



MEFISTO

Mediterranean Forest Fire Fighting Training Standardization

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Cooperation European project co-funded by General Directorate for Civil Protection and Humanitarian Aid Operation (DG ECHO) of the European Commission (EC)

Partners:



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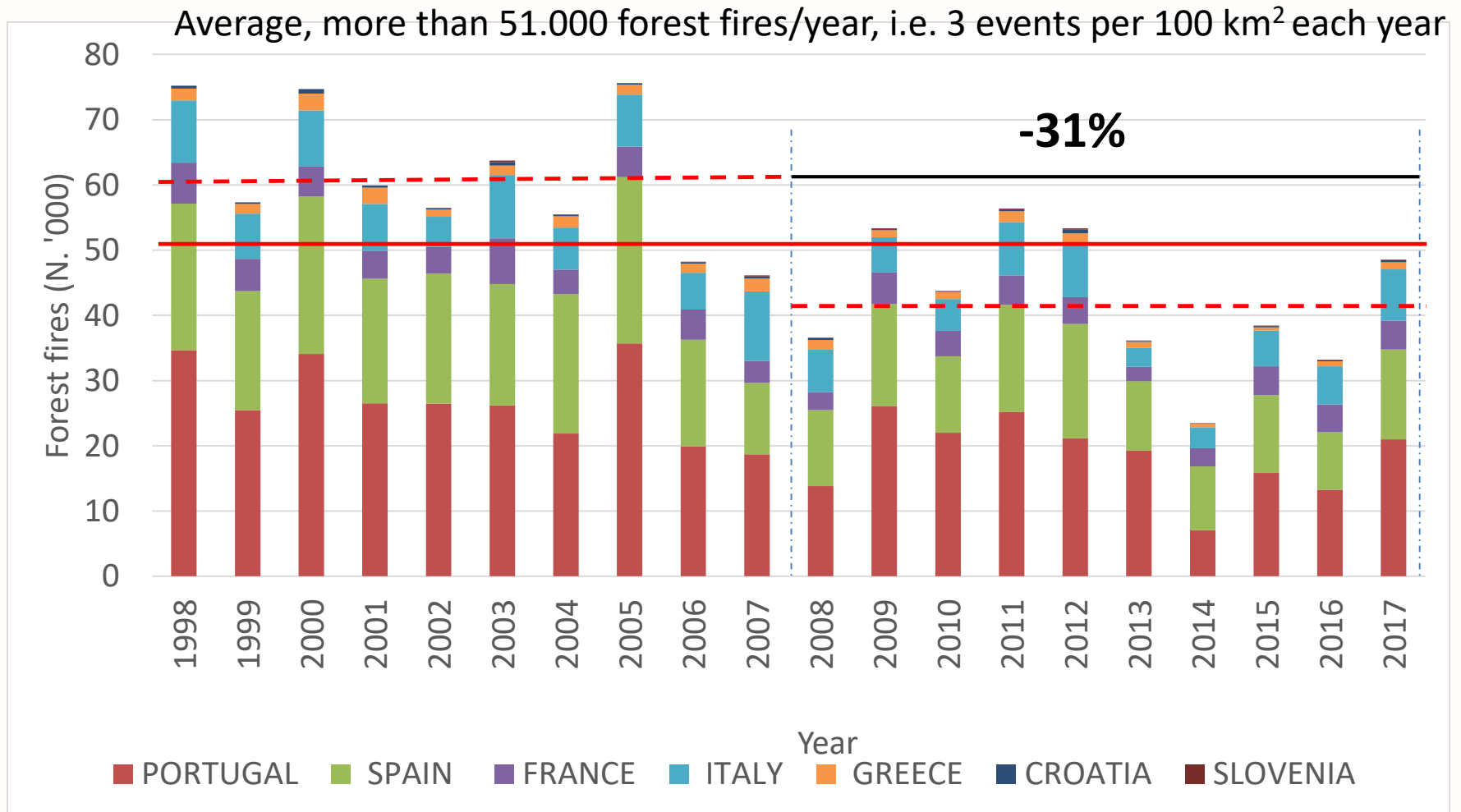
REGIONE
TOSCANA

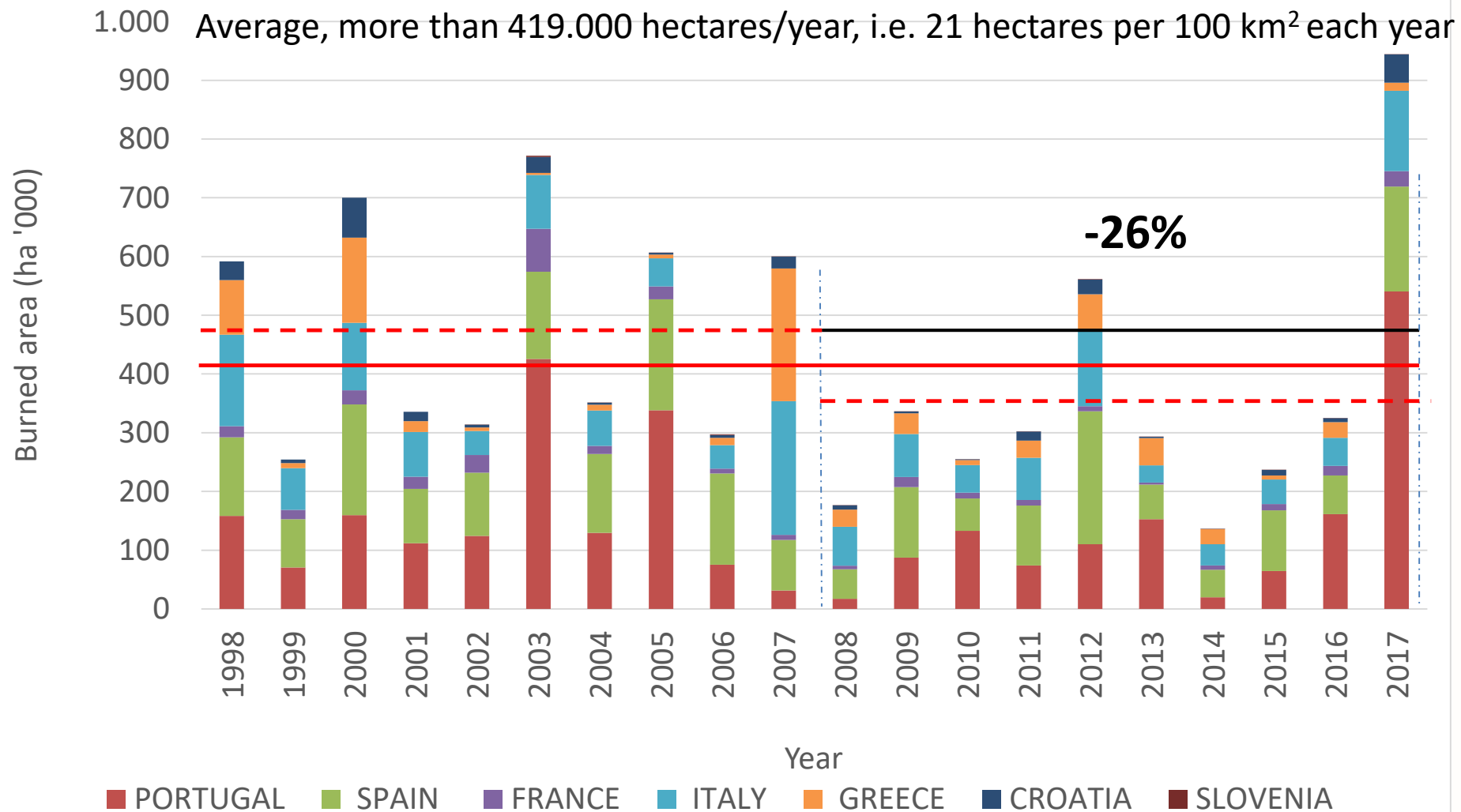
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**Directorate General for
European Civil Protection and
Humanitarian Aid Operations**

