



Generalitat de Catalunya
Departament
d'Interior



Bioeconomy and wildfires

A fire-fighter approach



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bombers

CC: New emergency management scenario

□ Solsonès 1998: 19.000ha en 12h (1.500ha/h)

- 90's Mitjana de 10.000 ha/dia crític
- 00's Mitjana de 1.700ha/dia crític

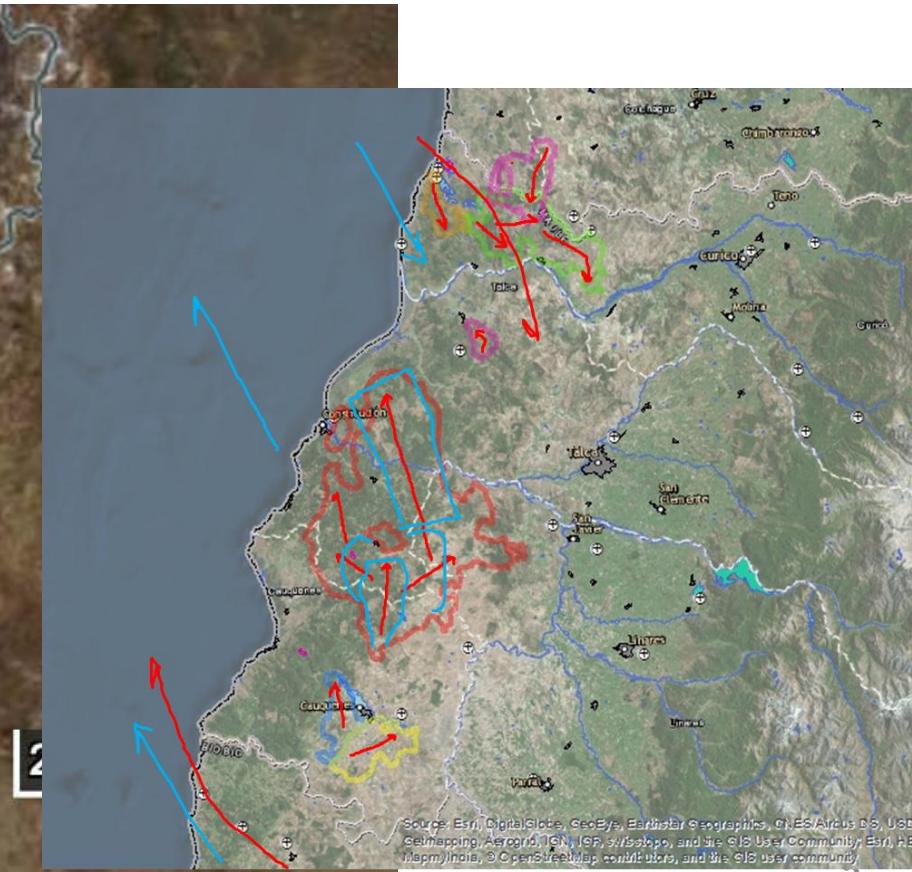
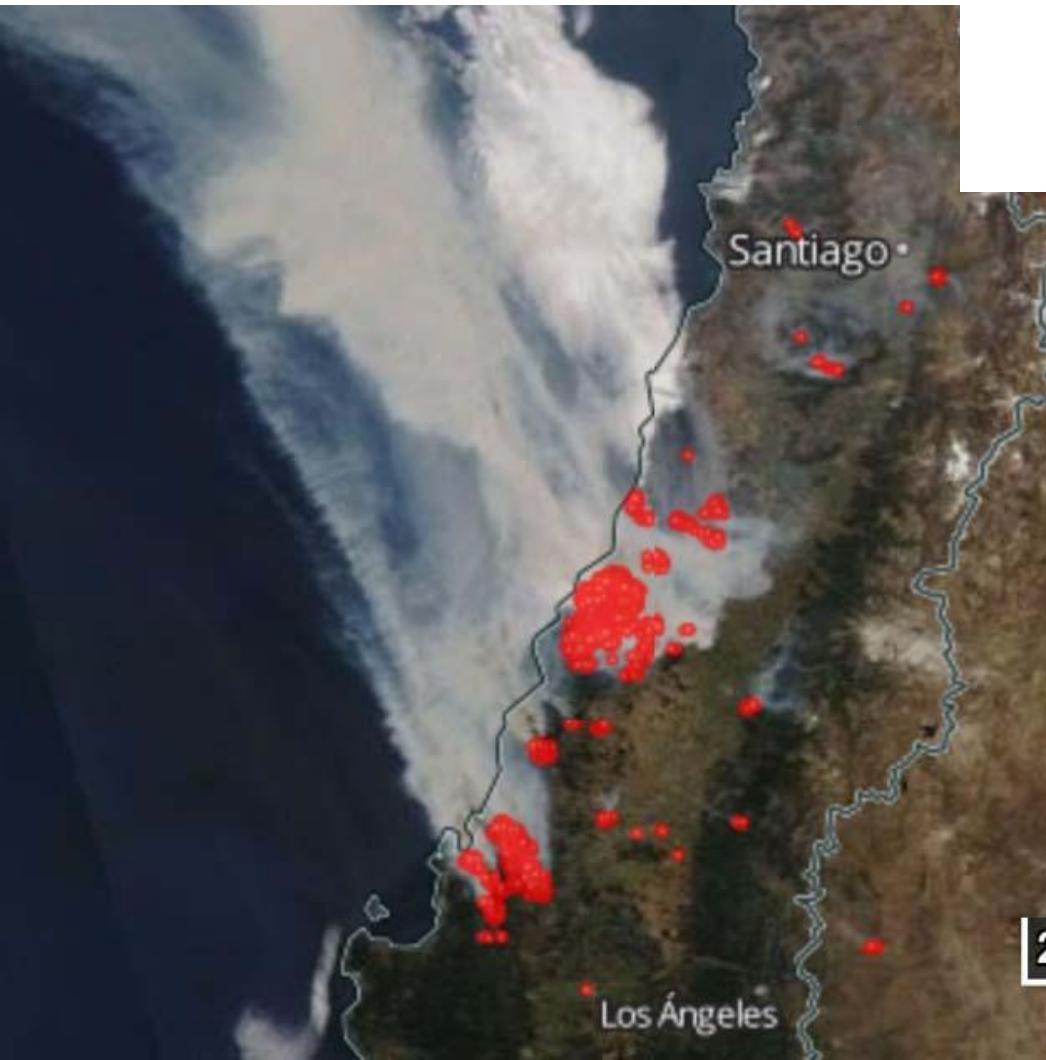
□ La Jonquera 2012: 8.000ha en 7h (1.100ha/h), 7.7km/h





CC: New emergency management scenario

- Feb Chile: Las Máquinas 100.000 ha/dia (11m)
- June Portugal: Pedrogao Grande 18km/21min = 70km/h
- Set-oct California and Portugal



2

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, IGP, SRTM, and the GIS User Community; Esri, HERE, MapmyIndia, © OpenStreetMap contributors, and the GIS user community.

