59.303	3.420	34.858	1.957	97.099	0	0	66,5%	-100,0%	-45,8%	3,1%
	ROVIGO	72	42.177	1.572	25.655	100	42.830	1.077	20.208	1,6%	-21,8%	-28,4%	-7,1%
	TREVISO	904	77.576	4.066	49.306	1.145	87.086	4.458	48.886	12,4%	-0,1%	12,7%	7,2%
	VENEZIA	461	79.712	3.320	76.238	N.P.	N.P.	N.P.	N.P.	N.C.	N.C.	N.C.	N.C.
	VERONA	379	55.276	5.449	94.375	950	67.866	4.407	89.942	23,6%	-5,5%	-8,1%	5,5%
	VICENZA	154	60.024	4.351	35.502	193	58.612	54.443	36.578	-2,3%	128,4%	1112,8%	-0,4%
NAZIONALE TOTAL:	51.351	5.544.806	203.143	4.624.550	117.185	7.388.284	223.634	4.713.934	34,1%	2,3%	33,9%	19,0%	

(N.P.) = Data not received by Provincial Fire Department --- (N.C.) = Data not calculable.

Table 44 (5/5) – Distribution of fuel consumption for each Fire Department and comparison in the years 2016 - 2017

5.2 Fuel consumption for urgent technical rescue related to amount of interventions

In this paragraph the fuel consumption for the years 2016 and 2017 registered for the activities of urgente technical rescue by the Fire Departments has been reported.

On the base of that measurement and of the number of interventions conducted in each fire department the ratio “liter of fuel for each intervention of rescue” has been calculated. The most significant factor that influences this ratio is the Percentage of fires on the global number of interventions

An index of fuel consumption (ICC) has been defined

$$ICC = \frac{\textit{litres of fuel used for each rescue intervention}}{\% \textit{ of intervention related to fire on the whole amount occurred in the Fire Dept.}}$$

Obviously there are other factors that can affect this indicator, as by example the relevant consumptions registered in fire stations of harbours and airports, where the specialized vehicles feature high rates of consumption and simultaneously a little number of interventions/year. This causes an increase of the “ICC” indicator, specially for what regards little fire Departments which hosts relevant harbour and airport fire stations

In the following table a format with histogram has been applied in order to make possible a quick confrontation between the different Fire Departments

	PROVINCIAL FIRE DEPARTMENT	FUEL CONSUMPTION - YEAR 2016					FUEL CONSUMPTION - YEAR 2017				
		RESCUE (liters)	No RESCUE EVENTS	FUEL LITERS CONSUMED FOR EVERY RESCUE EVENT	% FIRES AND EXPLOSIONS EVENTS COMPARED TO TOTAL RESCUE EVENTS	ICC	RESCUE (liters)	No RESCUE EVENTS	FUEL LITERS CONSUMED FOR EVERY RESCUE EVENT	% FIRES AND EXPLOSIONS EVENTS COMPARED TO TOTAL RESCUE EVENTS	ICC
Abruzzo	CHIETI	41.992	5.782	7,3	20,6%	35,3	66.712	7.794	8,6	26,1%	32,8
	L'AQUILA	42.767	7.113	6,0	16,4%	36,7	55.556	8.857	6,3	27,4%	22,9
	PESCARA	131.919	6.828	19,3	17,0%	113,4	121.670	8.498	14,3	24,0%	59,7
	TERAMO	38.014	10.831	3,5	7,7%	45,7	16.693	10.310	1,6	13,3%	12,2
Basilicata	MATERA	43.884	4.126	10,6	41,5%	25,6	72.647	5.990	12,1	53,3%	22,8
	POTENZA	63.498	4.524	14,0	30,3%	46,3	104.842	7.109	14,7	49,1%	30,0
Calabria	CATANZARO	58.275	8.884	6,6	40,5%	16,2	85.375	9.728	8,8	49,7%	17,7
	COSENZA	114.276	10.256	11,1	45,1%	24,7	159.833	11.257	14,2	60,0%	23,7
	CROTONE	44.778	5.488	8,2	46,4%	17,6	48.268	6.383	7,6	50,3%	15,0
	REGGIO C.	129.067	9.837	13,1	43,7%	30,0	149.046	11.876	12,6	53,2%	23,6
	VIBO VALENTIA	29.891	4.155	7,2	39,9%	18,1	55.713	4.845	11,5	56,6%	20,3
Campania	AVELLINO	65.621	6.151	10,7	22,5%	47,5	N.P.	8.558	N.C.	41,8%	N.C.
	BENEVENTO	24.379	5.694	4,3	23,9%	17,9	45.641	7.814	5,8	46,9%	12,4
	CASERTA	65.233	9.333	7,0	45,8%	15,3	83.237	11.866	7,0	57,0%	12,3
	NAPOLI	179.878	37.178	4,8	30,6%	15,8	343.810	44.260	7,8	32,9%	23,6
	SALERNO	154.869	15.188	10,2	37,4%	27,2	193.024	16.050	12,0	47,4%	25,4
Emilia R.	BOLOGNA	39.498	16.848	2,3	22,5%	10,4	96.459	20.106	4,8	25,1%	19,1
	FERRARA	46.921	5.583	8,4	20,7%	40,6	59.667	6.505	9,2	21,8%	42,1
	FORLI'	35.340	6.370	5,5	19,2%	28,9	N.P.	7.226	N.C.	23,9%	N.C.
	MODENA	57.260	9.861	5,8	23,7%	24,5	62.789	10.743	5,8	29,0%	20,2
	PARMA	40.995	4.222	9,7	31,2%	31,1	80.769	5.312	15,2	31,9%	47,6
	PIACENZA	35.575	3.115	11,4	28,5%	40,1	51.437	3.939	13,1	32,5%	40,2
	RAVENNA	52.030	6.286	8,3	17,5%	47,4	61.695	7.125	8,7	19,9%	43,5
	REGGIO E.	41.075	5.626	7,3	29,3%	25,0	51.734	6.340	8,2	31,5%	25,9
	RIMINI	38.106	4.455	8,6	19,8%	43,2	41.243	4.955	8,3	25,1%	33,1

(N.P.) = Data not received by Provincial Fire Department --- (N.C.) = Data not calculable.

Table 45 (1/4) – Fuel consumption for rescue intervention splitted by Fire Department, year 2016 and 2017.

	PROVINCIAL FIRE DEPARTMENT	FUEL CONSUMPTION - YEAR 2016					FUEL CONSUMPTION - YEAR 2017				
		RESCUE (liters)	No RESCUE EVENTS	FUEL LITERS CONSUMED FOR EVERY RESCUE EVENT	% FIRES AND EXPLOSIONS EVENTS COMPARED TO TOTAL RESCUE EVENTS	ICC	RESCUE (liters)	No RESCUE EVENTS	FUEL LITERS CONSUMED FOR EVERY RESCUE EVENT	% FIRES AND EXPLOSIONS EVENTS COMPARED TO TOTAL RESCUE EVENTS	ICC
Friuli V.G.	GORIZIA	20.575	3.491	5,9	13,2%	44,6	24.570	4.052	6,1	12,9%	47,2
	PORDENONE	43.543	5.718	7,6	18,4%	41,4	49.728	6.518	7,6	17,0%	44,9
	TRIESTE	44.254	6.368	6,9	13,0%	53,6	38.348	8.621	4,4	10,5%	42,6
	UDINE	82.606	9.254	8,9	22,5%	39,6	103.553	11.319	9,1	21,0%	43,5
Lazio	FROSINONE	52.195	7.243	7,2	30,7%	23,5	110.108	8.446	13,0	49,6%	26,3
	LATINA	62.507	9.546	6,5	41,2%	15,9	78.758	11.306	7,0	55,6%	12,5
	RIETI	45.158	6.097	7,4	15,2%	48,9	56.107	5.333	10,5	34,1%	30,9
	ROMA	253.828	65.923	3,9	29,0%	13,3	561.810	66.543	8,4	37,0%	22,8
	VITERBO	53.623	6.084	8,8	19,8%	44,6	82.140	6.191	13,3	33,7%	39,4
Liguria	GENOVA	49.724	14.673	3,4	12,8%	26,5	117.324	16.975	6,9	16,5%	41,9
	IMPERIA	28.769	4.848	5,9	14,5%	40,9	35.330	5.331	6,6	21,1%	31,5
	LA SPEZIA	59.230	4.712	12,6	16,1%	78,2	N.P.	5.356	N.C.	24,4%	N.C.
	SAVONA	53.459	6.579	8,1	12,4%	65,6	58.829	7.708	7,6	17,9%	42,8
Lombardia	BERGAMO	111.172	8.828	12,6	24,4%	51,5	118.743	8.169	14,5	30,3%	47,9
	BRESCIA	35.817	10.980	3,3	31,0%	10,5	N.P.	10.701	N.C.	33,3%	N.C.
	COMO	42.013	6.183	6,8	24,2%	28,1	64.846	6.477	10,0	30,4%	33,0
	CREMONA	19.350	2.981	6,5	23,3%	27,9	22.395	3.420	6,5	22,9%	28,6
	LECCO	33.906	3.317	10,2	22,9%	44,6	38.795	3.658	10,6	28,1%	37,7
	LODI	25.996	3.177	8,2	24,3%	33,7	25.285	3.005	8,4	30,1%	27,9
	MANTOVA	57.615	4.981	11,6	22,9%	50,5	57.283	4.955	11,6	26,7%	43,3
	MILANO	N.P.	41.587	N.C.	23,9%	N.C.	N.P.	42.781	N.C.	26,2%	N.C.
	PAVIA	52.021	5.647	9,2	26,8%	34,4	68.023	6.555	10,4	35,2%	29,5
	SONDRIO	26.888	3.346	8,0	21,6%	37,2	30.027	3.960	7,6	26,5%	28,6
VARESE	152.907	8.140	18,8	21,6%	87,0	168.074	9.126	18,4	26,2%	70,2	

(N.P.) = Data not received by Provincial Fire Department --- (N.C.) = Data not calculable.

Table 45 (2/4) – Fuel consumption for rescue intervention splitted by Fire Department, year 2016 and 2017.