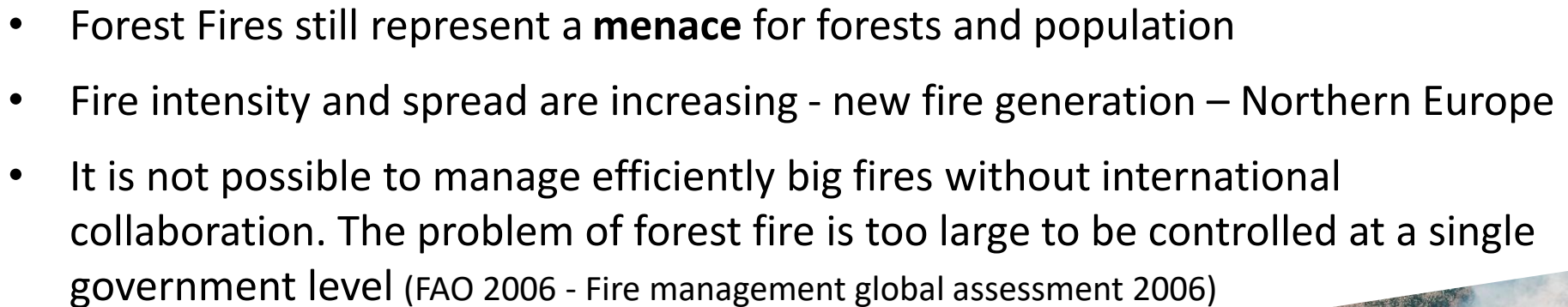
Why MEFISTO?





Source: JRC Technical reports - Forest Fires in Europe, Middle East and North Africa 2017

www.mefistoforestfires.eu



Improve international cooperation

12 July
2017

Positano

10 km

International Collaboration

European Civil protection and Humanitarian Aid Operations



***Emergency Response Coordination
Centre (ERCC)***

When national capacities to respond to a forest fire are surpassed, EU countries send assistance in the form of water-bombing **aircrafts and helicopters, fire-fighting equipment, and personnel.**

2017 → 17 activations, including Chile

Coordination – collaboration capacity

First international collaboration in 1976
Monte Argentario – Tuscany, Italy

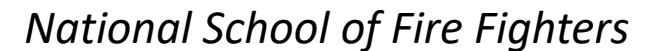
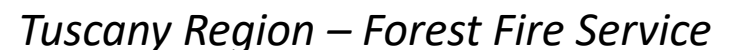




To create a network of stakeholders (structures and people)



Università degli Studi di Firenze

**REGIONE TOSCANA**

Coordination and Project Management

Mediterranean Forest fire Fighting: State of the Art

*Toward European Procedures for Forest Fire Fighting: Developing
Common terminology and Good practices Sharing and Agreement*

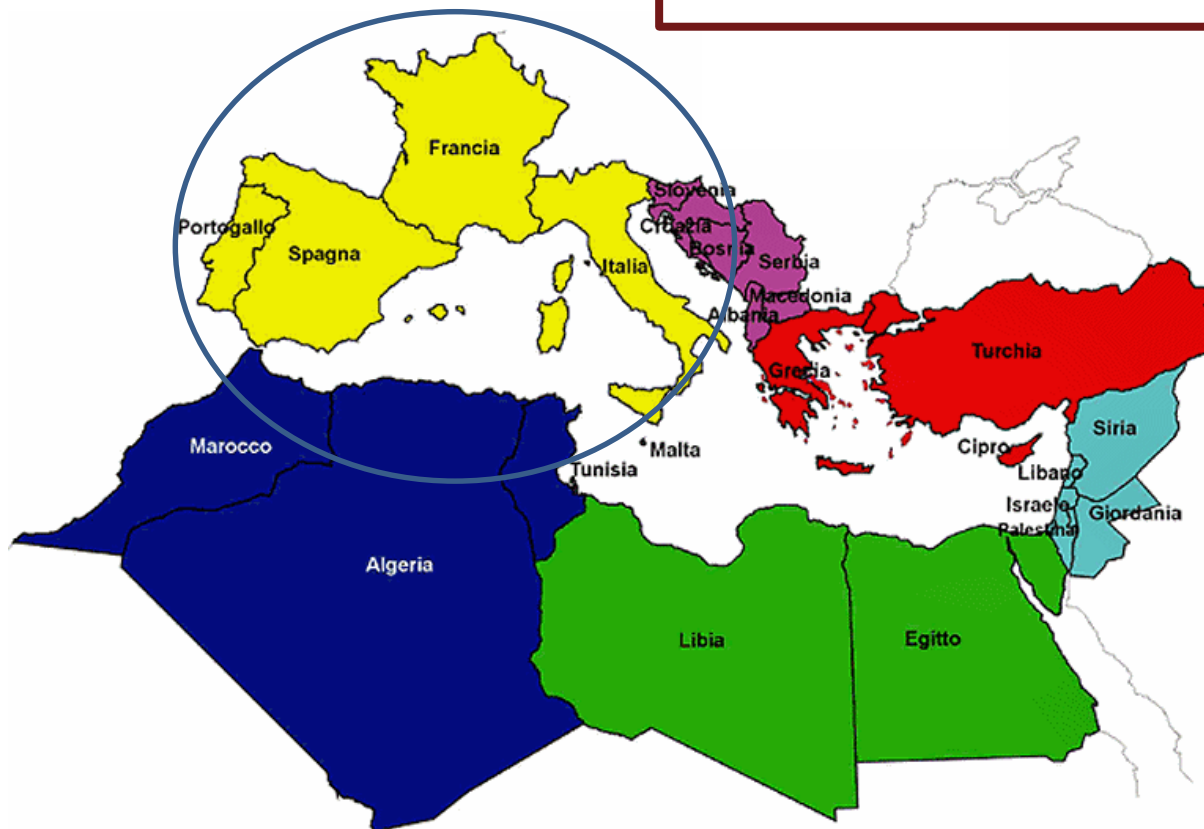
*Network Creation and Procedures
Implementation for Transnational Cooperation*