CC: New emergency management scenario



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Vieira de Leiria, Portugal,
Octubre 15, 2017. 49m

CC: New emergency management scenario

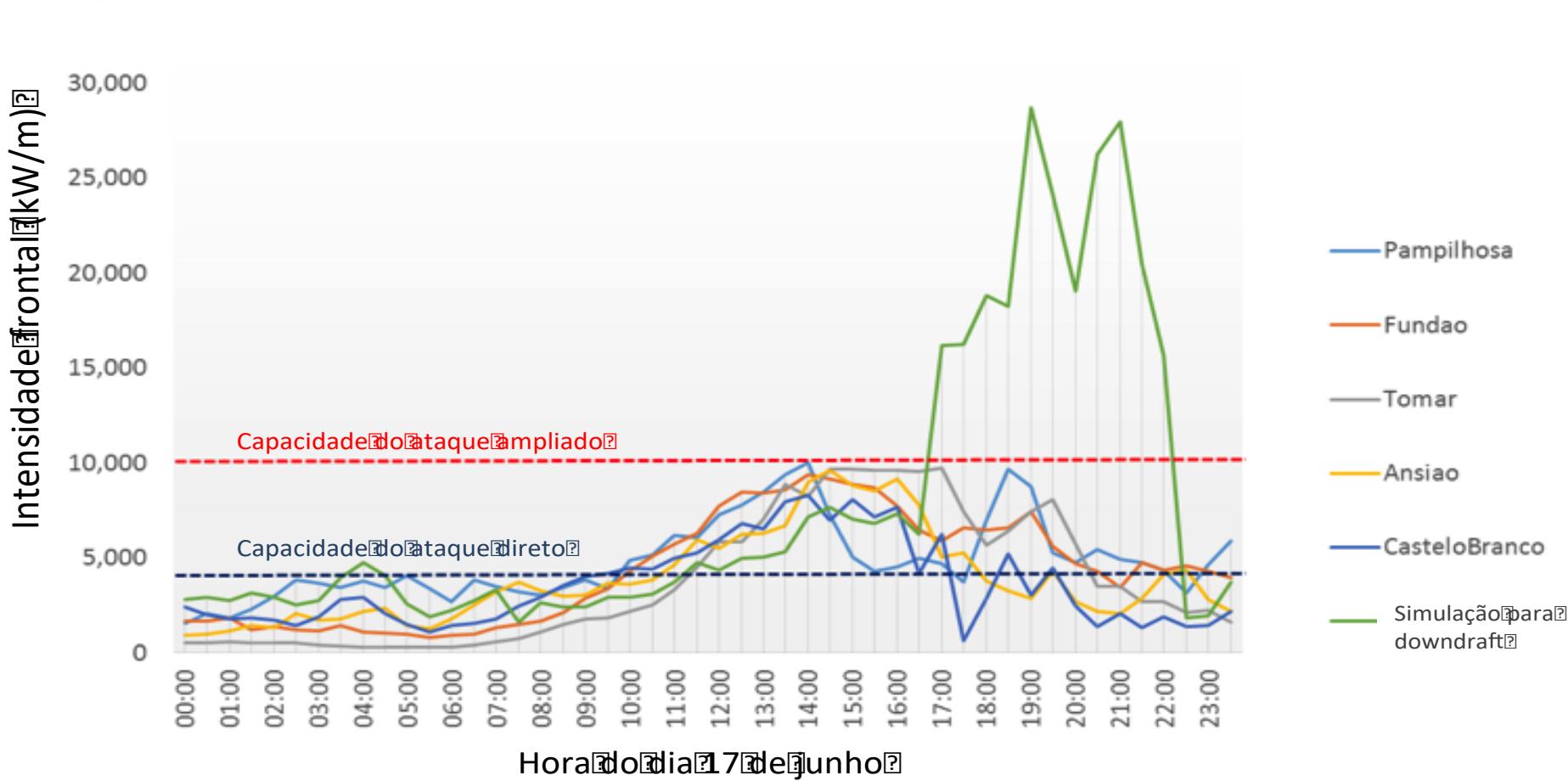


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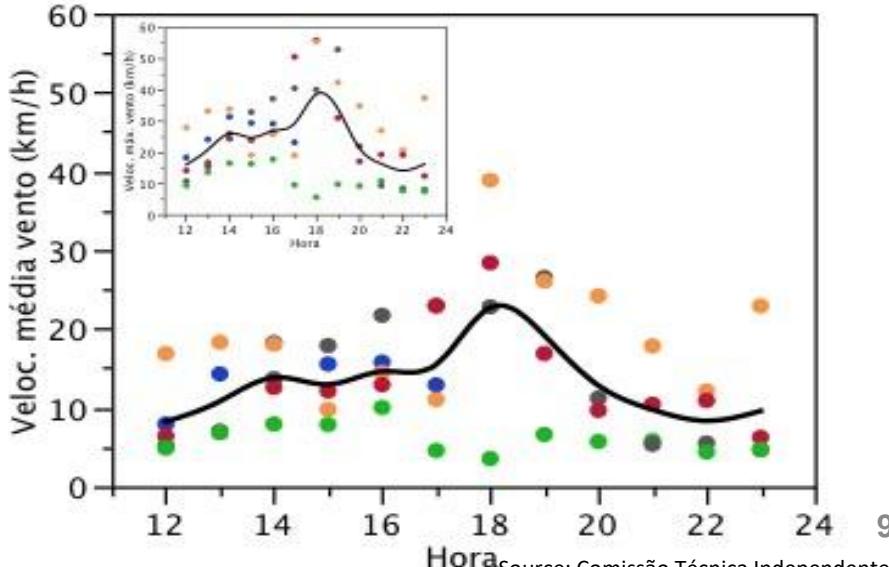
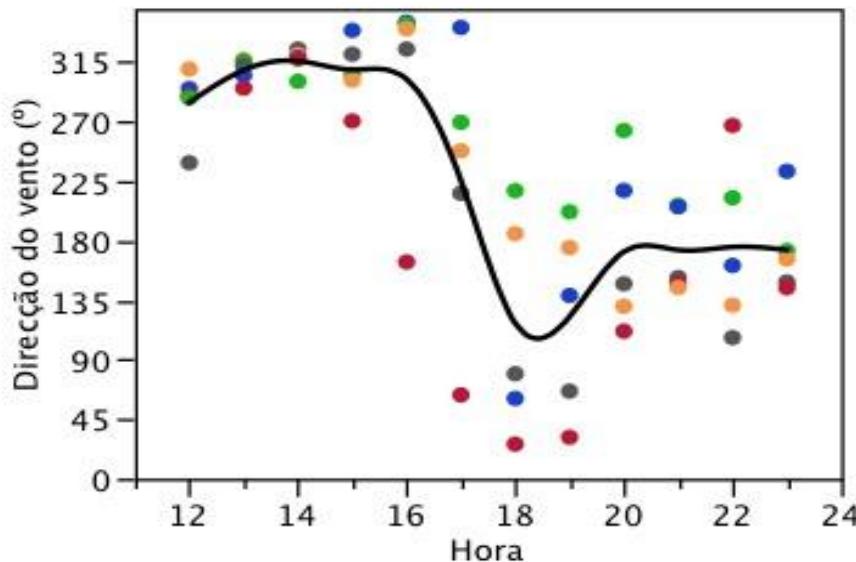
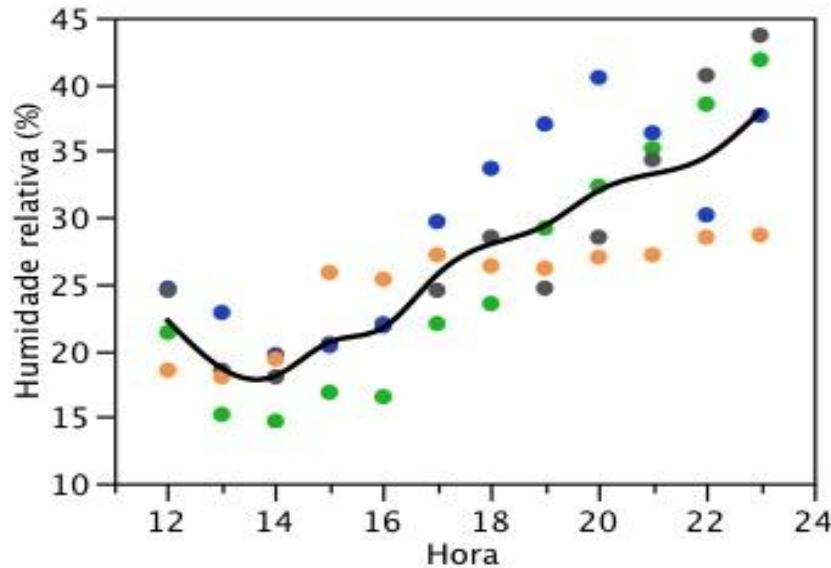
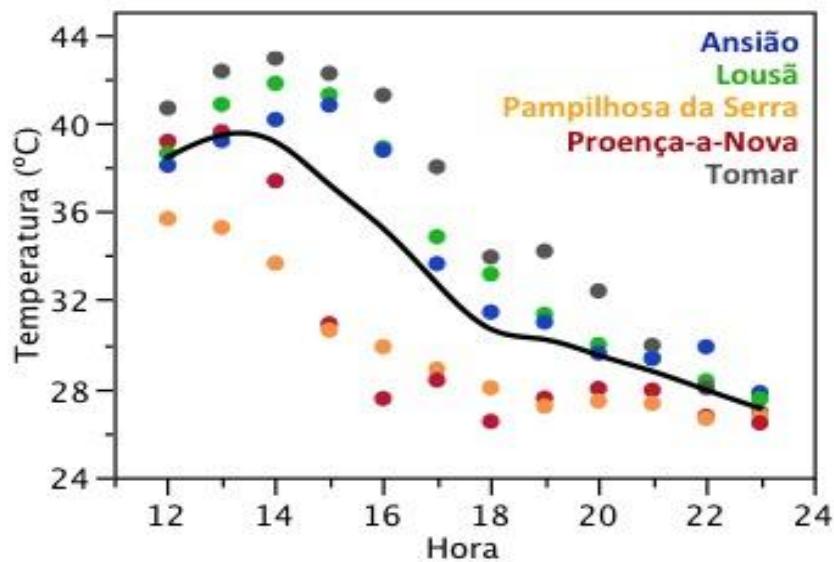
Pedrogao Grande 17/06/17
64m. 18 km en 21 min = 70km/h

CC: New emergency management scenario



Source: Comissão Técnica Independente. 2018b. Análise e apuramento dos factos relativos aos incêndios que ocorreram em Pedrogão Grande, Castanheira de Pera, Ansião, Alvaiázere, Figueiro dos Vinhos, Arganil, Góis, Penela, Pampilhosa da Serra, Oleiros e Sertã, entre 17 e 24 de junho de 2017. Assambleia da Republica Lisboa.