	PROVINCIAL FIRE DEPARTMENT	FUEL CONSUMPTION - YEAR 2016					FUEL CONSUMPTION - YEAR 2017				
		RESCUE (liters)	No RESCUE EVENTS	FUEL LITERS CONSUMED FOR EVERY RESCUE EVENT	% FIRES AND EXPLOSIONS EVENTS COMPARED TO TOTAL RESCUE EVENTS	ICC	RESCUE (liters)	No RESCUE EVENTS	FUEL LITERS CONSUMED FOR EVERY RESCUE EVENT	% FIRES AND EXPLOSIONS EVENTS COMPARED TO TOTAL RESCUE EVENTS	ICC
Marche	ANCONA	63.495	11.407	5,6	11,5%	48,6	69.136	8.398	8,2	20,8%	39,6
	ASCOLI P.	44.799	22.874	2,0	4,2%	46,3	52.218	15.967	3,3	9,0%	36,1
	MACERATA	68.676	35.914	1,9	2,2%	88,8	79.418	26.580	3,0	4,1%	73,2
	PESARO U.	43.999	6.064	7,3	16,0%	45,5	46.829	5.362	8,7	24,0%	36,4
Molise	CAMPOBASSO	29.041	3.686	7,9	24,3%	32,4	50.972	5.563	9,2	34,2%	26,8
	ISERNIA	27.968	2.872	9,7	18,2%	53,6	N.P.	4.218	N.C.	29,1%	N.C.
Piemonte	ALESSANDRIA	51.063	7.474	6,8	23,8%	28,7	89.040	8.004	11,1	26,9%	41,4
	ASTI	20.617	3.775	5,5	26,5%	20,6	23.164	3.876	6,0	29,0%	20,6
	BIELLA	18.819	2.608	7,2	19,4%	37,1	18.145	2.909	6,2	22,6%	27,7
	CUNEO	47.905	8.950	5,4	17,6%	30,4	80.113	9.753	8,2	29,3%	28,1
	NOVARA	35.917	4.342	8,3	18,1%	45,6	41.473	4.201	9,9	22,4%	44,0
	TORINO	110.613	33.450	3,3	26,7%	12,4	125.496	37.473	3,3	31,9%	10,5
	VERBANIA	24.875	4.043	6,2	15,2%	40,5	30.673	4.433	6,9	18,0%	38,4
VERCELLI	21.959	3.119	7,0	16,8%	41,8	23.426	3.419	6,9	21,1%	32,4	
Puglia	BARI	N.P.	15.252	N.C.	42,0%	N.C.	160.267	18.769	8,5	50,9%	16,8
	BRINDISI	75.594	6.645	11,4	52,4%	21,7	N.P.	7.852	N.C.	57,6%	N.C.
	FOGGIA	90.237	9.766	9,2	46,5%	19,9	133.876	11.925	11,2	55,3%	20,3
	LECCE	N.P.	11.372	N.C.	65,3%	N.C.	128.343	12.963	9,9	66,8%	14,8
	TARANTO	87.193	8.785	9,9	47,6%	20,9	95.047	10.418	9,1	49,3%	18,5
Sardegna	CAGLIARI	N.P.	10.250	N.C.	35,3%	N.C.	166.688	11.134	15,0	37,1%	40,3
	NUORO	93.975	5.528	17,0	35,8%	47,4	102.194	6.497	15,7	33,0%	47,7
	ORISTANO	N.P.	3.160	N.C.	38,6%	N.C.	49.600	3.431	14,5	40,8%	35,4
	SASSARI	N.P.	10.856	N.C.	20,9%	N.C.	65.442	11.625	5,6	21,4%	26,3

(N.P.) = Data not received by Provincial Fire Department --- (N.C.) = Data not calculable.

Table 45 (3/4) – Fuel consumption for rescue intervention splitted by Fire Department, year 2016 and 2017.

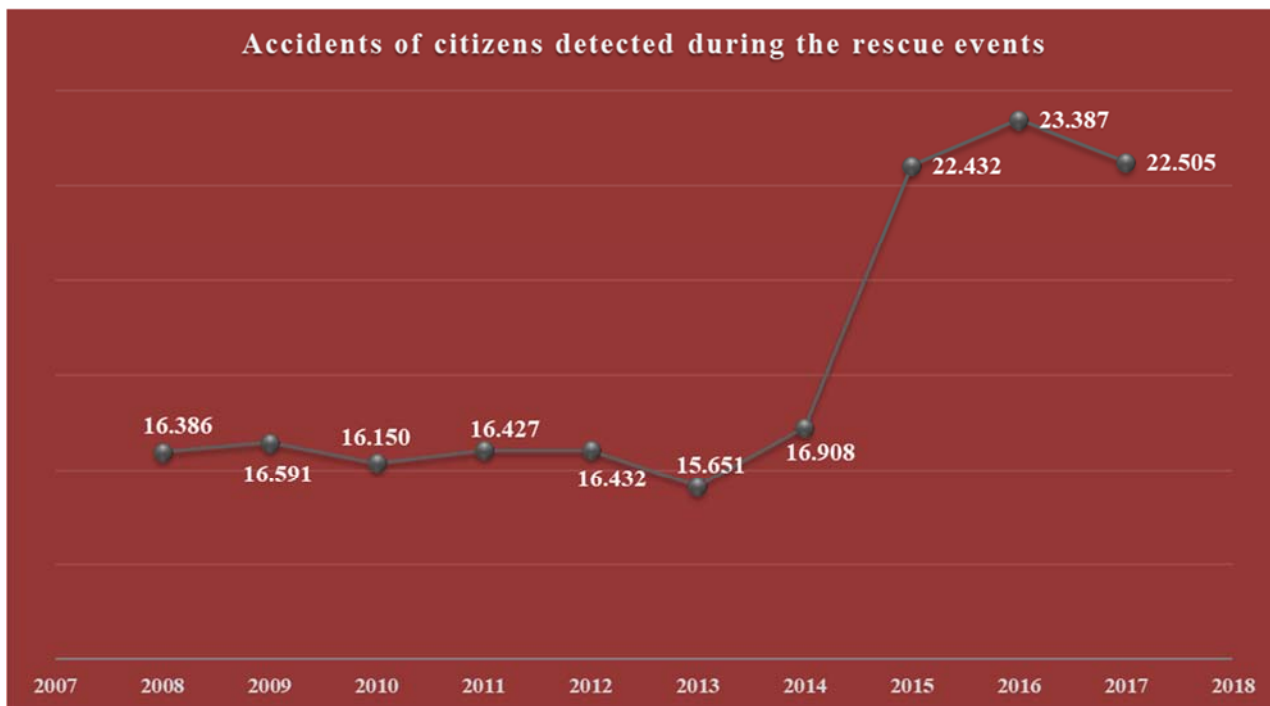
PROVINCIAL FIRE DEPARTMENT	FUEL CONSUMPTION - YEAR 2016					FUEL CONSUMPTION - YEAR 2017					
	RESCUE (liters)	No RESCUE EVENTS	FUEL LITERS CONSUMED FOR EVERY RESCUE EVENT	% FIRES AND EXPLOSIONS EVENTS COMPARED TO TOTAL RESCUE EVENTS	ICC	RESCUE (liters)	No RESCUE EVENTS	FUEL LITERS CONSUMED FOR EVERY RESCUE EVENT	% FIRES AND EXPLOSIONS EVENTS COMPARED TO TOTAL RESCUE EVENTS	ICC	
Sicilia	AGRIGENTO	65.124	7.119	9,1	55,3%	16,5	59.178	7.329	8,1	55,4%	14,6
	CALTANISSETTA	50.302	6.253	8,0	46,2%	17,4	51.147	7.506	6,8	48,6%	14,0
	CATANIA	N.P.	16.306	N.C.	42,8%	N.C.	320.141	17.460	18,3	46,8%	39,2
	ENNA	40.541	3.555	11,4	48,4%	23,6	53.726	4.385	12,3	50,6%	24,2
	MESSINA	100.810	9.186	11,0	40,7%	26,9	161.195	10.467	15,4	46,9%	32,8
	PALERMO	113.178	16.927	6,7	41,5%	16,1	85.786	17.915	4,8	41,5%	11,5
	RAGUSA	42.591	4.682	9,1	40,1%	22,7	42.591	5.428	7,8	39,5%	19,9
	SIRACUSA	24.261	7.487	3,2	51,9%	6,2	54.067	7.975	6,8	56,7%	12,0
	TRAPANI	99.077	11.081	8,9	59,7%	15,0	113.495	11.182	10,1	56,1%	18,1
Toscana	AREZZO	47.010	6.408	7,3	22,0%	33,3	50.565	6.595	7,7	30,0%	25,6
	FIRENZE	154.270	12.559	12,3	21,6%	56,9	133.542	13.618	9,8	26,0%	37,8
	GROSSETO	49.340	5.451	9,1	23,9%	37,9	N.P.	6.082	N.C.	30,9%	N.C.
	LIVORNO	69.163	6.090	11,4	18,7%	60,8	55.611	6.730	8,3	19,9%	41,5
	LUCCA	40.194	5.087	7,9	23,6%	33,5	46.136	5.280	8,7	27,0%	32,4
	MASSA C.	N.P.	3.326	N.C.	21,9%	N.C.	15.477	3.736	4,1	22,4%	18,5
	PISA	N.P.	6.894	N.C.	20,5%	N.C.	61.604	7.172	8,6	24,1%	35,7
	PISTOIA	21.783	4.523	4,8	24,7%	19,5	23.795	5.003	4,8	30,5%	15,6
	PRATO	36.146	4.383	8,2	18,2%	45,4	37.686	4.609	8,2	19,0%	43,0
	SIENA	57.419	4.893	11,7	18,2%	64,6	64.301	5.339	12,0	27,0%	44,7
Umbria	PERUGIA	131.910	28.637	4,6	6,9%	67,0	N.P.	23.244	N.C.	14,7%	N.C.
	TERNI	39.717	5.833	6,8	12,8%	53,3	N.P.	5.352	N.C.	23,3%	N.C.
Veneto	BELLUNO	58.050	5.933	9,8	16,9%	57,9	68.092	6.476	10,5	17,8%	59,2
	PADOVA	59.494	7.840	7,6	26,9%	28,2	99.056	7.458	13,3	27,9%	47,6
	ROVIGO	42.249	3.885	10,9	24,5%	44,5	42.930	5.347	8,0	19,5%	41,2
	TREVISO	78.480	7.196	10,9	26,3%	41,4	88.231	8.242	10,7	26,1%	41,0
	VENEZIA	80.173	14.593	5,5	17,9%	30,6	N.P.	16.182	N.C.	17,7%	N.C.
	VERONA	55.655	6.778	8,2	27,0%	30,4	68.816	7.113	9,7	31,2%	31,0
	VICENZA	60.178	7.074	8,5	27,3%	31,1	58.805	6.910	8,5	31,9%	26,7
NAZIONALE AVERAGE:			6,9	26,5%	22,8			8,8	32,8%	23,0	

(N.P.) = Data not received by Provincial Fire Department --- (N.C.) = Data not calculable.