Training Program Standardisation and Implementation

Communication and Dissemination

Starting point → Mediterranean area

General approach of the project:



1) To know

2) To understand

3) To analyse

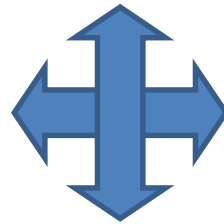
4) To standardize

Mediterranean Forest fire Fighting: State of the Art

Similarities and differences

Hierarchies/responsibilities

**Fire fighting
resources
management**



Organization

**Safety
measures**



National – Regional - Local



National – Regional - Local

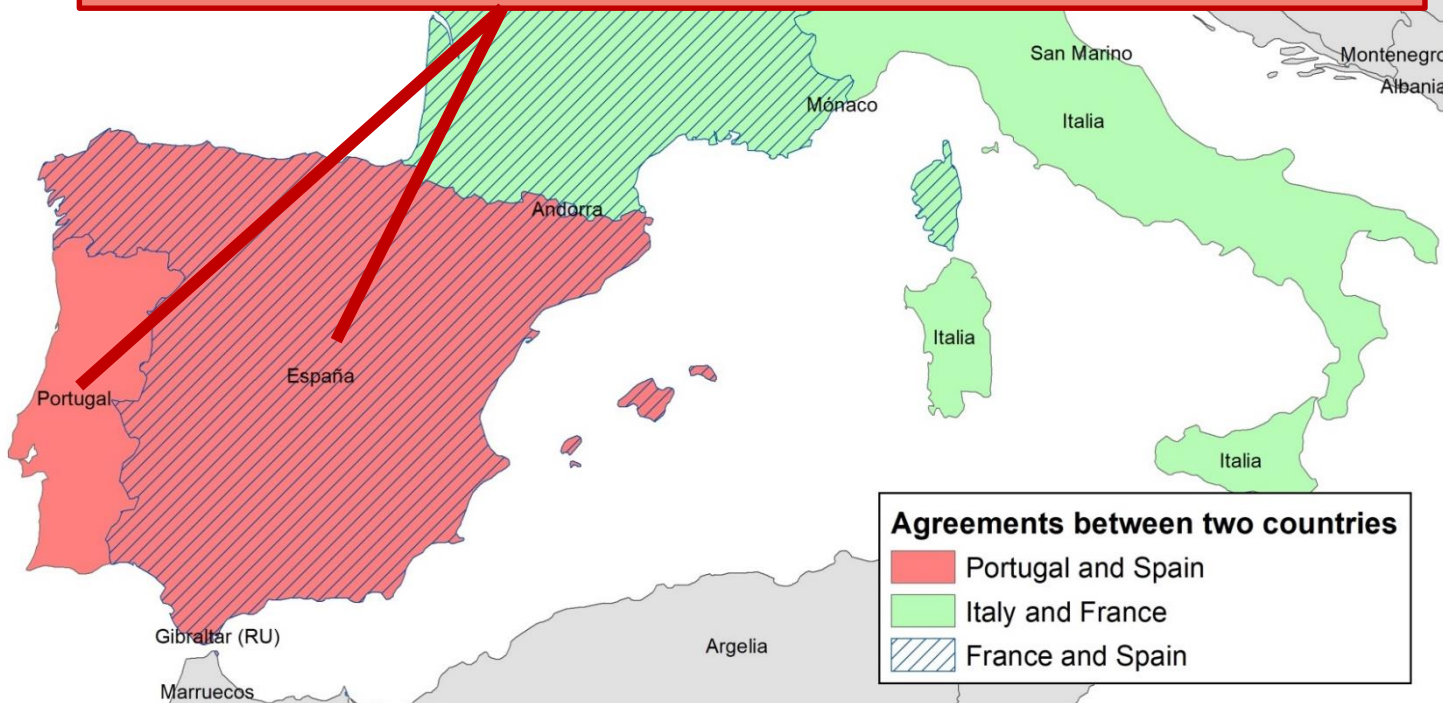
Fire fighting resources and their management

Country	France	Italy	Portugal	Spain
FIREFIGHTERS	-	Tuscany	-	Castilla y León
Professionals - National F&R serv.	Yes	Involved only for protecting infrastructure and population	Yes	Yes
Professionals - Regional*	No	Yes*	No	Yes
Volunteer	Yes; Included in the fire and rescue service	Yes independent organizations under regional coordination	Yes; Included in the fire and rescue service	No

* Forest workers completely independent from the National fire and rescue service.