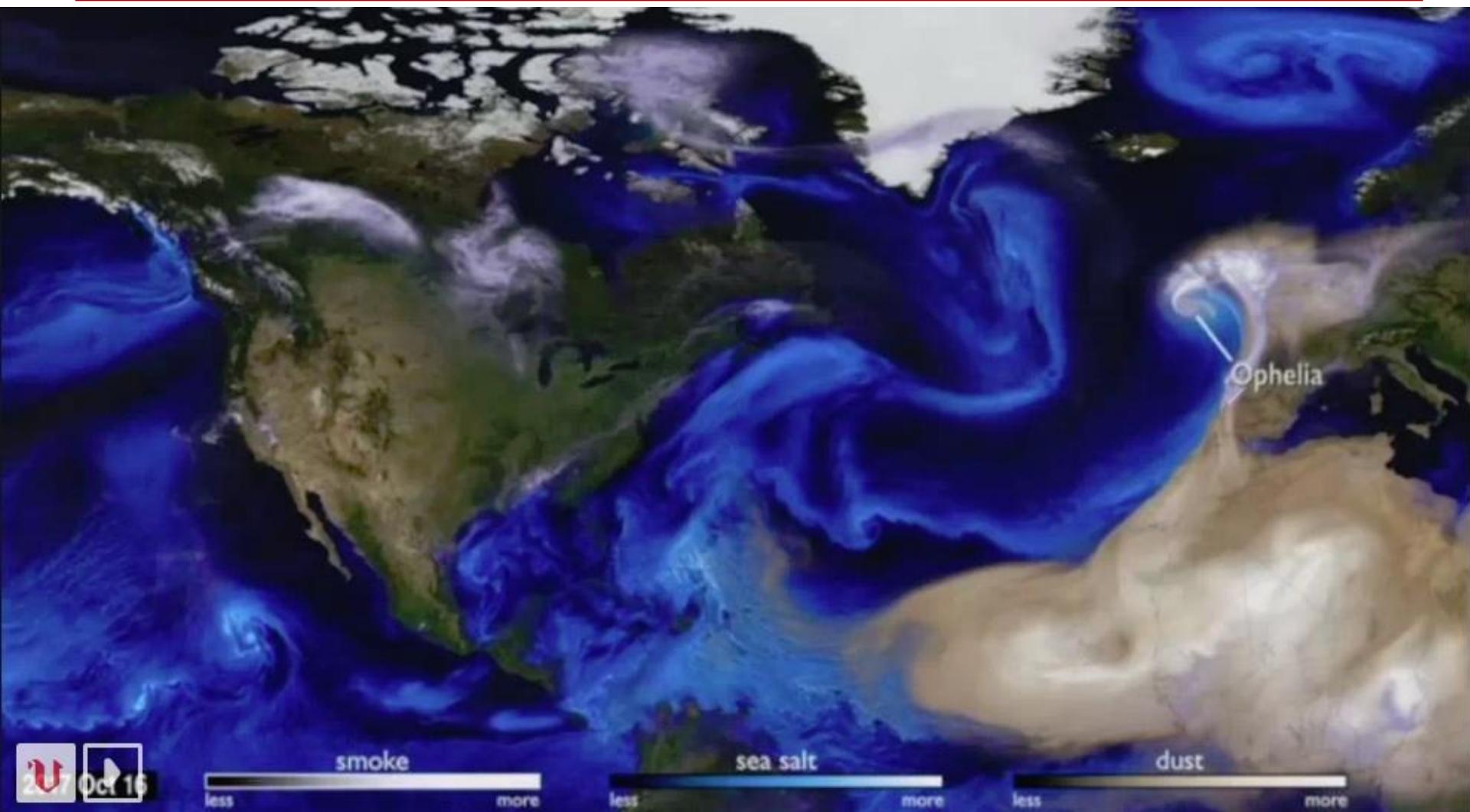
CC: New emergency management scenario



CC: New emergency management scenario



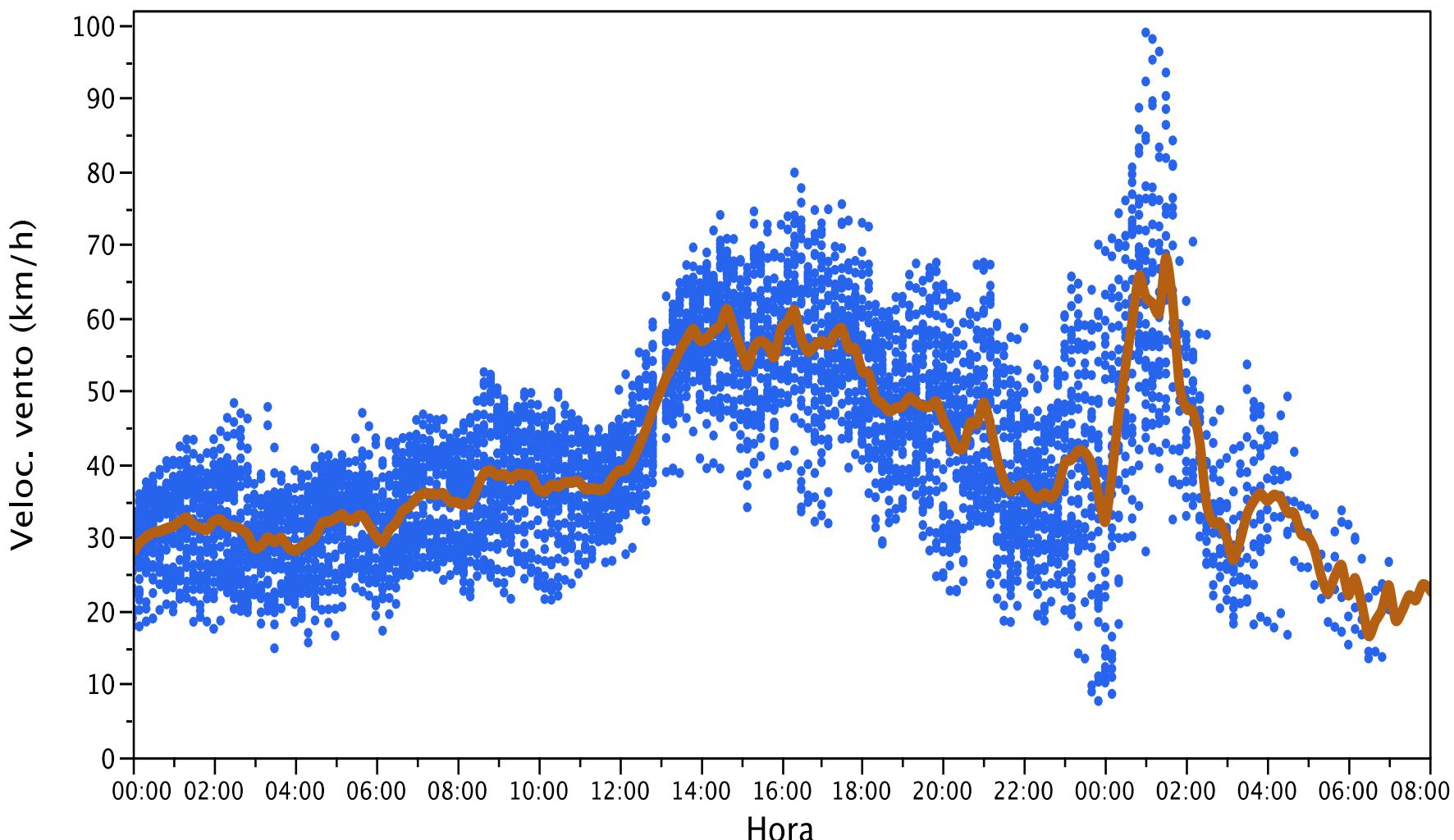
CC: New emergency management scenario



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CC: New emergency management scenario



CC: New emergency management scenario

Yes, we are a risky sector... SURE!



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Oct 2017 38m+71f

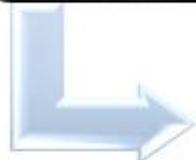
Source: Comissão Técnica Independente. 2018a.*

How we understand OUR wildfires problem?



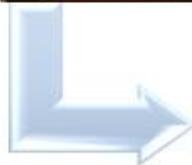
1st

- Continuity



2nd

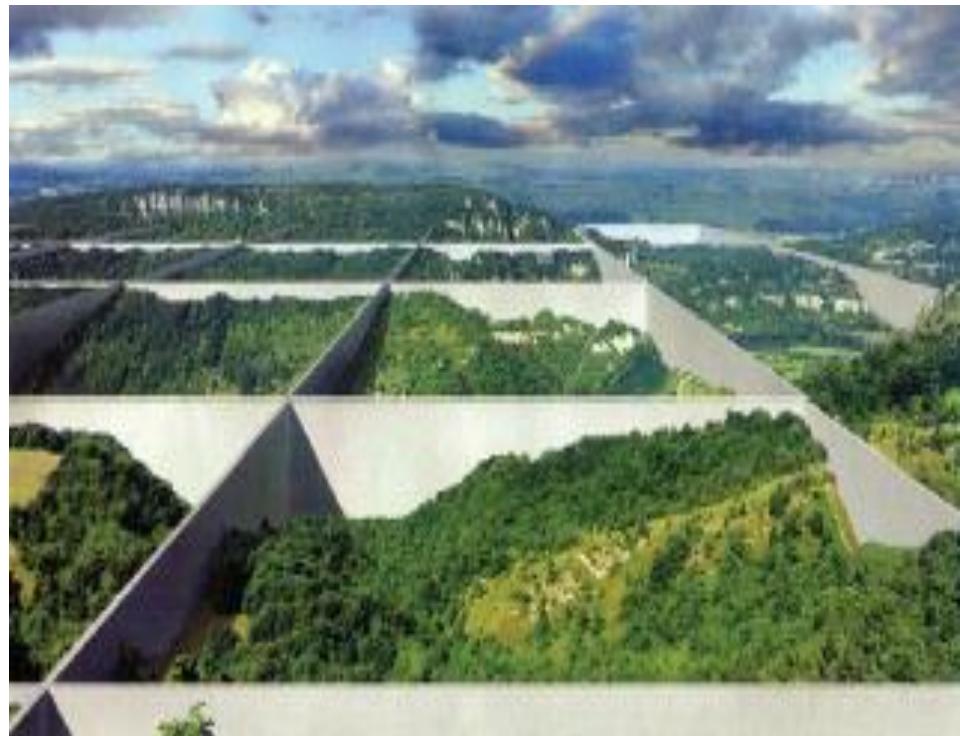
- Rate of spread



3rd

- Intensity

1st GEN Fuel continuity > fuel-breaks



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2nd GEN High rate of spread> hard initial attack