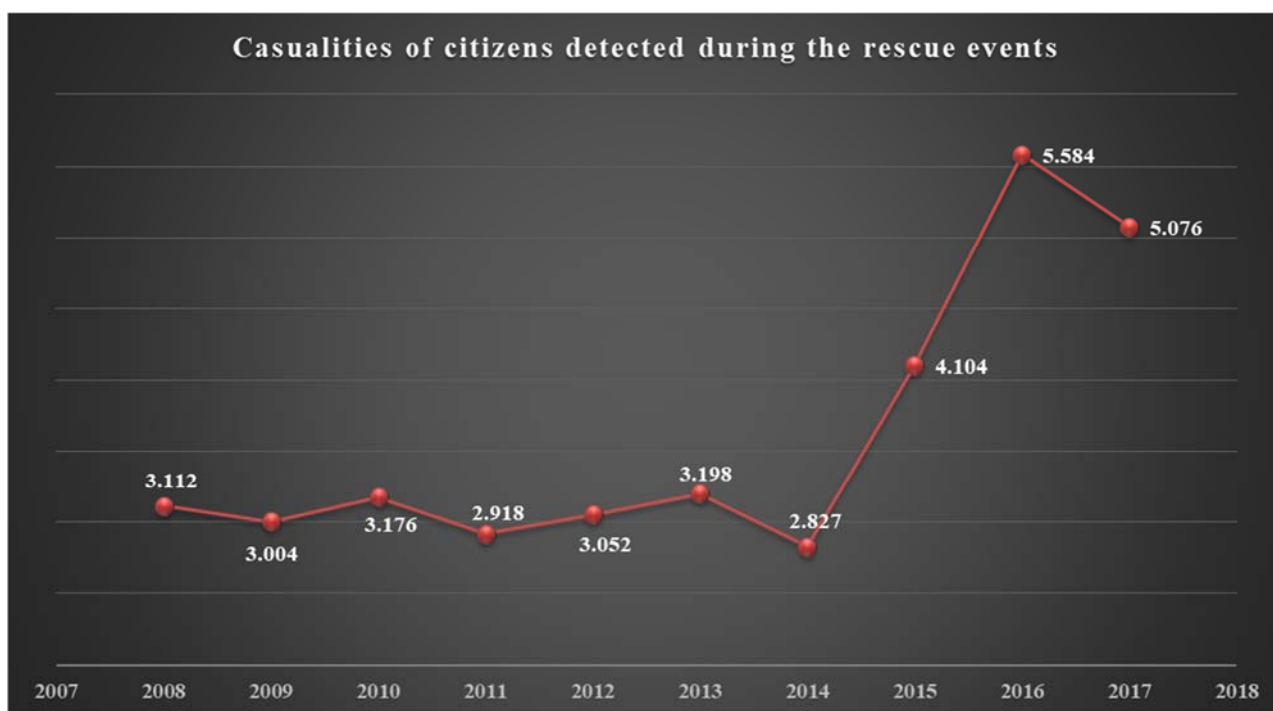
Table 45 (4/4) – Fuel consumption for rescue intervention splitted by Fire Department ,year 2016 and 2017.

6 Victims and injured detected during the rescue events

In this chapter data regarding the period 2008-2017 are reported, concerning accidents and deaths occurred to civilians during rescue intervention of technical urgency. It is pointed out that the data are those directly detected by the firefighters. So possible follows – up are not considered.



Picture 60 – Accidents of civilians registered during rescue interventions – Period 2008-2017



Picture 61 – Victims of civilians registered in the period 2008 – 2017, during rescue operations

6.1 Accidents and victims at national level split by type of intervention

In the following table, data concerning accidents occurred to civilians during operations, are reported splitted by type of intervention.

TYPE OF RESCUE EVENT	YEAR										AVERAGE ACCIDENTS OF CITIZENS FOR YEAR	AVERAGE % DISTRIBUTION BY TYPE
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017		
Water	402	660	554	324	260	194	698	77	14	12	319,5	1,7%
Aircraft	112	101	284	620	271	915	106	495	218	109	323,1	1,8%
Unstable Trees	0	0	0	0	0	0	2	5	29	31	6,7	0,0%
Doors and Windows Openings	515	489	572	471	621	474	536	362	214	200	445,4	2,4%
Lift malfunction	1.954	1.889	1.790	1.964	1.954	1.842	1.649	1.007	137	42	1.422,8	7,8%
Reclamation from Insects	0	0	0	0	0	0	1	5	8	10	2,4	0,0%
Gas leak	87	72	102	74	114	90	66	178	180	185	114,8	0,6%
Fires and Explosions	920	830	1.030	857	1.374	691	955	1.263	1.609	1.904	1.143,3	6,3%
Road accidents	3.749	3.640	3.511	3.336	2.822	3.114	3.804	8.792	13.226	12.849	5.884,3	32,2%
Harbours	0	1	4	5	1	2	16	22	74	73	19,8	0,1%
Recoveries	43	39	53	39	73	24	49	40	23	30	41,3	0,2%
Rescue of Animals	18	19	20	8	8	5	7	7	6	1	9,9	0,1%
Rescue of person	8.045	8.060	7.560	8.201	7.950	7.621	8.437	8.478	6.597	5.892	7.684,1	42,0%
Safety of buildings and Structures	72	227	74	92	51	41	102	113	163	156	109,1	0,6%
Others	469	564	596	436	933	638	480	1.588	889	1.011	760,4	4,2%
Total accidents of citizens for year	16.386	16.591	16.150	16.427	16.432	15.651	16.908	22.432	23.387	22.505	18.287	100,0%

Table 46 – Distribution, at national level, of accidents, by type intervention . Period 2008 - 2017

In the following table, data concerning deaths of civilians during operations, splitted by type of interventions, are reported at national level, for the period 2008-2017

TYPE OF RESCUE EVENT	YEAR										AVERAGE CASUALITIES OF CITIZENS FOR YEAR	AVERAGE % DISTRIBUTION BY TYPE
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017		
Water	18	15	32	23	31	13	22	25	6	4	18,9	0,5%
Aircraft	30	28	29	89	80	93	35	56	88	38	56,6	1,6%
Unstable Trees	0	0	0	0	0	0	0	1	0	0	0,1	0,0%
Doors and Windows Openings	102	77	138	82	141	77	59	142	167	152	113,7	3,2%
Lift malfunction	14	22	16	10	38	7	3	23	0	3	13,6	0,4%
Reclamation from Insects	0	0	0	0	0	0	0	0	2	0	0,2	0,0%
Gas leak	19	15	27	12	23	6	6	27	21	23	17,9	0,5%
Fires and Explosions	181	127	264	177	258	196	141	222	296	314	217,6	6,0%
Road accidents	907	729	709	686	652	641	700	952	1231	1183	839,0	23,3%
Harbours	0	0	0	0	0	0	0	2	64	88	15,4	0,4%
Recoveries	800	803	747	764	605	834	523	470	503	372	642,1	17,8%
Rescue of Animals	6	4	9	3	8	4	2	5	0	70	11,1	0,3%
Rescue of person	832	884	922	845	954	1016	1101	1872	2540	2420	1.338,6	37,1%
Safety of buildings and Structures	19	74	63	33	68	15	15	37	91	133	54,8	1,5%
Others	184	226	220	194	194	296	220	270	575	276	265,5	7,4%
Total Casualities of citizens for year	3.112	3.004	3.176	2.918	3.052	3.198	2.827	4.104	5.584	5.076	3.605	100,0%

Table 47 – Distribution at national level of victims by type of intervention

6.2 Accidents and victims at regional level, split by type of intervention

In the following table, data regarding accidents occurred to civilians during rescue operations, are reported, split by type of intervention, at regional level.

TYPE OF RESCUE EVENT	ABRUZZO	BASILICATA	CALABRIA	CAMPANIA	EMILIA ROMAGNA	FRUI VENETIA GIULIA	LAZIO	LIGURIA	LOMBARDIA	MARCHE	MOLISE	PIEMONTE	PUGLIA	SARDEGNA	SICILIA	TOSCANA	UMBRIA	VENETO	Average by type (period 2008-2017)	% Distribution by type
	Water	3,9	2,1	38,1	25,1	32,5	3,8	44,2	12,3	24,2	3,7	0,8	19,0	15,9	9,6	11,6	36,1	1,0	35,6	320
Aircraft	0,4	0,0	7,0	2,8	0,6	169,3	22,7	2,8	3,7	0,5	0,1	8,6	4,7	59,1	21,9	0,8	1,4	16,7	323	1,8%
Unstable Trees	0,0	0,0	0,0	0,0	2,0	0,0	1,0	0,4	1,0	0,0	0,0	0,5	0,0	0,0	0,3	0,7	0,2	0,6	7	0,0%
Doors and Windows Openings	10,2	1,2	1,9	6,1	89,5	13,4	39,4	10,8	75,3	7,0	2,5	50,7	15,8	7,7	4,6	23,1	5,2	81,0	445	2,4%
Lift malfunction	23,7	6,1	11,8	20,3	133,7	36,3	59,6	50,6	460,2	34,4	6,8	191,3	41,0	23,5	29,8	134,6	12,6	146,5	1.423	7,8%
Reclamation from Insects	0,0	0,0	0,0	0,1	0,1	0,2	0,1	0,0	0,8	0,1	0,2	0,3	0,1	0,1	0,1	0,1	0,0	0,1	2	0,0%
Gas leak	0,5	0,2	1,4	1,8	7,2	2,6	12,6	4,8	34,8	2,1	0,0	14,7	3,5	1,9	2,4	10,8	1,4	12,1	115	0,6%
Fires and Explosions	16,5	3,2	18,6	50,1	116,8	35,5	129,6	42,4	217,4	23,8	4,3	108,0	69,1	23,8	59,4	86,6	9,3	128,9	1.143	6,3%
Road accidents	135,3	47,1	119,2	80,3	584,3	328,3	247,5	146,6	1.178,5	276,8	30,4	746,5	235,2	191,6	168,7	351,9	63,3	952,8	5.884	32,2%
Harbours	0,2	0,0	0,3	0,3	1,2	0,4	0,4	1,9	1,9	0,3	0,4	0,0	1,2	1,8	3,2	2,3	0,0	4,0	20	0,1%
Recoveries	1,9	0,1	0,7	1,9	0,8	2,8	1,3	2,2	6,2	3,2	1,4	1,8	2,9	1,2	2,9	2,3	0,7	7,0	41	0,2%
Rescue of Animals	0,1	0,3	0,0	0,2	0,3	0,2	1,5	0,7	1,4	0,4	0,0	1,1	1,5	0,3	0,1	1,0	0,1	0,7	10	0,1%
Rescue of person	103,3	32,9	136,7	113,3	597,3	378,3	281,2	766,3	1.747,6	214,6	35,2	836,9	177,2	213,4	298,3	583,4	68,3	1.099,9	7.684	42,0%
Safety of buildings and Structures	2,8	0,6	2,4	8,5	3,6	1,9	10,5	4,0	11,1	6,0	4,7	6,8	8,6	2,1	19,6	8,0	0,7	7,2	109	0,6%
Others	10,6	1,7	43,8	11,4	38,9	72,5	72,5	49,3	127,8	11,1	1,5	68,0	31,8	69,4	30,0	40,9	3,7	75,5	760	4,2%
Average by region (period 2008-2017):	309	96	382	322	1.609	1.046	924	1.095	3.892	584	88	2.054	609	606	653	1.283	168	2.569	18.287	100,0%

Table 48 – Distribution a regional level of injuries-split by type of intervention - period 2008-2017

In the following table, deaths of civilians occurred during intervention, at regional level are reported, splitted by type of operational scenario.