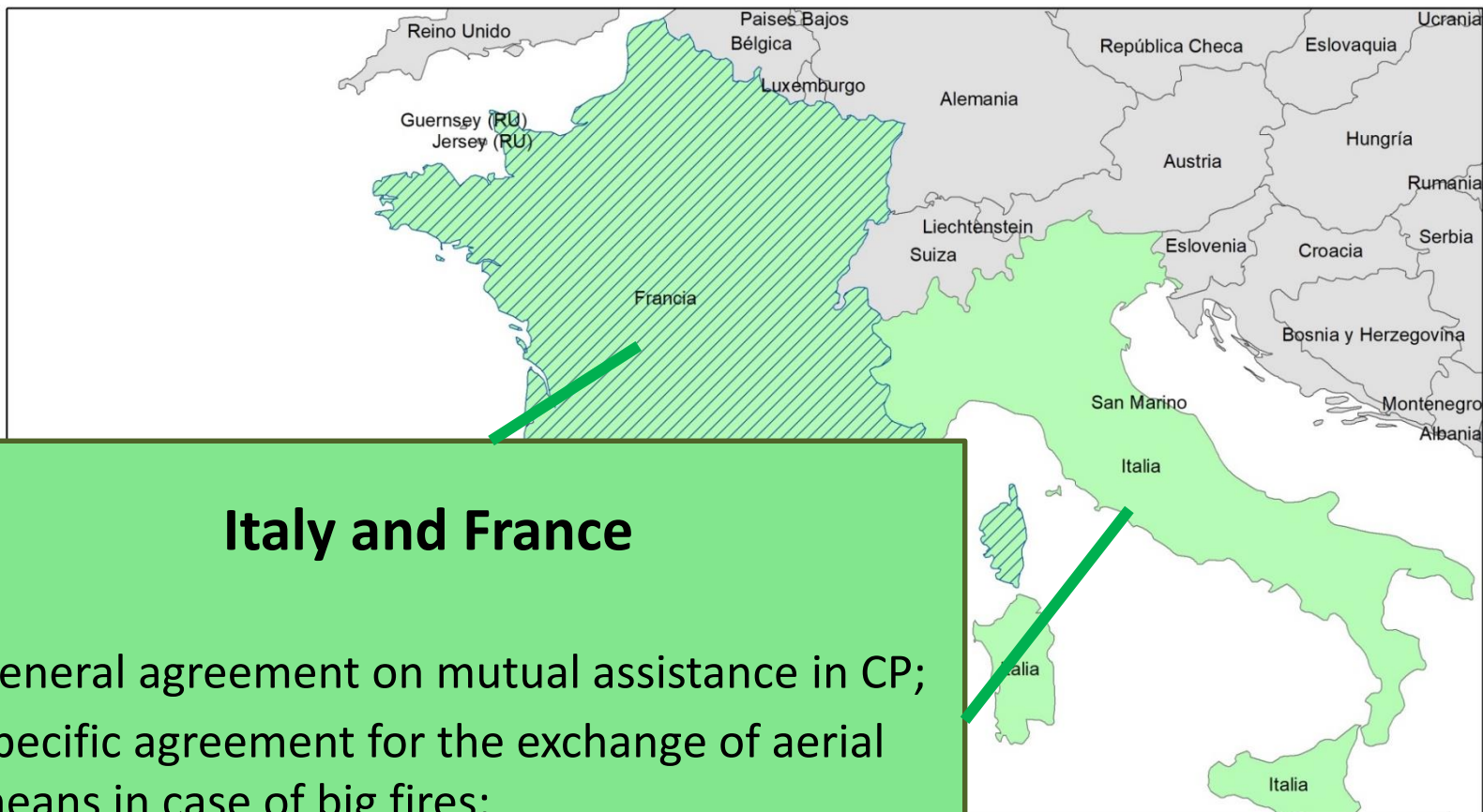
Portugal and Spain

- Automatic intervention (no request needed) in a buffer of 25 km from the border;
- Intervention in the entire country if requested;
- Both aerial and ground means involved if needed;
- Permanent information and technical collaboration



Existing agreements

Between countries



Italy and France

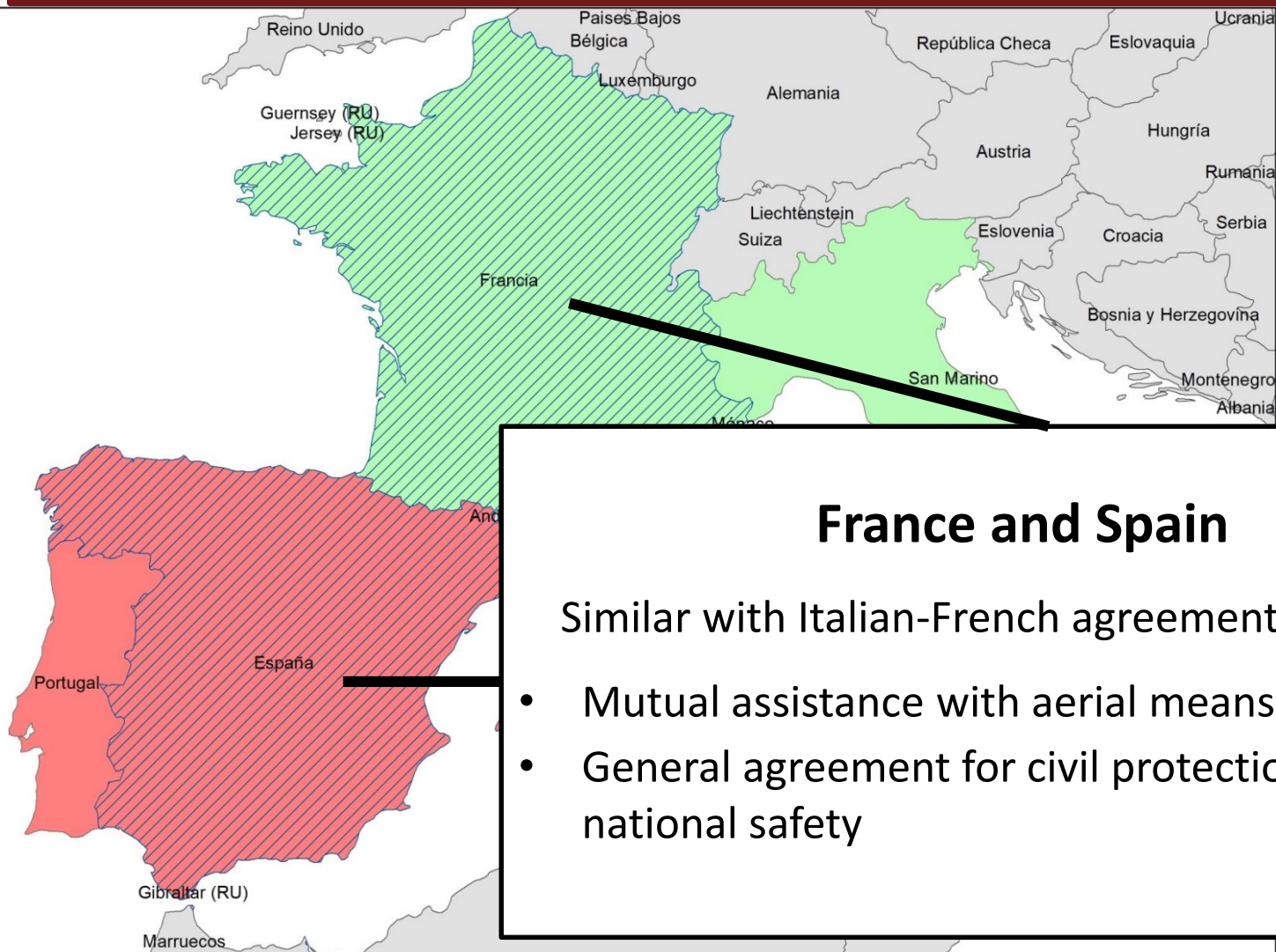
- General agreement on mutual assistance in CP;
- Specific agreement for the exchange of aerial means in case of big fires;
- Assistance given only if means are available (not operative in home country).