3rd GEN High intensity and crown fires > GIF & analysis



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3rd GEN High intensity and crown fires > GIF & analysis

Fire spread speed higher than fire suppression (0,5-2 km/h)



Fire intensity (flame lenght) > 3-6 m



Fire spread by points rather than continuously



Crown fire



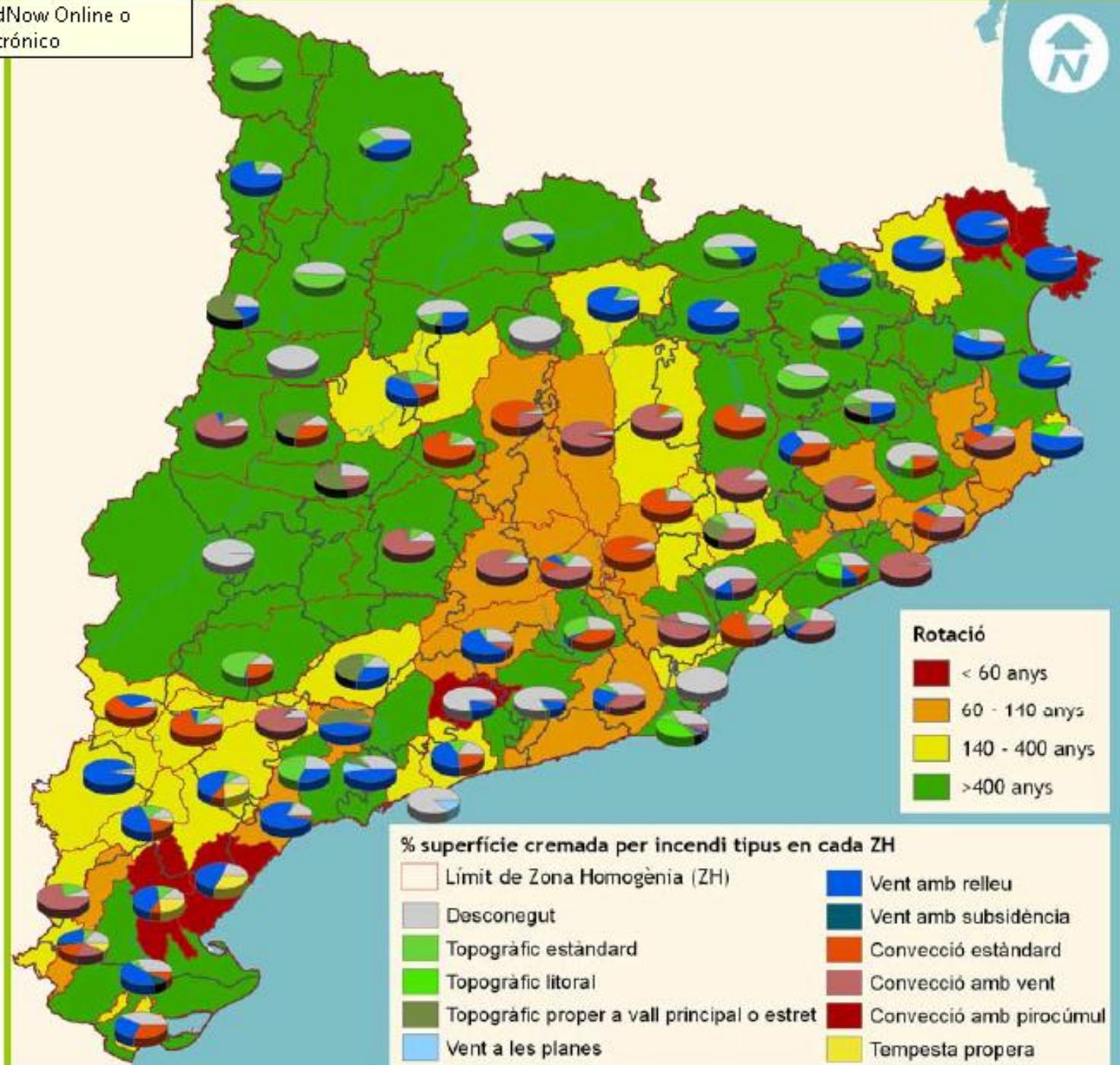


Figura 15. Perímetres d'incendi a

3rd GEN High intensity and crown fires > GIF & analysis



3rd GEN High intensity and crown fires > GIF & analysis

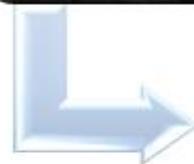


How we understand OUR wildfires problem?



1st

- Continuity



2nd

- Rate of spread



3rd

- Intensity



4th

- WUI

4th GEN wildland-urban interface



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4th GEN wildland-urban interface

Canvi en la normativa. Consciència del risc Ordenació del territori



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4th GEN wildland-urban interface