TYPE OF RESCUE EVENT	ABRUZZO	BASILICATA	CALABRIA	CAMPANIA	EMILIA ROMAGNA	FRIDULI VENEZIA GIULIA	LAZIO	LIGURIA	LOMBARDIA	MARCHE	MOLISE	PIEMONTE	PUGLIA	SARDEGNA	SICILIA	TOSCANA	UMBRIA	VENETO	Average by Type (period 2008-2017)	Distribuzione %
	Water	0,0	0,0	0,3	0,4	0,4	0,5	7,8	1,2	1,9	0,0	0,0	1,2	1,0	0,7	0,6	1,2	0,0	1,7	19
Aircraft	1,2	0,0	0,0	0,8	1,6	8,4	2,9	0,5	4,0	1,6	0,1	6,9	0,6	6,7	6,1	2,4	1,0	11,8	57	1,6%
Unstable Trees	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0	0,0%
Doors and Windows Openings	2,1	0,4	0,9	4,7	19,9	3,4	25,2	3,5	6,0	2,6	0,2	9,3	3,8	3,8	4,5	5,4	1,6	16,4	114	3,2%
Lift malfunction	0,0	0,1	0,1	0,0	0,5	0,0	8,9	0,5	1,7	0,1	0,0	0,0	0,0	0,1	0,8	0,4	0,0	0,4	14	0,4%
Reclamation from Insects	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,2	0	0,0%
Gas leak	0,1	0,0	0,2	0,3	0,7	0,4	5,2	1,1	2,6	0,3	0,1	1,8	1,7	0,0	0,8	1,1	0,1	1,4	18	0,5%
Fires and Explosions	3,4	1,9	7,3	12,7	14,0	6,7	38,0	8,3	29,1	4,2	0,8	14,9	12,7	4,1	18,2	14,5	4,7	22,1	218	6,0%
Road accidents	21,4	9,7	31,8	34,1	81,0	24,6	47,1	14,8	124,4	24,7	9,3	88,9	62,2	29,5	40,3	50,2	14,8	130,2	839	23,3%
Harbours	0,4	0,0	0,2	0,0	2,6	0,4	0,7	3,0	1,8	0,1	0,4	0,4	1,8	1,0	1,4	0,3	0,0	0,9	15	0,4%
Recoveries	11,2	4,3	33,3	29,6	57,0	27,7	29,7	22,1	128,3	14,5	2,9	54,7	21,7	15,3	57,8	37,4	12,0	82,6	642	17,8%
Rescue of Animals	0,0	0,0	0,0	0,2	7,0	0,1	1,6	0,1	0,5	0,0	0,0	0,3	0,3	0,3	0,2	0,5	0,0	0,0	11	0,3%
Rescue of person	21,4	7,5	23,0	40,5	116,0	61,8	77,2	57,6	330,8	46,0	4,6	171,1	35,4	24,1	50,2	90,2	20,0	161,2	1.339	37,1%
Safety of buildings and Structures	3,3	0,2	0,8	6,3	3,6	0,1	12,5	3,0	1,8	3,8	0,3	3,9	4,4	0,0	4,3	2,9	1,2	2,4	55	1,5%
Others	5,7	2,2	5,8	9,4	12,3	4,6	58,2	11,1	51,9	5,6	0,9	22,5	11,0	7,7	15,8	11,6	2,8	26,4	266	7,4%
Average by region (period 2008-2017):	70	26	104	139	317	139	315	127	685	104	20	376	157	93	201	218	58	458	3.605	100,0%

Table 49 –Distribution at national level of deaths, by type of intervention - period 2008-2017

6.3 Accidents and victims at national level by the “Fires and Explosions” type ordered by details on places of occurrence

In the following table accidents occurred to civilians have been reported for the period 2008-2017, for the “Fires and Explosions” type, splitted by detail of place. Only places which register frequency of events greater or equal to 0.3% of the whole amount are reported. With this filter 92.2% of the total amount have been considered.

Place	Detail of the place	Year										Annual average for place detail	Average % distribution (2008-2017)
		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017		
Places for Specific Uses	Places for Professional and Craft Activities	1	2	0	2	1	24	3	1	11	11	5,6	0,5%
	Hospital / clinics /ambulatories	8	3	11	25	27	0	1	28	8	8	11,3	1,0%
	Hotels and Turistic Premises	16	25	24	1	5	22	11	3	18	18	13,4	1,1%
	Others	25	7	182	2	4	1	2	13	18	18	26,8	2,3%
Residential Places and Homes	Private flats and Homes	363	373	383	415	420	349	520	630	826	826	546,4	46,1%
	Private Parkings	11	38	35	9	5	6	10	31	37	37	22,7	1,9%
	Generic Building	137	133	129	98	95	62	128	167	162	162	139,1	11,7%
	Heating Plant Rooms	0	0	6	0	0	0	18	7	10	10	5,5	0,5%
	Switchboard Room	0	12	7	17	0	17	6	3	8	8	10,7	0,9%
	Others	7	4	4	5	15	32	47	13	58	58	28,1	2,4%
	Others	7	0	1	2	1	2	0	7	9	9	4,2	0,4%
Commercial and Sales Stores	Big Sale Halls	0	0	0	0	33	0	10	4	0	0	4,4	0,4%
	Restaurant and Canteens	0	4	2	2	9	6	7	14	24	24	10,5	0,9%
	Others	2	2	1	2	3	1	1	2	15	15	4,3	0,4%
Agricultural and Farming Places	Forest and Woods	5	4	3	60	30	1	1	5	7	7	15,7	1,3%
	Fields	27	11	13	16	21	6	6	46	20	20	20,0	1,7%
	Storage Buildings	1	0	0	0	33	0	0	1	8	8	4,9	0,4%
	Agricultural Building	1	0	1	0	0	0	2	5	14	14	3,9	0,3%
	Rural Areas	10	13	2	8	42	3	4	5	6	6	10,8	0,9%
	Others	1	1	1	2	1	1	13	0	3	3	21,1	1,8%
	Others	2	13	8	6	14	4	17	7	15	15	10,6	0,9%
Traffic and Parking Areas	Inner Yard of Buildings	0	1	0	1	33	8	1	2	1	1	4,5	0,4%
	Road Tunnels	98	112	113	60	39	34	53	46	70	70	95,1	8,0%
	Urban Roads and Squares	50	30	39	52	78	29	37	61	71	71	50,6	4,3%
	Extraurban Roads	60	0	0	4	12	0	3	1	0	0	7,3	0,6%
	Mountain Areas	10	2	10	0	9	13	4	11	4	4	6,1	0,5%
	Not evaluated	2	6	2	6	7	2	7	3	2	2	3,7	0,3%
Other Places	Seashore Areas	1	3	3	3	6	13	2	12	7	7	5,6	0,5%
	Harbour Areas												
Total												92,2%	

Table 50 –Distribution at national level of accidents by the “Fires and Explosions” type - period 2008 - 2017

In the following table deaths of civilians caused by “fires and explosion” are reported, splitted by location. Only locations which register a frequency of deaths equal or greater than 04% of the whole amount have been reported. With this filter 93.2 % of all victims have been included.

Place	Detail of the place	Year										Annual average for place detail	Average % distribution (2008-2017)
		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017		
Places for Specific Uses	Others	0	1	1	0	1	1	1	2	2	1	1,0	0,5%
Residential Places and Homes	Private flats and Homes	49	56	74	65	75	72	49	79	179	181	87,9	40,4%
	Private Parkings	0	3	3	1	0	3	0	5	5	5	2,5	1,1%
	Temporary Buildings	4	3	3	0	1	1	1	0	1	2	1,6	0,7%
	Generic Building	8	11	4	15	10	8	14	15	43	25	15,3	7,0%
	Heating Plant Rooms	0	0	0	0	0	0	16	0	0	0	1,6	0,7%
	Others	0	2	0	1	1	6	0	0	3	4	1,7	0,8%
Clothing Factories	Textile Fiber Production	0	0	4	0	0	17	0	0	0	0	2,1	1,0%
	Other Types of Clothing Factories	0	0	0	0	3	7	0	0	0	0	1,0	0,5%
Factories handling / producing Explosives	Of Explosives	16	0	0	9	0	6	1	6	0	0	3,8	1,7%
Commercial and Sales Stores	Cafeterias, Pubs	1	0	2	0	2	0	1	2	1	0	0,9	0,4%
	Restaurant and Canteens	0	2	5	0	0	0	0	6	0	0	1,3	0,6%
Agricultural and Farming Places	Forest and Woods	2	0	3	2	9	2	2	0	5	1	2,6	1,2%
	Fields	14	5	50	11	29	13	4	8	5	11	15,0	6,9%
	Agricultural Building	4	1	5	0	0	0	0	3	3	3	1,6	0,7%
	Rural Areas	2	4	4	7	2	3	3	5	2	9	4,1	1,9%
	Others	2	0	2	3	1	3	0	1	0	0	1,2	0,6%
Traffic and Parking Areas	Inner Yard of Buildings	2	2	4	3	1	1	1	2	0	7	2,3	1,1%
	Out door Parking	0	0	0	0	0	0	0	1	3	6	1,0	0,5%
	Urban Roads and Squares	32	20	67	22	66	25	17	54	7	7	31,7	14,6%
	Extraurban Roads	19	11	16	18	30	14	11	14	17	25	17,5	8,0%
	Mountain Areas	1	1	1	0	3	2	0	0	0	0	0,8	0,4%
	Others	4	3	4	2	6	1	5	2	2	1	3,0	1,4%
Not evaluated	Not Evaluated	1	0	0	1	4	2	4	1	0	0	1,3	0,6%
Total:												93,2%	

Table 51 – Distribution at national level of victims ascribed to the “fire and explosion” type.