Agreements between two countries

-  Portugal and Spain
-  Italy and France
-  France and Spain

Existing agreements

Between countries

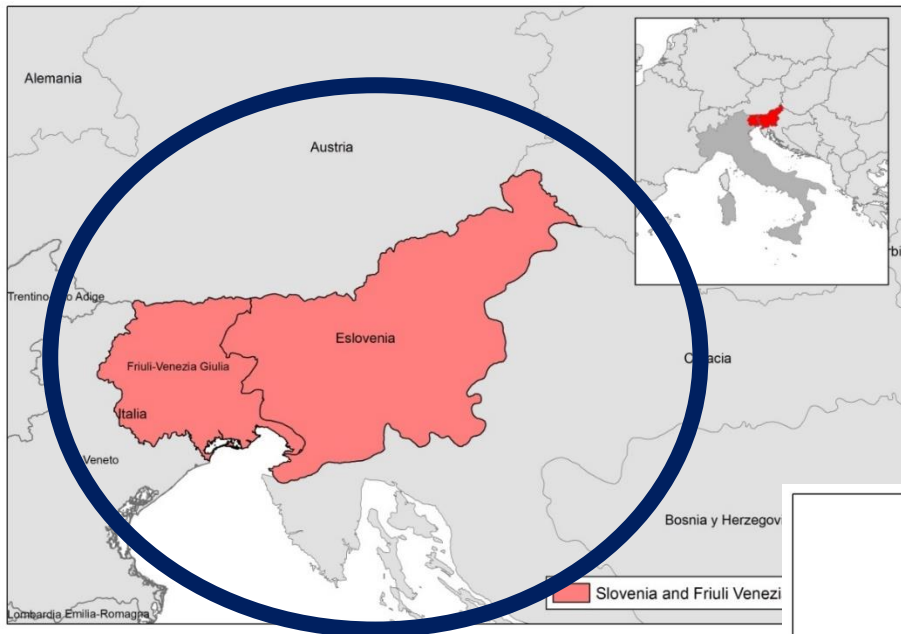


France and Spain

Similar with Italian-French agreement regarding:

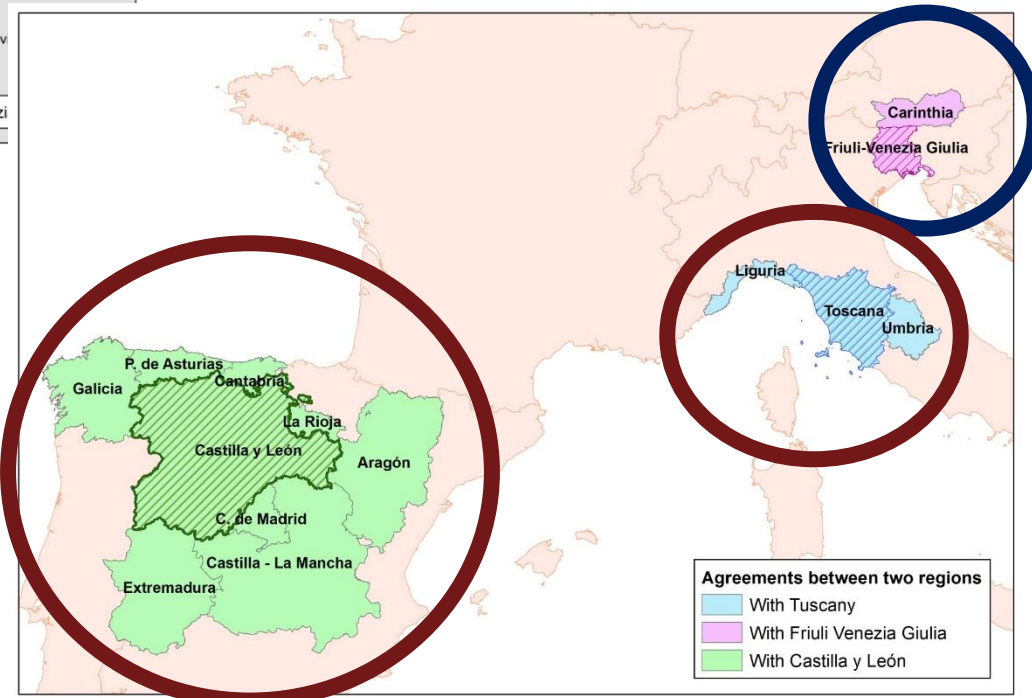
- Mutual assistance with aerial means;
- General agreement for civil protection and national safety

Existing agreements



Between a region
and a country

Between regions



**Existing
agreements**

Identification of strengths, weaknesses and needs

Standardization process and proposal of guidelines

**Common procedures for
cross-border interventions**

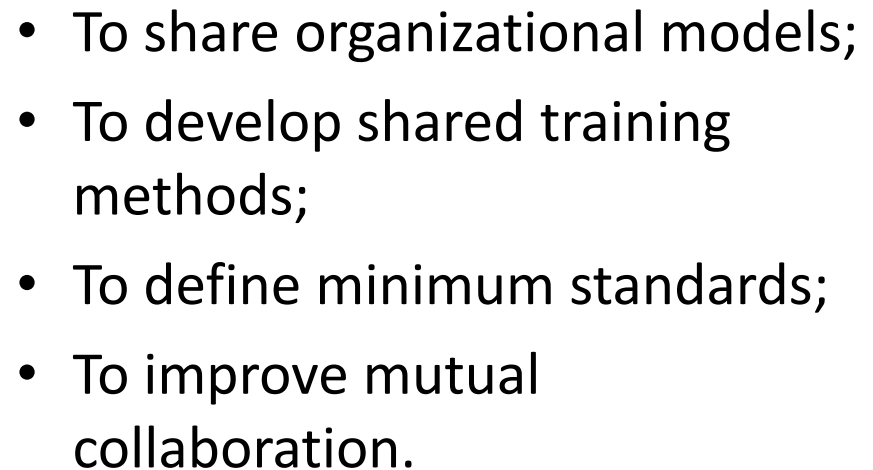
Deliverable C.3

**Standard
agreement and protocol**

Deliverable D.2

6 members
(new members are welcome)

Memorandum of Understanding



Training Standardization

Goals:

To identify all figures involved in firefighting activities and their specific role in the four partner countries/regions;

To perform a comparative analysis of the existing roles in each partner country, the training required for the qualification, the required prerequisites and the optional training that is available;

To develop minimum standard for the main figures

To propose a profile and training program for a EU Fire Officer in the field of forest fires.