Canvi en la normativa. Consciència del risc Ordenació del territori



Self-protection fire
management guide

RISK
AWARENESS



Self-protection fire
management guide

PREPARING THE PROPERTY



Self-protection fire
management guide

SURVIVING A FOREST FIRE

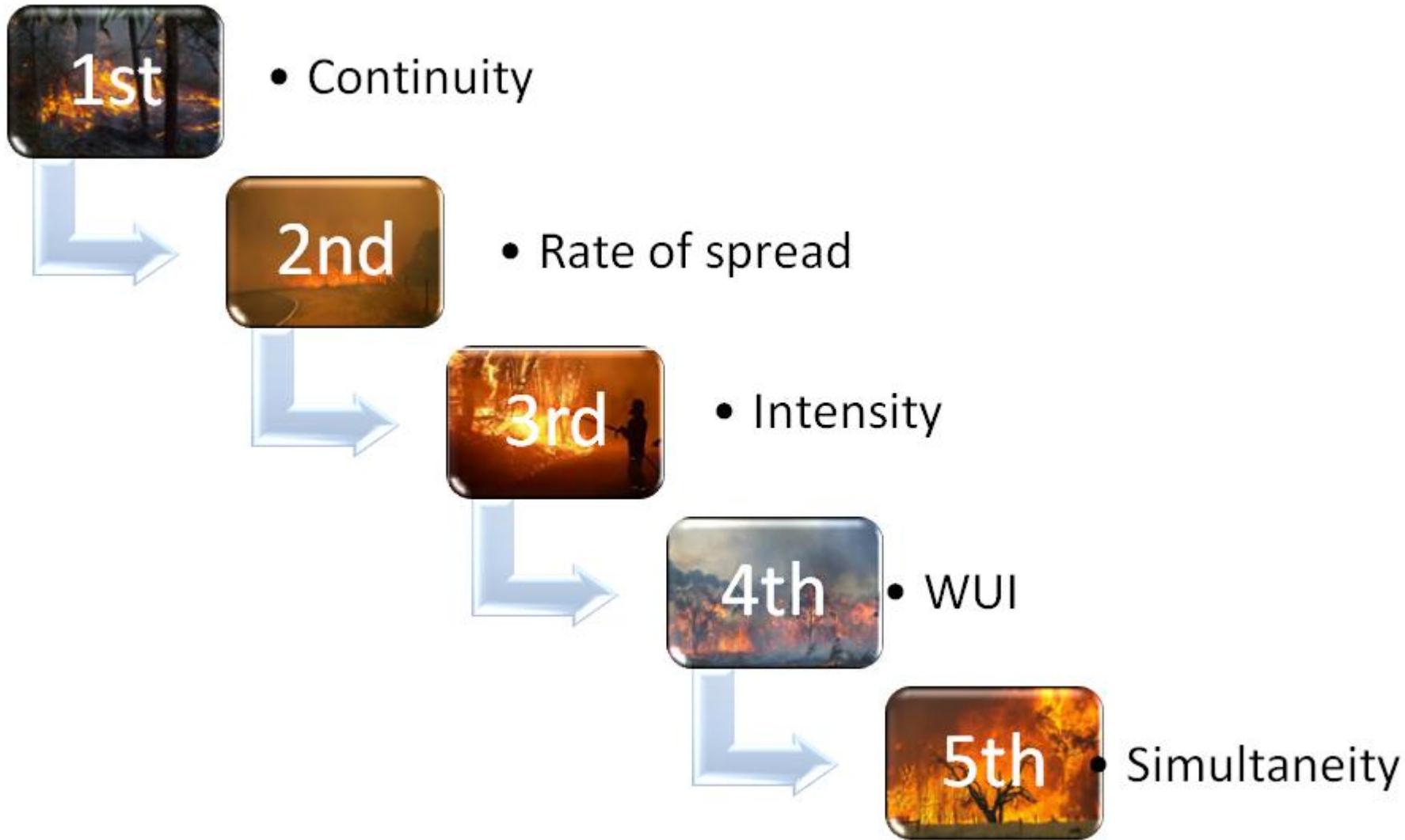


4th GEN wildland-urban interface

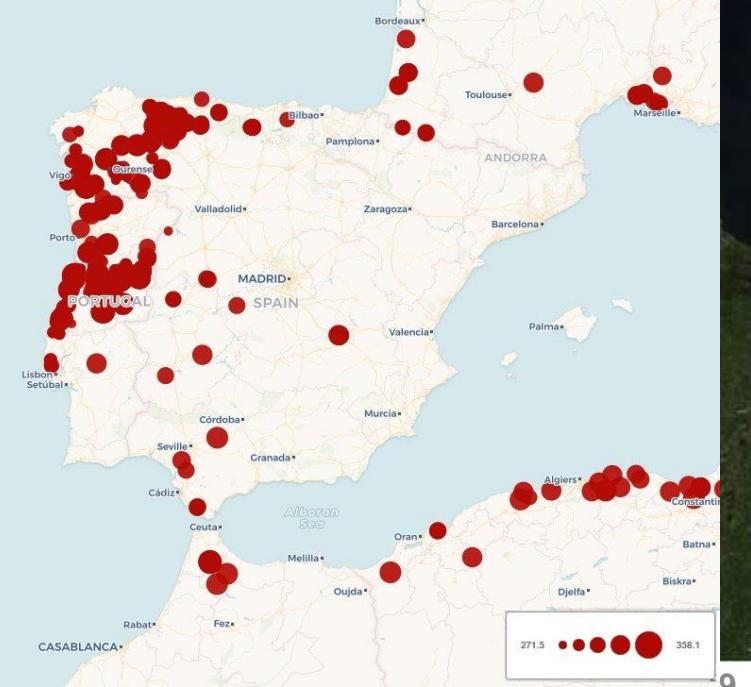


**... But
SAFETY!
...please!**

How we understand OUR wildfires problem?

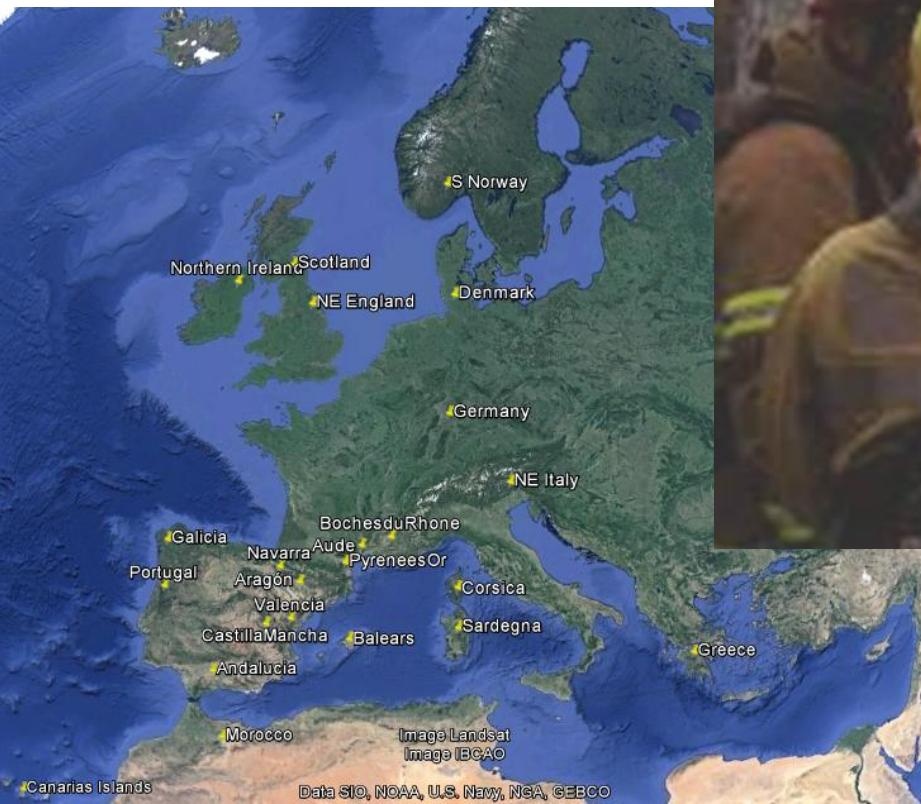


5th GEN simultaneity and international



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5th GEN simultaneity and international cooperation