6.4 Accidents and victims at national level by cause and type: Fires and explosions.

The following table shows for the period 2008-2017, data of accidents to civilians detected in fires and explosions, splitted by originary causes. Only causes with frequency higher of 0.2% on the whole amount are reported. With this filter 97,7 of all accidents have been considered

Cause	Detail of the cause	Total (period 2008-2017)	Annual average by detail of the cause	% distribution
Causes provoking Statical Unsafe Conditions	Explosion	92	9,2	0,8%
Causes provoking need of Rescue to Persons	Road Accident	82	8,2	0,7%
	Others	34	3,4	0,3%
Causes of Accident of Transportation Means and Vehicle	Capsizing of the Vehicles / Loss of Transported Material	50	5,0	0,4%
	Crashes	177	17,7	1,5%
	Others	48	4,8	0,4%
Cause of Fire Ignition	Selfcombustion	29	2,9	0,3%
	Chimney and/or Owen Ducts	243	24,3	2,1%
	Electrical Causes	2.087	208,7	18,3%
	Mishandling of Flammables	25	2,5	0,2%
	Detonations and/or Fire Blast	227	22,7	2,0%
	Household Appliances	143	14,3	1,3%
	Glitter from Friction of Mechanical Parts	85	8,5	0,7%
	Fireworks	29	2,9	0,3%
	Fault on Heating Production Plants	59	5,9	0,5%
	Cigarette Butts and Matches	387	38,7	3,4%
	Lack of Adoption of Cautionary, Safety and Management Action/Measures	117	11,7	1,0%
	Re-ignition	48	4,8	0,4%
	Over Heating of Engines and Machines	93	9,3	0,8%
	Others	1.751	175,1	15,3%
Malicious / Intentional Causes	Malicious / Intentional Causes	439	43,9	3,8%
	Probably Fault Originated Causes	236	23,6	2,1%
	Probably Malicious/Intentional	187	18,7	1,6%
Causes of Other Types of Intervention	Unforeseen Causes	322	32,2	2,8%
	General Lack of Attention	248	24,8	2,2%
	Bad Working of Plants and or Machinery	57	5,7	0,5%
	Others	135	13,5	1,2%
Not Evaluated	Not Evaluated	268	26,8	2,3%
Not Being Possible to Evaluate	Not Being Possible to Evaluate	3.493	349,3	30,6%
Total:				97,9%

Table 52 – Distribution at national level of accidents by “fires and explosions”.

In the following table, data related to victims of civilians in the period 2008 – 2017 related to “fires and explosions”, detected during intervention, are splitted by details. Only causes that have a frequency rate higher to 0,2% of the total amount are reported. By this filter 98,5% of the whole amount of this kind of events have been considered.

Cause	Detail of the cause	Total (period 2008-2017)	Annual average by detail of the cause	% distribution
Causes provoking Statical Unsafe Conditions	Explosion	12	1,2	0,6%
Causes provoking need of Rescue to Persons	Road Accident	20	2,0	0,9%
	Not Being Possible to Evaluate	14	1,4	0,6%
	Attempt to Suicide	12	1,2	0,6%
	Others	8	0,8	0,4%
Causes of Pollution and/or Losses	Collapses or Damages of Trasportation Vessels	6	0,6	0,3%
	Others	10	1,0	0,5%
Causes of Accident of Transportation Means and Vehicles	Capsizing of the Vehicles / Loss of Transported Material	16	1,6	0,7%
	Crashes	52	5,2	2,4%
	Others	29	2,9	1,3%
Cause of Fire Ignition	Chimney and/or Owen Ducts	31	3,1	1,4%
	Electrical Causes	170	17,0	7,8%
	Detonations and/or Fire Blast	86	8,6	4,0%
	Household Appliances	13	1,3	0,6%
	Glitter from Friction of Mechanical Parts	11	1,1	0,5%
	Fireworks	7	0,7	0,3%
	Fault on Heating Production Plants	9	0,9	0,4%
	Cigarette Butts and Matches	53	5,3	2,4%
	Lack of Adoption of Cautionary, Safety and Management Action/Measures	7	0,7	0,3%
	Over Heating of Engines and Machines	6	0,6	0,3%
	Others	364	36,4	16,7%
Malicious / Intentional Causes	Malicious / Intentional Causes	67	6,7	3,1%
	Probably Fault Originated Causes	23	2,3	1,1%
	Probably Malicious/Intentional	57	5,7	2,6%
Causes of Other Types of Intervention	Unforeseen Causes	25	2,5	1,1%
	General Lack of Attention	21	2,1	1,0%
	Bad Working of Plants and or Machinery	9	0,9	0,4%
	Others	31	3,1	1,4%
Not Evaluated	Not Evaluated	87	8,7	4,0%
Not Being Possible to Evaluate	Not Being Possible to Evaluate	888	88,8	40,8%
TOTAL:				98,5%

Table 53 – Distribution at national level of victims by type “fires and explosions” – Period 2008-2017

7 Prevention and Fire Surveillance

The purpose of this report is to offer elements of knowledge and an overview regarding the fire prevention acts conducted by the Fire Brigade on the activities subjected by the law to their control, as by the Presidential Decree 151 / 2011.

The goal consists so in monitoring the services of fire prevention handled by the Fire Brigades, in order to get more detailed knowledge. This is also valid for the activities in which fire surveillance services are given, in order to raise the effectiveness of the use of the resources, both at central and local levels of organization.

The screening has involved the whole country, except the autonomously ruled territories of the Provinces of Trento and Bolzano and of the Region of Valle d'Aosta, who have their own services of fire prevention and fire surveillance.

The data shown refer to the applications received by the Departments and the concluded proceedings carried to conclusion by the territorial bureaux for the Fire Fighters in the field of Fire Prevention (evaluation of projects, preliminary allowances of feasibility, communications of beginning of activity, periodical reviews, special proceedings for cases not solvable by application of ordinary prescriptions) and also to Fire Surveillance Services, as by the article 18 of the Decree 139/2006, services given mainly in places of public entertainment shows with high levels of crowd.

7.1 Fire Prevention

Data related to the fire prevention proceedings, are outcomes and elaborations of the applications and declarations that the Responsible of the activity - those listed by the law - are obliged to present to local Provincial Fire Department – as by the Presidential Decree n 151/2011. The annex 1 to the Decree reports the details and classification of the activities

As by the principle of proportionality, the Decree fixes 3 levels of classification on the activities, on the base of the risk connected to each of them, considering what is foreseen for each specific activity by the statements of the technical rules.

Particularly, all the tasks connected to the evaluation of projects are differentiated by level of concernment of the public interest. For “A” classified activities, for which technical rules have been edited, and not too complicated on the base of their standardization, a preventive authorization of the Provincial Fire Dept is not foreseen, but only a proceeding of “Communication of Beginning of Activity”, (SCIA in Italian)

For what concerns fire inspections, after the entry in force of the Presidential Decree 151/2001, the activities conducted by the Provincial Fire Department have been mainly focused on the most complex activities in terms of fire prevention, more specifically those classified as “C” activities by the Decree, while the “A” and “B” activities have been checked on the base of random ruled selection, after the presentation of “SCIAs” (Communications of Beginning of Activity)

Other relevant elements of innovation of the proceedings of fire prevention are given by voluntary acts, as the Preliminary Authorization of Feasibility (“NOF”, in Italian *Nulla Osta di Fattibilità*), and the Verification on Ongoing Works, (alias “in the yard”) the first representing a pre-evaluation of specific complex issues, in order to address in the best way the main instance of approval of projects, the latter, an inspection on demand, while the building activities are still in act.

7.1.1 Activities of Fire Prevention

In the following table fire prevention data for the year 2017 have been reported applying a histogram format to show the trend for each type of issues, in each Region.

REGION	Application issued in 2017						Applications carried out in 2017					
	Projects evaluation	Communications of Beginning of Activity	Preliminary Authorization of Feasibility	Verification on Ongoing Works	Periodical reviews	Total by region	Projects evaluation	Inspection checks	Preliminary Authorization of Feasibility	VCO	Periodical reviews	Total by region
Piemonte	2.463	6.244	7	11	9.566	18.291	1.950	3.019	4	9	7.971	12.953
Lombardia	6.072	9.991	32	36	18.106	34.237	4.937	7.016	27	23	16.576	28.579
Veneto e T.A.A.	3.332	8.086	28	26	16.674	28.146	2.722	4.922	21	22	16.313	24.000
Liguria	761	2.369	3	6	3.252	6.391	622	1.739	3	5	3.036	5.405
Friuli V. G.	700	1.680	7	7	5.396	7.790	622	1.365	6	4	5.351	7.348
Emilia Romagna	2.964	6.317	17	39	11.002	20.339	2.717	4.919	9	3	10.314	17.962
Toscana	2.034	4.836	4	5	8.603	15.482	1.621	3.654	3	8	8.014	13.300
Marche	771	2.701	1	3	4.115	7.591	705	2.207	1	1	4.048	6.962
Umbria	503	1.895	1	1	4.103	6.503	399	1.120	1	1	1.078	2.599
Lazio	2.528	6.889	19	16	6.697	16.149	1.933	2.678	16	11	4.672	9.310
Abruzzo	617	1.540	4	2	1.620	3.783	521	1.210	4	1	1.467	3.203
Molise	116	279	1	0	330	726	106	192	1	0	303	602
Campania	1.875	2.820	7	5	5.613	10.320	1.713	2.411	2	4	5.488	9.618
Puglia	1.330	2.011	7	1	3.889	7.238	1.101	1.493	6	1	3.542	6.143
Basilicata	157	415	0	1	774	1.347	142	339	0	0	752	1.233
Calabria	521	1.469	2	0	1.086	3.078	461	1.050	1	0	1.040	2.552
Sicilia	1.309	2.387	6	2	3.268	6.972	1.132	1.794	4	1	2.895	5.826
Sardegna	493	1.621	8	5	1.960	4.087	429	1.187	6	5	1.786	3.413
National total	28.546	63.550	154	166	106.054	198.470	23.833	42.315	115	99	94.646	161.008

Table 54 –Fire Prevention Services by Region. – year 2017

In the following table the 2017 data regarding percentage changes, at regional level, between the started applications and “closed” (fulfilled) ones .

% Variation between applications carried out and application issued in 2017						
REGION	Projects evaluation	Communications of Beginning of Activity	Preliminar Authorization of Feasibility	Verification on Ongoing Works	Periodical reviews	Total by region
Piemonte	-20,8%	-51,6%	-42,9%	-18,2%	-16,7%	-29,2%
Lombardia	-18,7%	-29,8%	-15,6%	-36,1%	-8,5%	-16,5%
Veneto e T.A.A.	-18,3%	-39,1%	-25,0%	-15,4%	-2,2%	-14,7%
Liguria	-18,3%	-26,6%	0,0%	-16,7%	-6,6%	-15,4%
Friuli V. G.	-11,1%	-18,8%	-14,3%	-42,9%	-0,8%	-5,7%
Emilia Romagna	-8,3%	-22,1%	-47,1%	-92,3%	-6,3%	-11,7%
Toscana	-20,3%	-24,4%	-25,0%	60,0%	-6,8%	-14,1%
Marche	-8,6%	-18,3%	0,0%	-66,7%	-1,6%	-8,3%
Umbria	-20,7%	-40,9%	0,0%	0,0%	-73,7%	-60,0%
Lazio	-23,5%	-61,1%	-15,8%	-31,3%	-30,2%	-42,3%
Abruzzo	-15,6%	-21,4%	0,0%	-50,0%	-9,4%	-15,3%
Molise	-8,6%	-31,2%	0,0%	0,0%	-8,2%	-17,1%
Campania	-8,6%	-14,5%	-71,4%	-20,0%	-2,2%	-6,8%
Puglia	-17,2%	-25,8%	-14,3%	0,0%	-8,9%	-15,1%
Basilicata	-9,6%	-18,3%	0,0%	-100,0%	-2,8%	-8,5%
Calabria	-11,5%	-28,5%	-50,0%	0,0%	-4,2%	-17,1%
Sicilia	-13,5%	-24,8%	-33,3%	-50,0%	-11,4%	-16,4%
Sardegna	-13,0%	-26,8%	-25,0%	0,0%	-8,9%	-16,5%

Table 55 –Variation % between proceedings started and ended in 2017.