Different roles and training qualifications - PORTUGAL

Role/Qualification	Portuguese designation	Training for qualification	Prerequisites (training or qualification)	Optional training
Incident commander	Comandante das operações de socorro	Command post - level 1 (50h)	Forest fires - level 5 (50h)	Operational logistics (25h) Communications (25h) Decision making technics (25h)
Operations section leader	Oficial de operações			
Logistics section leader	Oficial de logística			
Planning section leader	Oficial de planeamento			
Aerial operations coordinator	Coordenador de operações aéreas	Aerial operations - level 2 (25h)	Aerial operations - level 1 (25h)	-
Sector leader	Comandante de setor	Forest fires - level 5 (50h)	Forest fires - level 4 (50h)	-
Group leader	Chefe de grupo	Forest fires - level 4 (50h)	Be a fire officer Personal safety and fire behavior (25h)	-
Brigade leader	Chefe de brigada	Forest fires - level 3 (35h)	Forest fires - level 2 (25h)	-
Team leader (1truck)	Chefe de equipa	Forest fires - level 2 (25h)	Forest fires - level 1 (50h)	Personal safety and fire behavior (25h) Forest fires assessment team (35h) Drip torch operator (50+50h)
Team member	Bombeiro	Forest fires - level 1 (50h)	Basic fire fighter training	-
Fire engine driver	Motorista	CFE1 (35h)	Basic fire fighter training	-
Helitack operator	Brigada helitransportada	BHT1 (70h)	Basic fire fighter training	-

Different roles and training qualifications - FRANCE

Role/Qualification	French designation	Training for qualification	Prerequisites (training or qualification)	Optional training
Incident commander	Commandant des opérations de secours	FdF5 (70h)	FdF4 Rank of major (Commandant)	
Operations section leader	Officier action/trans	FdF4 (73h)	FdF3	
Logistics section leader	Officier moyens/log	FdF3 (83h)	FdF2	
Planning section leader	Officier anticipation	FdF4 (73h)	FdF3	
Sector leader	Chef de colonne (more than 2 groups)	FdF4 (73h)	FdF3	
Group leader	Chef de groupe (max 8 trucks)	FdF3 (83h)	FdF2 Be a fire officer (Lieutenant)	
Team leader	Chef d'agrès	FdF2 (34h)	FdF1	
Team member	Chef d'équipe, équipier	FdF1 (32h)	To be a firefighter	
Fire engine driver	Conducteur	COD2 (40h)	FdF1	
Aerial operations coordinator	Officier aéro	AERO 3 (16h)	FdF4	
Helitack operator	Équipier de détachement d'intervention hélicopté	DIH1 (30h)	FdF1	
Helitack team leader	Chef de groupe d'intervention hélicopté	FdF3 (83h) DIH1 (30h)	FdF2 DIH1	

Different roles and training qualifications – CASTILLA Y LEÓN (1)

Role/Qualification	Spanish designation	Training for qualification	Prerequisites (training or qualification)	Optional training
Incident commander	Director técnico de extinción	TEC.1 (60h)	Forest engineer	TEC.2 (50h)
Incident commander (first attack only)	Jefe de extinción	AGM.1 (45h)	Title of senior technician in management and organization of natural or landscape resources	AGM.2 (35h) AGM.3 (24h)
Operations section leader	Jefe de operaciones	TEC.1 (60h)	Forest engineer	TEC.2 (50h)
		AGM.1 (45h)	Title of senior technician in management and organization of natural or landscape resources	AGM.2 (35h) AGM.3 (24h)
Logistics section leader	Jefe de logística	TEC.1 (60h)	Forest engineer	TEC.2 (50h)
Planning section leader	Jefe de planificación	TEC.1 (60h)	Forest engineer	TEC.2 (50h)
Sector leader	Jefe de sector	TEC.1 (60h)	Forest engineer	TEC.2 (50h)
		AGM.1 (45h)	Title of senior technician in management and organization of natural or landscape resources	AGM.2 (35h) AGM.3 (24h)
Group leader	Jefe de grupo	AGM.1 (45h)	Title of senior technician in management and organization of natural or landscape resources	AGM.2 (35h) AGM.3 (24h)
Team leader	Capataz de cuadrilla de tierra	CAP.0 (14h) Update – CAP.1 (7h)	Average or higher degree in achievement and conservation of the natural environment CUA.0 (14h)	-
Team member	Peón de cuadrilla de tierra	CUA.0 (14h)	Basic primary studies	-
Fire engine driver	Conductor de autobomba	AUT.0 (14h) Update – AUT.1 (7h)	General certificate of education/vocational education and training	-
Aerial operations coordinator	Coordinador de medios aéreos	TEC.7 (50h)	Forest engineer	-

Different roles and training qualifications – CASTILLA Y LEÓN (2)

Role/Qualification	Spanish designation	Training for qualification	Prerequisites (training or qualification)	Optional training
Helitack operator	Peón de cuadrilla helitransportada	HTCUA.0 (14+7h)	Basic primary studies	-
Helitack team leader	Responsable de cuadrilla helitransportada	REL.1 (14h) Update - REL.2 (7h)	Forest engineer	-
Helicopter pilot	Piloto de helicóptero	PHT.0 (7 h)	Pilot license Qualification for the type of aircraft Agroforestal pilot certificate	-
Fire watchman	Vigilante de incendios	VIG.0 (6h)	Basic primary studies	-
Heavy machinery driver	Conductor-maquinista	MAQ.0 (14h) Update – MAQ.1 (7h)	-	-
Staging area manager	Jefe del área de espera	AGM.1 (45 h)	Title of senior technician in management and organization of natural or landscape resources	AGM.2 (35h) AGM.3 (24h)
Fire engine assistant	Peón ayudante de autobomba	AUT.0 (14h) Update – AUT.1 (7h)	Basic primary studies	-
Liaison officer	Oficial de enlace e información	TEC.1 (60h)	Forest engineer	TEC.2 (50h)