5th GEN simultaneity and international cooperation

People

Property

Forest

Fire Service Collapse

Common Value

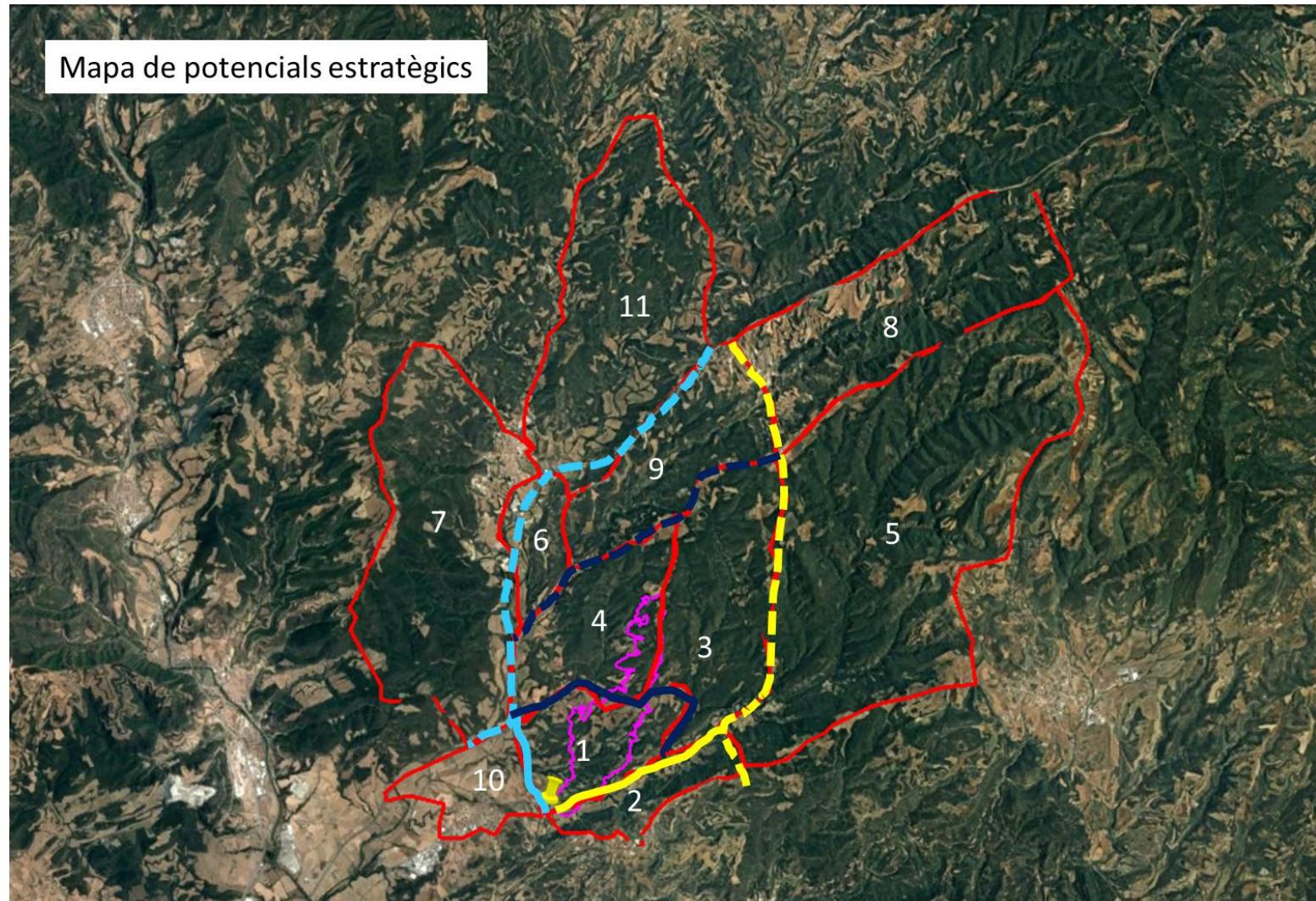
Driving
single
operations

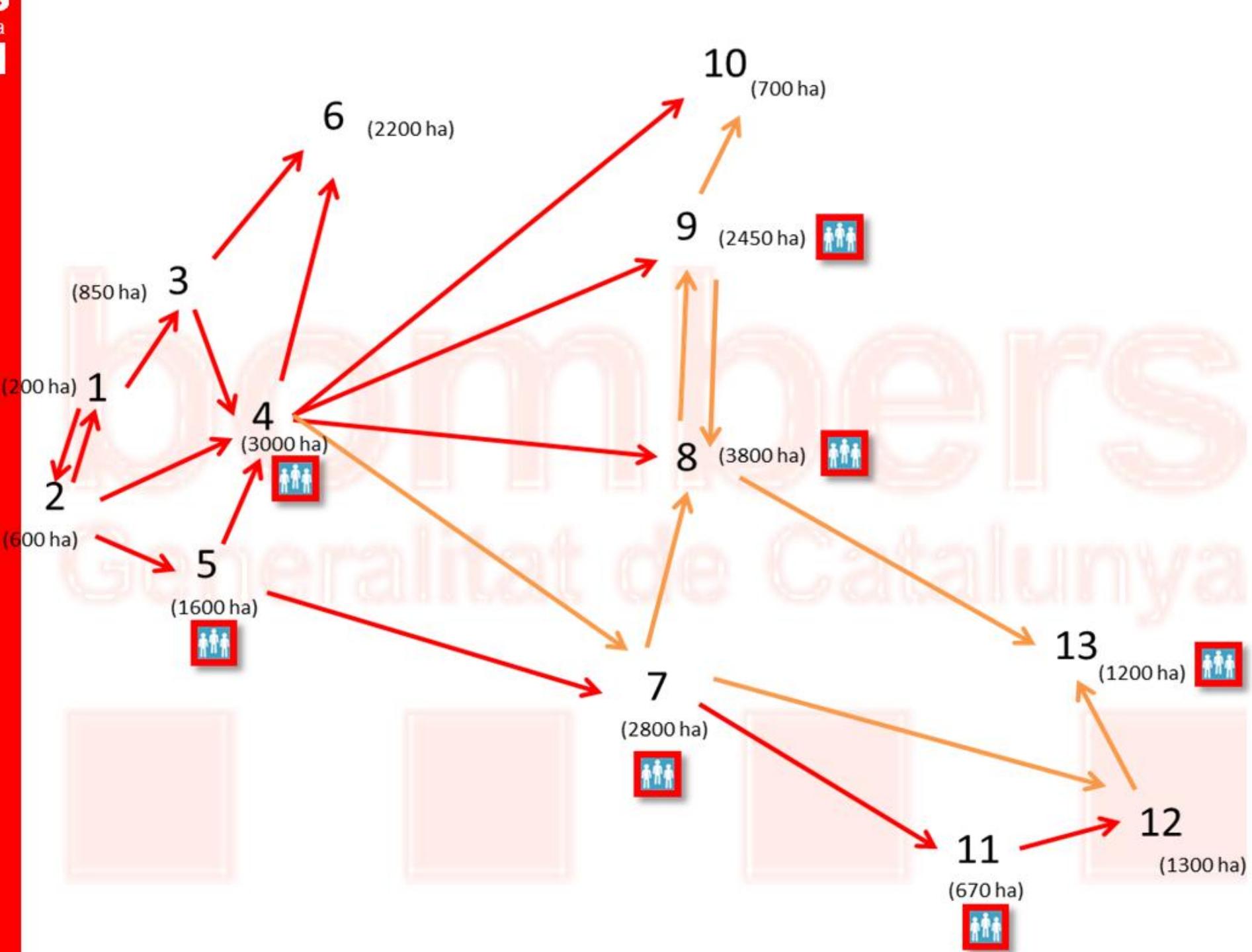
Driving
Service
decisions

Driving
Society
decisions



5th GEN simultaneity and international cooperation



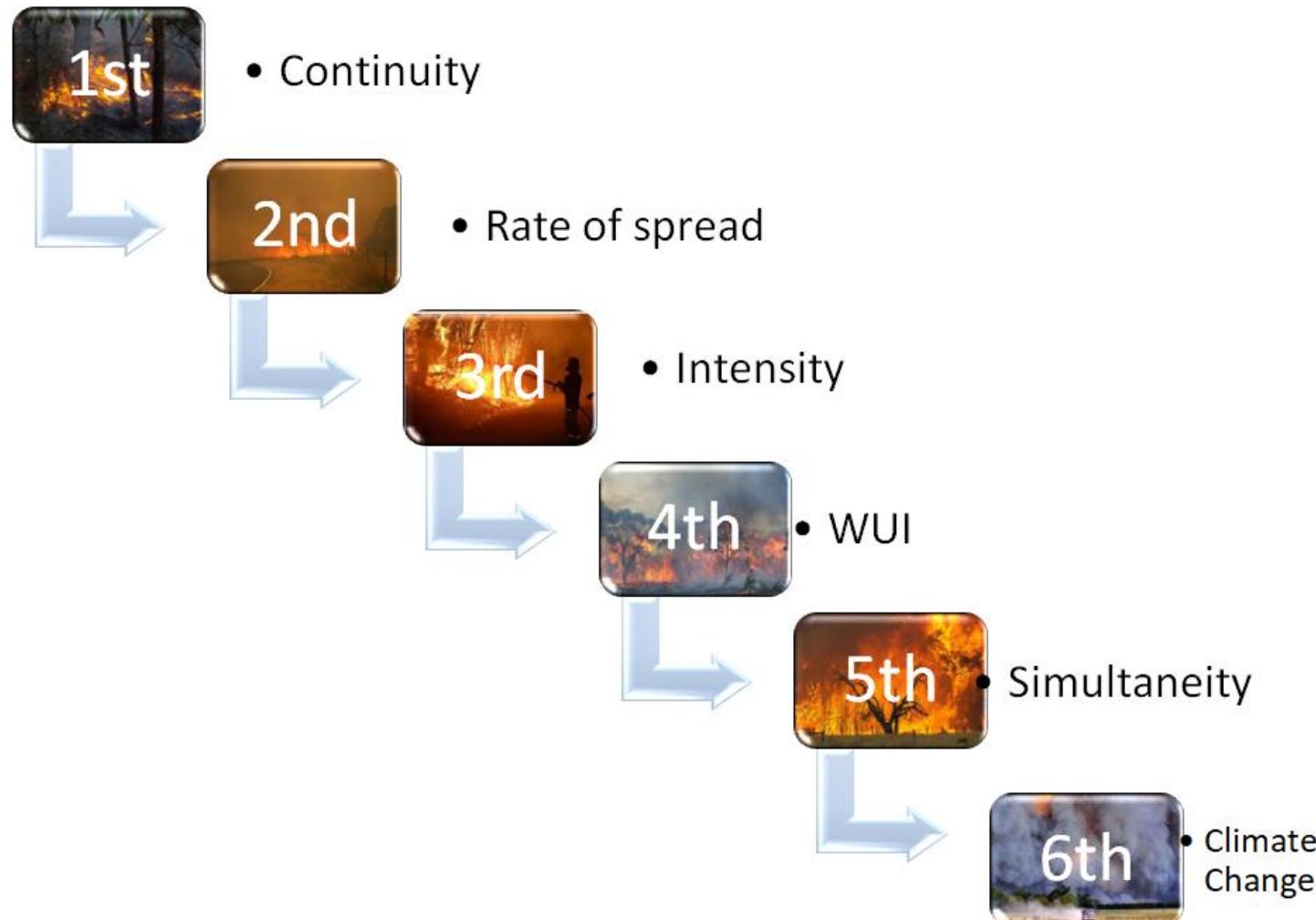


5th GEN simultaneity and international cooperation



ICTA-UAB

How we understand OUR wildfires problem?

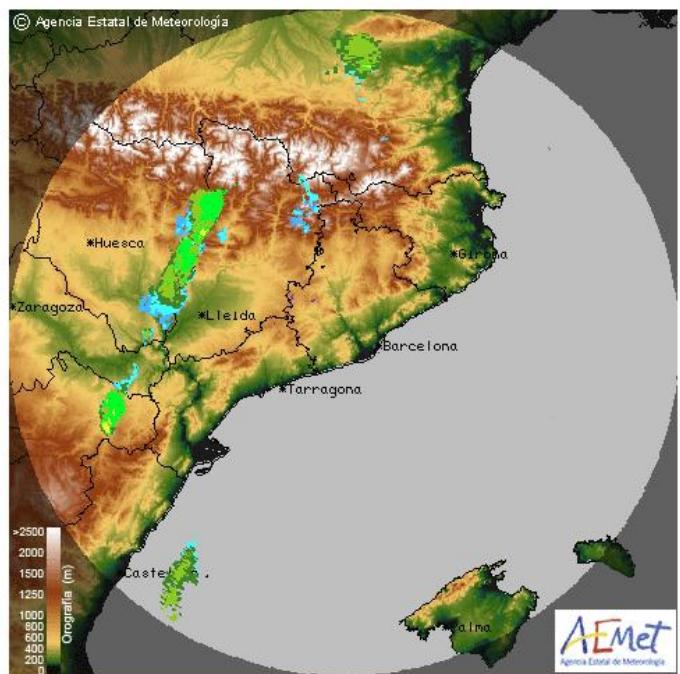


6th GEN megafires and climate change

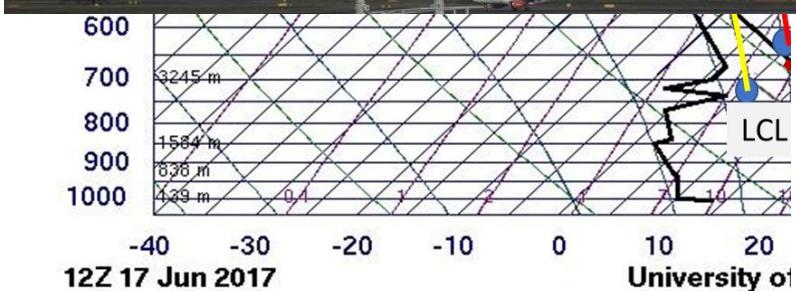


SLAT 38.76
SLON -9.13
SELV 105.0
SHOW -0.11
LIFT -0.96

ec. Acumulada en 6 horas



Echo top (km) 1 2 3 4 5 6 7 8 10 12 14 16 Ind.
Radar de Barcelona
1 00001 RDAR_ECT-H 4 JUN 18155 205000 07416 MOLUR 7 1



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Landscape and fire management framework



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Landscape and fire management framework



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Landscape and fire management framework



Integració del risc de grans incendis forestals (GIF) en la gestió forestal



Incendis tipus i vulnerabilitat de les estructures forestals al foc de capçades



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Departament d'Agricultura, Ramaderia,
Pesca, Alimentació i Medi Natural



Centre de la Propietat
Forestal



Agència Catalana
de l'Aigua



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Orientacions de gestió forestal sostenible de Catalunya (ORGEST)



Tipologies forestals arbrades



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Pesca, Alimentació i Medi Natural



Centre de la Propietat
Forestal



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