In the following table fire prevention data of the year 2017 have been reported applying a histogram format to shows the trend for each type of applications, in each Provincial Fire Department.

Provincial Fire Department	Application issued in 2017						Applications carried out in 2017					
	Projects evaluation	Communications of Beginning of Activity	Preliminary Authorization of Feasibility	Verification on Ongoing Works	Periodical reviews	Total by region	Projects evaluation	Inspection checks	Preliminary Authorization of Feasibility	VCO	Periodical reviews	Total by region
Piemonte												
Alessandria	290	744	0	0	963	1.997	235	479	0	0	954	1.668
Asti	124	470	0	0	653	1.247	102	399	0	0	609	1.110
Biella	95	294	1	0	397	787	75	246	1	0	317	639
Cuneo	451	1.189	1	3	1.469	3.113	371	782	1	3	1.397	2.554
Novara	227	405	1	0	600	1.233	173	300	1	0	574	1.048
Torino	1.081	2.629	4	8	4.524	8.246	815	330	1	6	3.165	4.317
Verbania	77	265	0	0	528	870	66	254	0	0	527	847
Vercelli	118	248	0	0	432	798	113	229	0	0	428	770
Lombardia												
Bergamo	657	1.139	1	2	3.127	4.926	583	720	1	1	1.790	3.095
Brescia	795	1.351	10	2	2.067	4.225	667	609	9	2	1.930	3.217
Como	428	640	5	11	887	1.971	389	467	5	7	903	1.771
Cremona	243	407	0	0	660	1.310	200	297	0	0	658	1.155
Lecco	180	338	0	1	936	1.455	136	227	0	1	927	1.291
Lodi	138	219	1	4	405	767	119	193	1	2	391	706
Mantova	275	668	0	1	1.370	2.314	249	616	0	1	1.368	2.234
Milano	2.430	3.140	10	14	5.564	11.158	1.836	2.129	7	9	5.587	9.568
Pavia	323	854	5	0	1.012	2.194	284	697	4	0	951	1.936
Sondrio	145	276	0	1	651	1.073	120	204	0	0	650	974
Varese	458	959	0	0	1.427	2.844	354	857	0	0	1.421	2.632
Veneto e T.A.A.												
Belluno	165	837	0	1	2.652	3.655	117	614	0	1	2.656	3.388
Padova	679	1.227	7	13	2.886	4.812	566	913	6	11	2.767	4.263
Rovigo	148	504	0	2	523	1.177	120	343	0	2	512	977
Treviso	555	1.942	3	4	2.901	5.405	484	712	3	4	2.795	3.998
Venezia	569	1.110	12	4	2.616	4.311	503	766	6	4	2.584	3.863
Verona	628	1.156	2	1	2.678	4.465	492	295	2	0	2.549	3.338
Vicenza	588	1.310	4	1	2.418	4.321	440	1.279	4	0	2.450	4.173

Table 56 (1/4) –Fire Prevention Services, by Provincial Fire Department – year 2017

Provincial Fire Department	Application issued in 2017						Applications carried out in 2017					
	Projects evaluation	Communications of Beginning of Activity	Preliminary Authorization of Feasibility	Verification on Ongoing Works	Periodical reviews	Total by region	Projects evaluation	Inspection checks	Preliminary Authorization of Feasibility	VCO	Periodical reviews	Total by region
Liguria												
Genova	386	955	2	0	1.535	2.878	301	706	2	0	1.397	2.406
Imperia	144	456	0	5	588	1.193	125	332	0	4	564	1.025
La Spezia	76	369	0	1	516	962	60	307	0	1	466	834
Savona	155	589	1	0	613	1.358	136	394	1	0	609	1.140
Friuli V. G.												
Gorizia	75	127	0	1	311	514	60	104	0	1	316	481
Pordenone	224	524	1	0	2.051	2.800	199	491	1	0	2.044	2.735
Trieste	76	235	1	1	354	667	64	143	1	1	92	301
Udine	325	794	5	5	2.680	3.809	299	627	4	2	2.899	3.831
Emilia Romagna												
Bologna	659	1.672	8	3	3.367	5.709	618	1.330	8	1	3.108	5.065
Ferrara	184	486	1	0	513	1.184	165	402	1	0	448	1.016
Forlì - Cesena	318	551	0	1	1.021	1.891	316	460	0	0	1.003	1.779
Modena	494	893	0	23	1.866	3.276	453	712	0	0	1.789	2.954
Parma	346	664	7	5	672	1.694	295	504	0	0	506	1.305
Piacenza	185	395	0	0	628	1.208	180	286	0	0	626	1.092
Ravenna	302	538	0	0	890	1.730	272	456	0	0	884	1.612
R. Emilia	275	678	1	4	1.235	2.193	231	440	0	1	1.221	1.893
Rimini	201	440	0	3	810	1.454	187	329	0	1	729	1.246
Toscana												
Arezzo	179	614	0	0	1.244	2.037	165	538	0	0	1.213	1.916
Firenze	461	1.107	0	1	1.516	3.085	382	700	0	1	1.554	2.637
Grosseto	83	508	1	0	1.293	1.885	53	457	1	1	1.078	1.590
Livorno	141	358	0	2	1.169	1.670	107	268	0	3	1.127	1.505
Lucca	182	496	1	0	621	1.300	128	418	1	0	575	1.122
Massa C.	88	190	0	0	344	622	62	70	0	0	134	266
Pisa	265	527	0	2	602	1.396	248	438	0	3	566	1.255
Pistoia	114	288	1	0	537	940	83	133	1	0	535	752
Prato	330	223	0	0	34	587	238	115	0	0	33	386
Siena	191	525	1	0	1.243	1.960	155	517	0	0	1.199	1.871

Table 56 (2/4) –Fire Prevention Services, by Provincial Fire Department – year 2017

Provincial Fire Department	Application issued in 2017						Applications carried out in 2017					
	Projects evaluation	Communications of Beginning of Activity	Preliminary Authorization of Feasibility	Verification on Ongoing Works	Periodical reviews	Total by region	Projects evaluation	Inspection checks	Preliminary Authorization of Feasibility	VCO	Periodical reviews	Total by region
Marche												
Ancona	233	968	0	0	1.125	2.326	214	767	0	0	1.143	2.124
Ascoli P.	186	546	0	0	823	1.555	177	447	0	0	788	1.412
Macerata	153	632	1	1	926	1.713	147	540	1	0	907	1.595
Pesaro	199	555	0	2	1.241	1.997	167	453	0	1	1.210	1.831
Umbria												
Perugia	360	1.553	0	0	2.970	4.883	281	909	0	0	547	1.737
Terni	143	342	1	1	1.133	1.620	118	211	1	1	531	862
Lazio												
Frosinone	146	348	0	0	335	829	102	86	0	0	313	501
Latina	268	635	1	1	394	1.299	196	126	0	1	233	556
Rieti	78	325	1	4	265	673	50	62	1	4	284	401
Roma	1.924	4.906	17	11	5.199	12.057	1.506	2.321	15	6	3.346	7.194
Viterbo	112	675	0	0	504	1.291	79	83	0	0	496	658
Abruzzo												
Chieti	200	442	4	0	562	1.208	188	391	4	0	518	1.101
L'Aquila	141	222	0	0	298	661	100	187	0	0	289	576
Pescara	113	302	0	1	397	813	86	130	0	1	310	527
Teramo	163	574	0	1	363	1.101	147	502	0	0	350	999
Molise												
Campobasso	90	237	0	0	174	501	80	165	0	0	147	392
Isernia	26	42	1	0	156	225	26	27	1	0	156	210
Campania												
Avellino	165	273	2	0	552	992	155	192	0	0	498	845
Benevento	108	230	0	0	1.114	1.452	95	187	0	0	1.113	1.395
Caserta	412	419	2	1	760	1.594	385	354	2	1	746	1.488
Napoli	775	1.027	1	3	2.102	3.908	698	863	0	3	2.054	3.618
Salerno	415	871	2	1	1.085	2.374	380	815	0	0	1.077	2.272

Table 56 (3/4) –Fire Prevention Services, by Provincial Fire Department – year 2017

Provincial Fire Department	Application issued in 2017						Applications carried out in 2017					
	Projects evaluation	Communications of Beginning of Activity	Preliminary Authorization of Feasibility	Verification on Ongoing Works	Periodical reviews	Total by region	Projects evaluation	Inspection checks	Preliminary Authorization of Feasibility	VCO	Periodical reviews	Total by region
Puglia												
Bari	626	787	2	1	1.983	3.399	511	597	2	1	1.874	2.985
Brindisi	109	268	1	0	359	737	98	258	1	0	348	705
Foggia	173	288	0	0	493	954	136	240	0	0	483	859
Lecce	257	442	1	0	523	1.223	224	348	0	0	443	1.015
Taranto	165	226	3	0	531	925	132	50	3	0	394	579
Basilicata												
Matera	64	132	0	0	235	431	56	115	0	0	208	379
Potenza	93	283	0	1	539	916	86	224	0	0	544	854
Calabria												
Catanzaro	134	298	0	0	182	614	116	268	0	0	179	563
Cosenza	167	598	1	0	502	1.268	139	321	1	0	489	950
Crotone	51	170	0	0	66	287	48	156	0	0	61	265
Reggio C.	112	254	0	0	240	606	110	210	0	0	239	559
Vibo Valentia	57	149	1	0	96	303	48	95	0	0	72	215
Sicilia												
Agrigento	72	234	0	0	244	550	51	155	0	0	201	407
Caltanissetta	57	123	0	0	145	325	48	80	0	0	143	271
Catania	324	532	1	0	656	1.513	309	377	0	0	653	1.339
Enna	38	59	1	0	106	204	31	50	0	0	107	188
Messina	153	274	0	1	412	840	122	201	0	0	389	712
Palermo	328	494	2	0	644	1.468	289	411	2	0	642	1.344
Ragusa	119	217	0	1	477	814	101	185	0	1	384	671
Siracusa	97	235	2	0	206	540	89	194	2	0	205	490
Trapani	121	219	0	0	378	718	92	141	0	0	171	404
Sardegna												
Cagliari	201	657	5	1	938	1.802	177	413	5	1	959	1.555
Nuoro	69	179	0	0	263	511	61	130	0	0	86	277
Oristano	55	119	0	0	211	385	45	73	0	0	203	321
Sassari	168	666	3	4	548	1.389	146	571	1	4	538	1.260
National total:	28.546	63.550	154	166	106.054	198.470	23.833	42.315	115	99	94.646	161.008