Different roles and training qualifications – REGIONE TOSCANA

Role/Qualification	Italian	Training for qualification	Prerequisites (training or qualification)	Optional training
Incident commander	Direttore operazioni antincendi boschivi	DO AIB training (48h)	To be a forest technician (public employee who operates in forest sector)	Fuel management (8h) Safety for operator (8h) Driver (24h) Prescribed fire manager (24h)
Operations section leader	Assistente direttore operazioni antincendi boschivi			
Logistics section leader	Logista antincendi boschivi	Logistic man training (24h)	To be a fire fighter – 5 years' experience in forest fires fighting	Safety for operator (8h)
Group leader	Responsabile gruppo antincendi boschivi	Responsible group training (24h) Drip torch training (24h)	To be a fire fighter – 5 years' experience in forest fires fighting	Safety for operator (8h) Driver (24h)
Team leader	Caposquadra	Firefighting operator training (24h)	3 years' experience in forest fires fighting	-
Team member	Operatore Antincendi Boschivi	Firefighting operator training (24h)	To be a forest worker (public employee who operates in forest sector)	Safety for operator (8h) Driver (24h) Chainsaw (16h) (only for volunteer operator)
Fire engine driver	Guidatore pick up	4x4 driver training (24h)	-	-
Fire watchman	Vedetta	Fire watchman training (16h)	-	-
Heavy machinery driver	Guidatore autobotte	Heavy machinery driver training (24h)	4x4 driver training (24h)	-
Operational room coordinator	Coordinatore operativo di sala antincendi boschivi	COS AIB training (16h)	-	DO AIB training (48h)
Operational room operator	Addetto di sala antincendi boschivi	Room operator training (16h)	-	Firefighting operator training (24h)

Roles and trainings for fire fighters

Portugal

France

Training and prerequisites for training are related to the ranks of the fire brigade members.

In general, it is necessary to be qualified with the lower training level in order to be admitted in the next level

Some training levels are reserved for fire officers.

**from 25 to 70 hours per
course**

**from 16 to 83 hours per
course**

Roles and trainings for fire fighters

Tuscany Region (ITA)

Castilla y Leon (ESP)

In this regions the access to training is mainly addressed to forest workers or volunteers, technicians and specialists graduated in the forest and environmental areas.

In general, the higher level training is reserved to forestry engineers or other public executive in the forest sector.

Training duration

**from 8 to 48 hours per
course**

Training duration

**from 7 to 70 hours per
course**

MEFISTO's proposal of standardization

5 Figures
for forest fire fighting



Definition of

**Minimum standards of
skills and competences**

**Standard contents of
training programs**

Incident Commander

**Logistics Section
Leader**

Group Leader

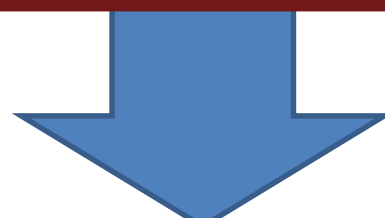
Team Leader

Team Member

MEFISTO's proposal of standardization



A new figure to enhance cross border collaboration



The European Forest Fire Officer

EUFO

European Forest Fire Officer (EUFO)

A figure capable of performing the following tasks:

- **Liaison officer** in major fires;
- **External force leader** in a transboundary mission;
- **Added value** of common knowledge (at European level) in major fires (advisory function).

Target audience: **fire officers** appointed by national or regional authorities.

Prerequisites: the trainees must be qualified with **academic and/or technical training** in the area of forest fires and to have a recognized **professional experience** in operations management and command of forces.

European Forest Fire Officer (EUFO)

Knowledge

Operational procedures

European Union Mechanism

Cartography

Host Nation Support Guidelines for operational deployments inside the EU

Big fire management

Cooperation agreements

Training organization and competences of involved figures

Command chain

Knowledge of foreign firefighting organizations

Skills

To interact with several figures of command chain

Liaison officer

Logistics for foreign forces

English speaking (and/or local language)

Attitudes

Leadership and communication

EUFO's training program

- EU civil protection mechanism;
- Forest fire fighting organization in Italy, France, Spain and Portugal;
- Existing bilateral agreements;
- Leadership and communication;
- Communication tools and methods (referring to different countries);
- Standardized figures at EU level (developed in MEFISTO project);
- Forest fire cartography and mapping;
- Fire management system;
- Big fire management;
- Exercise (simulator and in-field).

Pilot training course MEFISTO → 12 attendants (3 from each partner country)

European Forest Fire Officer

Implementation and organization

Pilot training course



Pilot exercise

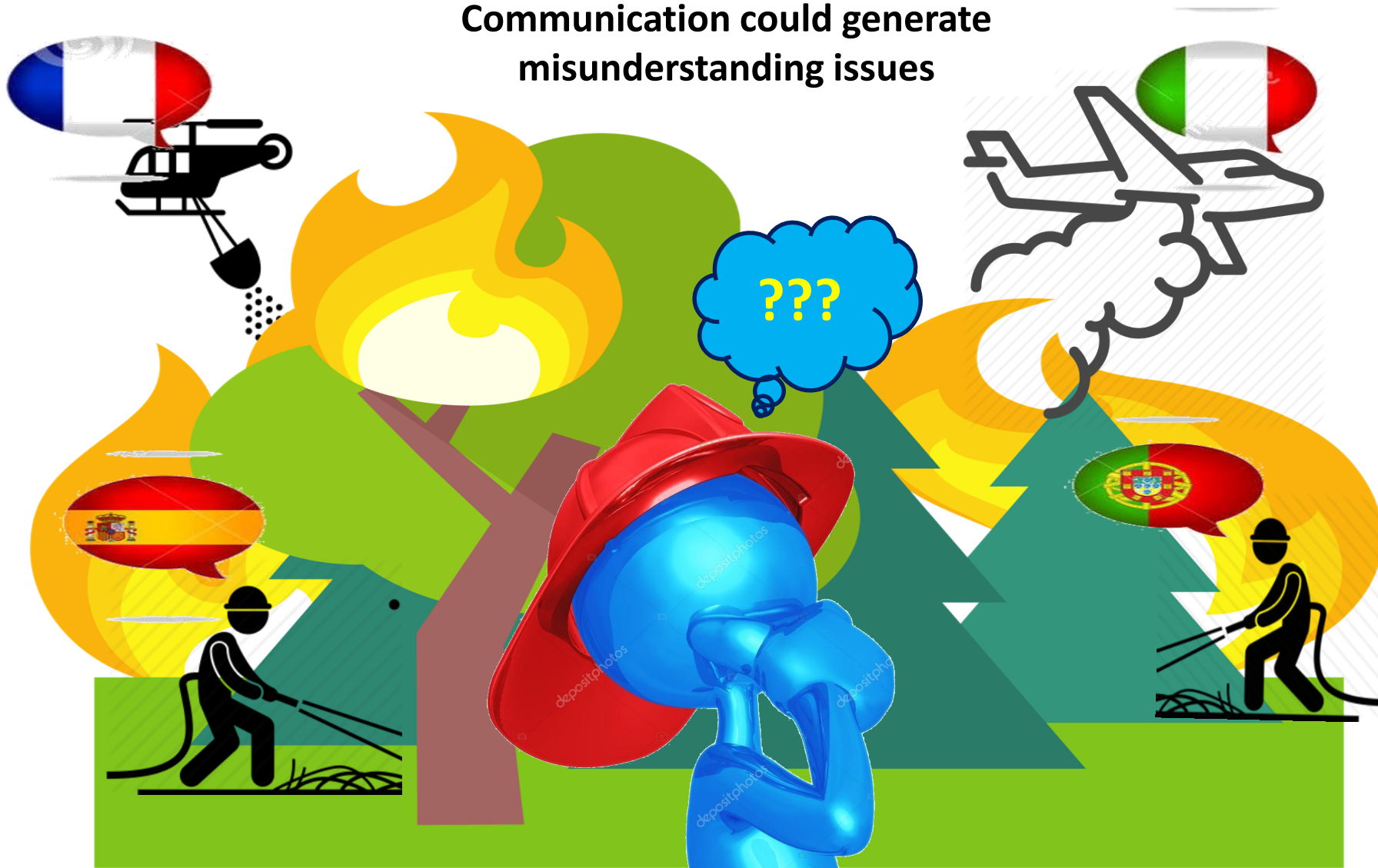
EUFOs

EUFO – pilot training course



During cross border collaboration

Communication could generate
misunderstanding issues



Development of the glossary

www.mefistoforestfires.eu

Existing glossaries

EUFOFINET
European Forest Fire Networks

European Glossary
for WILDFIRES AND FOREST FIRES
OCTOBER 2012 (1st Edition)

F.I.R.E. 4 Project
Co-financed by the European Commission
DG Environment
Civil Protection Unit

**Forest Fire Fighting Terms
Handbook**

**ALPINE
FOREST FIRE
GLOSSARY**

English • French • Italian • German • Slovenian

NEW TERMS & DEFINITIONS



Forest Fires Multilingual Glossary



5 versions



Italian term	Italian definition	English term	English definition	Fr - PT - SP
Schiuma	Una massa di bolle formate miscelando proporzioni specifiche di aria con una miscela di acqua e schiumogeno. Può essere applicato per soffocare e raffreddare parti di un incendio e / o per impedire l'accensione di un combustibile.	Foam	A mass of bubbles formed by mixing specific proportions of air with water and a foam concentrate. It can be applied to smother and cool parts of a fire and / or to prevent ignition within a fuel.	Mousse - Espuma - Espuma
Scintilla	Una particella infiammata emanata dal materiale in combustione.	Spark	An ignited particle thrown from burning material.	Étincelle - Faisca - Chispa
Scottatura	Termine riferito in ambito antincendio alle foglie strinate dal calore dell'incendio. Le foglie scottate assumono un aspetto "bruno" apparentemente necrotico ma non consumato dal fuoco.	Scorch	Plant foliage with a "browned" appearance that has been killed but not consumed by fire.	Roux - Chamuscada (queimada) - Chamuscado
Scottature della chioma	Quando le foglie di una chioma di albero o arbusto risultano morte ma non consumate a causa dell'azione della fiamma. Il disseccamento della chioma può non essere visibile immediatamente e può manifestarsi diversi giorni o settimane dopo che il fuoco si è manifestato.	Crown scorch	Browning of needles or leaves in the crown of a tree or shrub due to burning which has killed but not consumed the vegetation. Crown scorch may not be visible immediately and it may take several days or weeks after the fire for it to become apparent.	Roussissement de la cime - Queima da copa/Dissecação da copa - Soflamado de copas
Seguire le curve di livello	Pianificare e percorrere un tracciato che segue le curve di livello. Questo approccio spesso è più sicuro del percorrere tracciati a rittochino o in pendenza, in particolare in terreni accidentati o con gravi condizioni climatiche.	Contouring	Planning and walking a route which follows the path of contour lines. This approach can often be safer than walking a route which intersects contour lines, particularly in rough terrain or during severe weather conditions.	Suivi de courbe de niveau - Contorno - Contornear



Terms & definitions in English, and related translations in 4 languages



Free App

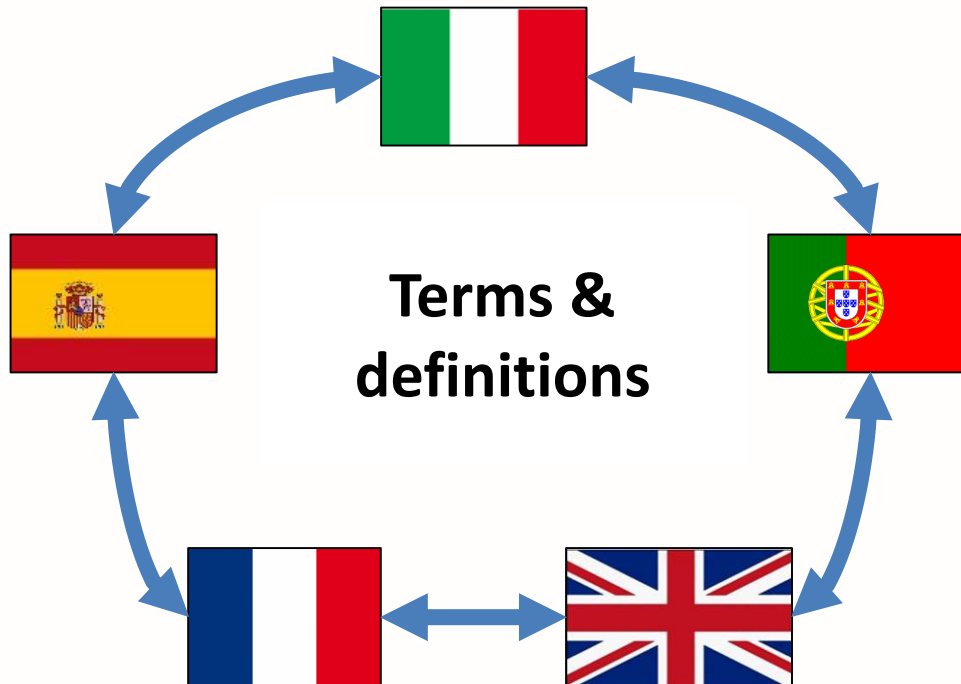


Download on the
App Store



GET IT ON
Google Play

- English
- French
- Spanish
- Italian
- Portuguese




Glossario degli incendi bosc...



Inserire il termine desiderato nel campo di ricerca

è possibile utilizzare varie lingue disponibili

Tipo di ricerca

Terminale 

RICERCA

UNIVERSITÀ
DEGLI STUDI
FIRENZE

ESCOLA NACIONAL DE
BOMBEIRO

[cese**for****]**



VALABRE
ÉCOLE D'APPLICATION DE SÉCURITÉ CIVILE





Thank You

www.mefistoforestfires.eu