Table 56 (4/4) – Fire Prevention Services, by Provincial Fire Department – year 2017

7.2 Fire Surveillance

For what concerns the Fire Surveillance Services, the data for this kind of activities refers to the services set up by the provincial fire departments in the 2017, on the base on the article 18 of the decree 139/2006 -already described as the actual Fire Regulatory Act - By *Fire Surveillance* the decree refers to the on the scene presidium held by the Fire Brigades, in exclusive way – which means with personnel acting out of the normal work activities – with own devices. This happens, on the base of payments of fees fixed by the law, in activities where behavioural factors or follow up of uncontrolled events can raise the risks to as not reasonably evaluable in advance, and not matchable only with technical prevention means. The fire surveillance activities are so addressed to integrate the safety initiatives typical of fire prevention, and to prevent risk situations and to ensure the immediate intervention in case the event would take place

These services are ordinarily given in public entertainment activities, but, in general terms, also elsewhere on request on the responsables of the same activities, on the base of the availability of personell and devices of the CNVVF, similarly in others, as harbours, factories, plants, sheeps and boats and so on.

For what concerning the above mentioned service, also in the year 2017, the theatres have been the main users of these services.

Generally speaking, these activities are ruled, for what concerning premises of public entertainment and shows by the Decree of the Ministry of Interiors, n. 261, dated 22 feb.1996. The Decree establishes also the level of involment (number of fire fighting units) of personnel to be present in the events and also the ways in which the service shall be conducted.

More specifically the article 4 of the Decree 261/1996 foresees that on proposal the Head of the Provincial Fire Department the commissions of the local authorities responsible for public events, will fix the number of fire fighters that will survey the events

For what concerns the distribution in the country, Lombardia and Lazio are the regions mainly involved at national level, having dealt with 30% of the services given in this field

Globally, at national level, the yeat 2017 has registered a +4% increase, vs. the average value of the previous 4 years.

7.2.1 Fire Surveillance Services.

In the following tables the data regarding fire surveillance services held by the C.N.VV.F. A histogram format has been chosen to show the trend for various activities in each Region (tab. n°57) and Provincial Fire Department (Tab. n°58)

REGION	FIRE SURVEILLANCE IN 2017										% VALUE BY REGION OF GLOBAL AMOUNT
	THEATERS	CIRCUS	HALL	STADIUM	SPORT HALL	EXHIBITIONS	DISCOS	HARBOUR	OTHERS	TOTAL	
Abruzzo	462	0	29	41	41	31	0	0	51	655	1,5%
Molise	38	0	10	0	0	0	0	0	7	55	0,1%
Calabria	514	0	40	77	58	43	27	235	88	1.082	2,5%
Campania	1.860	33	144	212	61	129	7	332	873	3.651	8,3%
Emilia Romagna	2.091	29	282	222	213	500	51	7	145	3.540	8,0%
Friuli V. G.	1.171	0	4	24	50	122	0	0	22	1.393	3,2%
Lazio	2.714	25	645	165	123	165	2	380	1.075	5.294	12,0%
Liguria	986	6	25	144	11	104	1	745	106	2.128	4,8%
Lombardia	3.661	279	528	268	264	1.221	141	1	1.276	7.639	17,4%
Marche	1.112	1	27	94	68	41	3	23	55	1.424	3,2%
Piemonte	1.848	38	114	76	172	149	143	0	150	2.690	6,1%
Puglia	741	60	0	103	25	79	67	352	291	1.718	3,9%
Basilicata	62	0	1	24	17	0	0	0	60	164	0,4%
Sardegna	401	7	63	25	36	42	0	224	74	872	2,0%
Sicilia	1.775	200	49	134	13	114	23	1.111	132	3.551	8,1%
Toscana	1.659	125	103	302	126	453	69	1.046	389	4.272	9,7%
Umbria	388	15	6	53	25	67	1	0	116	671	1,5%
Veneto e T.A.A.	1.896	65	33	121	118	663	12	0	299	3.207	7,3%
NATIONAL TOTAL BY ACTIVITY:	23.379	883	2.103	2.085	1.421	3.923	547	4.456	5.209	44.006	100,0%
% VALUE BY ACTIVITY	53,1%	2,0%	4,8%	4,7%	3,2%	8,9%	1,2%	10,1%	11,8%	100,0%	

Table 57 – Surveillance services, by Region, year 2017

Provincial Fire Department	FIRE SURVEILLANCE IN 2017									
	THEATERS	CIRCUS	HALL	STADIUM	SPORT HALL	EXIBITIONS	DISCOS	HARBOUR	OTHERS	TOTAL
Piemonte										
Alessandria	122	7	2	2	1	14	22	0	2	172
Asti	100	0	0	6	0	25	0	0	3	134
Biella	87	2	0	1	17	0	0	0	21	128
Cuneo	246	5	0	0	1	20	0	0	30	302
Novara	151	0	0	20	0	0	0	0	2	173
Torino	856	17	112	47	145	88	67	0	67	1.399
Verbania	172	7	0	0	8	0	0	0	17	204
Vercelli	114	0	0	0	0	2	54	0	8	178
Lombardia										
Bergamo	208	13	2	40	1	42	0	0	27	333
Brescia	229	57	5	29	18	101	0	0	66	505
Como	128	1	15	78	25	72	0	0	3	322
Cremona	120	7	90	20	2	23	0	1	22	285
Lecco	1	0	0	0	0	0	0	0	0	1
Lodi	116	0	0	0	28	35	0	0	4	183
Mantova	76	1	99	19	3	10	0	0	19	227
Milano	2.089	192	317	75	104	854	138	0	1.078	4.847
Pavia	217	0	0	3	4	19	3	0	51	297
Sondrio	100	8	0	0	9	20	0	0	4	141
Varese	377	0	0	4	70	45	0	0	2	498
Veneto e T.A.A.										
Belluno	101	0	0	0	0	43	0	0	1	145
Padova	156	65	6	52	16	1	10	0	136	442
Rovigo	62	0	0	0	0	8	0	0	1	71
Treviso	184	0	2	1	54	1	2	0	53	297
Venezia	580	0	16	0	5	376	0	0	8	985
Verona	527	0	9	42	43	170	0	0	100	891
Vicenza	286	0	0	26	0	64	0	0	0	376
Liguria										
Genova	499	4	2	119	11	91	0	733	43	1.502
Imperia	297	0	23	0	0	1	0	9	46	376
La Spezia	96	2	0	23	0	12	0	3	13	149
Savona	94	0	0	2	0	0	1	0	4	101
Friuli V.G.										
Gorizia	138	0	0	0	0	7	0	0	5	150
Pordenone	145	0	0	0	0	56	0	0	0	201
Trieste	742	0	0	0	50	4	0	0	4	800
Udine	146	0	4	24	0	55	0	0	13	242

Table 58 (1/3) – Surveillance services, by Provincial Fire Department, year 2017

Provincial Fire Department	FIRE SURVEILLANCE IN 2017									
	THEATERS	CIRCUS	HALL	STADIUM	SPORT HALL	EXIBITIONS	DISCOS	HARBOUR	OTHERS	TOTAL
Emilia Romagna										
Bologna	513	12	110	30	76	110	28	0	6	885
Ferrara	200	0	0	26	2	29	0	0	19	276
Forli-Cesena	242	0	0	22	46	68	0	0	12	390
Modena	292	0	1	35	45	56	0	0	13	442
Parma	334	2	0	25	0	69	0	0	11	441
Piacenza	94	0	0	0	0	44	0	0	4	142
Ravenna	135	0	10	0	0	5	17	0	66	233
Reggio Emilia	142	15	0	54	31	44	1	0	6	293
Rimini	139	0	161	30	13	75	5	7	8	438
Toscana										
Arezzo	72	6	0	24	0	40	1	0	25	168
Firenze	494	38	32	64	48	143	11	0	48	878
Grosseto	98	0	10	27	0	7	0	28	42	212
Livorno	123	17	0	40	24	11	10	956	63	1.244
Lucca	211	6	26	23	3	65	0	25	19	378
Massa Carrara	115	0	0	21	0	95	0	37	41	309
Pisa	138	4	23	72	0	0	0	0	66	303
Pistoia	83	35	12	0	18	92	47	0	3	290
Prato	160	4	0	9	0	0	0	0	33	206
Siena	165	15	0	22	33	0	0	0	49	284
Marche										
Ancona	368	1	3	0	4	0	3	0	7	386
Ascoli Piceno	196	0	0	51	0	0	0	0	30	277
Macerata	316	0	0	20	29	34	0	0	12	411
Pesaro Urbino	232	0	24	23	35	7	0	23	6	350
Umbria										
Perugia	340	12	0	28	25	67	1	0	81	554
Terni	48	3	6	25	0	0	0	0	35	117
Lazio										
Frosinone	25	0	0	30	0	23	0	0	3	81
Latina	191	0	0	38	0	32	0	349	3	613
Rieti	89	0	0	21	32	0	0	0	40	182
Roma	2.403	25	641	76	91	110	2	31	1.016	4.395
Viterbo	6	0	4	0	0	0	0	0	13	23
Abruzzo										
L'Aquila	155	0	17	5	7	0	0	0	3	187
Chieti	134	0	5	0	0	16	0	0	9	164
Pescara	121	0	7	36	3	15	0	0	30	212
Teramo	52	0	0	0	31	0	0	0	9	92
Molise										
Campobasso	0	0	5	0	0	0	0	0	4	9
Isernia	38	0	5	0	0	0	0	0	3	46

Table 58 (2/3) – Surveillance services, by Provincial Fire Department, year 2017

Provincial Fire Department	FIRE SURVEILLANCE IN 2017									
	THEATERS	CIRCUS	HALL	STADIUM	SPORT HALL	EXIBITIONS	DISCOS	HARBOUR	OTHERS	TOTAL
Campania										
Avellino	66	16	0	26	31	28	3	0	10	180
Benevento	59	2	0	25	1	14	0	0	7	108
Caserta	84	8	22	37	12	51	0	0	98	312
Napoli	1.339	4	100	61	3	30	4	9	700	2.250
Salerno	312	3	22	63	14	6	0	323	58	801
Puglia										
Bari	413	59	0	37	25	40	0	331	36	941
Brindisi	63	1	0	1	0	0	0	7	35	107
Foggia	2	0	0	19	0	9	0	0	36	66
Lecce	161	0	0	30	0	30	54	14	143	432
Taranto	102	0	0	16	0	0	13	0	41	172
Basilicata										
Matera	19	0	0	24	2	0	0	0	36	81
Potenza	43	0	1	0	15	0	0	0	24	83
Calabria										
Catanzaro	138	0	34	21	0	7	27	0	7	234
Cosenza	214	0	2	0	37	0	0	18	67	338
Crotone	50	0	0	24	0	36	0	179	12	301
Reggio C.	111	0	4	23	21	0	0	37	2	198
Vibo Valentia	1	0	0	9	0	0	0	1	0	11
Sicilia										
Agrigento	53	0	0	0	0	0	0	129	23	205
Caltanissetta	0	0	0	1	1	0	0	0	2	4
Catania	495	0	36	31	12	49	0	35	57	715
Enna	0	0	0	0	0	0	0	0	13	13
Messina	166	69	0	16	0	6	0	547	12	816
Palermo	587	106	0	25	0	32	0	0	11	761
Ragusa	112	25	0	0	0	27	0	68	12	244
Siracusa	169	0	0	30	0	0	0	163	2	364
Trapani	193	0	13	31	0	0	23	169	0	429
Sardegna										
Cagliari	262	1	59	21	0	39	0	38	21	441
Nuoro	13	0	0	3	0	2	0	1	21	40
Oristano	0	0	4	0	0	1	0	20	9	34
Sassari	126	6	0	1	36	0	0	165	23	357
NATIONAL TOTAL:	23.379	883	2.103	2.085	1.421	3.923	547	4.456	5.209	44.006

Table 58 (3/3) –Surveillance services, by Provincial Fire Department, year 2017

The following table shows, at provincial level, Percentage variations of the amount of the Fire surveillance services detected in 2017 vs the previous 4 years. The format adopted allows readings

- by rows (years 2013-2017), in order to highlight for each provincial fire department the trend in this year;
- by columns, in order to make possible comparison among the fire department;
- by columns (% variations in the year 2017 vs. average value), in order to highlight by green color the increases vs. the previous four years.

FIRE SURVEILLANCE - AVERAGES DISTRIBUTION AND % VARIATION

Provincial Fire Department	TOTAL 2013	TOTAL 2014	TOTAL 2015	TOTAL 2016	TOTAL 2017	AVERAGE (2014-2016)	% VARIATION (2017 vs AVERAGE)
Piemonte							
Alessandria	134	139	140	166	172	145	↑18,8%
Asti	139	96	110	87	134	108	↑24,1%
Biella	104	120	113	128	128	116	↑10,1%
Cuneo	279	272	264	301	302	279	↑8,2%
Novara	258	193	177	182	173	203	↓-14,6%
Torino	1.451	1.442	1.419	1.220	1.399	1.383	↑1,2%
Verbania	83	87	82	122	204	94	↑118,2%
Vercelli	226	171	161	150	178	177	↑0,6%
Lombardia							
Bergamo	417	357	360	368	333	376	↓-11,3%
Brescia	561	446	418	521	505	487	↑3,8%
Como	305	239	302	357	322	301	↑7,1%
Cremona	268	422	660	290	285	410	↓-30,5%
Lecco	4	5	4	3	1	4	↓-75,0%
Lodi	73	75	205	242	183	149	↑23,0%
Mantova	117	147	157	191	227	153	↑48,4%
Milano	4.414	4.574	4.996	4.765	4.847	4.687	↑3,4%
Pavia	285	280	250	249	297	266	↑11,7%
Sondrio	37	33	62	116	141	62	↑127,4%
Varese	567	708	458	533	498	567	↓-12,1%
Veneto e T.A.A.							
Belluno	138	122	54	149	145	116	↑25,3%
Padova	455	390	378	462	442	421	↑4,9%
Rovigo	54	49	49	61	71	53	↑33,3%
Treviso	203	226	246	243	297	230	↑29,4%
Venezia	954	947	1.206	1.024	985	1.033	↓-4,6%
Verona	741	700	890	825	891	789	↑12,9%
Vicenza	315	349	401	384	376	362	↑3,8%
Liguria							
Genova	1.610	1.746	2.485	1.510	1.502	1.838	↓-18,3%
Imperia	437	329	371	476	376	403	↓-6,8%
La Spezia	167	161	184	178	149	173	↓-13,6%
Savona	156	160	141	126	101	146	↓-30,7%
Friuli V.G.							
Gorizia	85	111	134	128	150	115	↑31,0%
Pordenone	144	186	158	165	201	163	↑23,1%
Trieste	666	779	801	786	800	758	↑5,5%
Udine	230	198	247	295	242	243	↓-0,2%

Table 59 (1/3) – Percentage variations of the Fire Surveillance Services

FIRE SURVEILLANCE - AVERAGES DISTRIBUTION AND % VARIATION							
Provincial Fire Department	TOTAL 2013	TOTAL 2014	TOTAL 2015	TOTAL 2016	TOTAL 2017	AVERAGE (2014-2016)	% VARIATION (2017 vs AVERAGE)
Emilia Romagna							
Bologna	827	853	823	920	885	856	↑3,4%
Ferrara	210	201	274	287	276	243	↑13,6%
Forlì-Cesena	349	355	327	376	390	352	↑10,9%
Modena	378	485	435	446	442	436	↑1,4%
Parma	357	415	410	410	441	398	↑10,8%
Piacenza	173	149	161	169	142	163	↓-12,9%
Ravenna	243	217	218	241	233	230	↑1,4%
R. Emilia	263	313	246	296	293	280	↑4,8%
Rimini	336	370	389	392	438	372	↑17,8%
Toscana							
Arezzo	68	70	54	92	168	71	↑136,6%
Firenze	813	883	1.057	897	878	913	↓-3,8%
Grosseto	142	130	163	162	212	149	↑42,0%
Livorno	1.327	1.170	1.181	1.255	1.244	1.233	↑0,9%
Lucca	498	458	423	457	378	459	↓-17,6%
Massa Carrara	143	219	178	249	309	197	↑56,7%
Pisa	275	282	240	267	303	266	↑13,9%
Pistoia	251	228	296	310	290	271	↑6,9%
Prato	232	190	220	206	206	212	↓-2,8%
Siena	220	218	253	287	284	245	↑16,2%
Marche							
Ancona	316	330	73	279	386	250	↑54,7%
Ascoli Piceno	257	232	267	275	277	258	↑7,5%
Macerata	304	331	400	406	411	360	↑14,1%
Pesaro Urbino	360	336	362	406	350	366	↓-4,4%
Umbria							
Perugia	553	510	501	508	554	518	↑6,9%
Terni	62	58	102	59	117	70	↑66,5%
Lazio							
Frosinone	120	121	153	173	81	142	↓-42,9%
Latina	720	646	661	578	613	651	↓-5,9%
Rieti	182	199	201	193	182	194	↓-6,1%
Roma	4.763	4.895	4.207	4.816	4.395	4.670	↓-5,9%
Viterbo	9	7	9	4	23	7	↑217,2%
Abruzzo							
L'Aquila	133	154	172	145	187	151	↑23,8%
Chieti	184	195	175	188	164	186	↓-11,6%
Pescara	173	270	241	237	212	230	↓-7,9%
Teramo	91	56	69	70	92	72	↑28,7%
Molise							
Campobasso	0	1	0	0	9	0	↑3500,0%
Isernia	32	31	31	47	46	35	↑30,5%

Table 59 (2/3) – Percentage variations of the Fire Surveillance Services

FIRE SURVEILLANCE - AVERAGES DISTRIBUTION AND % VARIATION

Provincial Fire Department	TOTAL 2013	TOTAL 2014	TOTAL 2015	TOTAL 2016	TOTAL 2017	AVERAGE (2014-2016)	% VARIATION (2017 vs AVERAGE)
Campania							
Avellino	165	178	85	182	180	153	↑18,0%
Benevento	126	121	123	138	108	127	↓-15,0%
Caserta	218	257	185	289	312	237	↑31,5%
Napoli	2.190	1.912	1.906	2.226	2.250	2.059	↑9,3%
Salerno	600	527	635	685	801	612	↑30,9%
Puglia							
Bari	879	862	955	978	941	919	↑2,4%
Brindisi	216	192	189	115	107	178	↓-39,9%
Foggia	121	128	76	33	66	90	↓-26,3%
Lecce	676	655	703	413	432	612	↓-29,4%
Taranto	138	166	190	169	172	166	↑3,8%
Basilicata							
Matera	77	81	105	87	81	88	↓-7,4%
Potenza	87	60	80	63	83	73	↑14,5%
Calabria							
Catanzaro	143	151	185	192	234	168	↑39,5%
Cosenza	210	612	242	291	338	339	↓-0,2%
Crotone	262	245	263	242	301	253	↑19,0%
Reggio C.	220	237	596	202	198	314	↓-36,9%
Vibo Valentia	2	2	3	9	11	4	↑175,0%
Sicilia							
Agrigento	238	249	162	236	205	221	↓-7,3%
Caltanissetta	17	9	11	1	4	10	↓-57,9%
Catania	750	736	695	635	715	704	↑1,6%
Enna	4	1	6	14	13	6	↑108,0%
Messina	715	701	866	886	816	792	↑3,0%
Palermo	1.110	715	825	712	761	841	↓-9,5%
Ragusa	353	356	270	242	244	305	↓-20,1%
Siracusa	520	557	578	394	364	512	↓-28,9%
Trapani	399	352	372	383	429	377	↑13,9%
Sardegna							
Cagliari	420	373	359	420	441	393	↑12,2%
Nuoro	47	31	31	23	40	33	↑21,2%
Oristano	72	31	37	36	34	44	↓-22,7%
Sassari	367	394	370	355	357	372	↓-3,9%
NATIONAL TOTAL:	42.783	42.728	44.158	43.557	44.006	42.756	↑2,9%

Table 59 (3/3) –Percentage variations of the Fire Surveillance Services

STATISTICAL YEARBOOK OF THE ITALIAN NATIONAL FIRE BRIGADES

Reference period:

January 1, 2017 - December 31, 2017

(data updated to March 13, 2018)

Statistics plays a major role, being a powerful tool to measure the effectiveness of the Public Administrations in absolving their institutional tasks. Moreover, the collection, sampling and analysis of data can be a precious support for the strategic planning and monitoring of the development policies of a complex organization as that of the Fire Brigades. Starting from these assumptions the organizational model of the Italian firefighters – “Corpo Nazionale dei Vigili del Fuoco” - foresees that the coordination of these activities shall be directly ascribed to the Head of the Fire Brigades. Followingly this report has been developed by the Statuary and Technical Standardization Bureau, Link of the Administration for Cultural Heritage Issues, who acts in direct collaboration with the Head of Organization

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