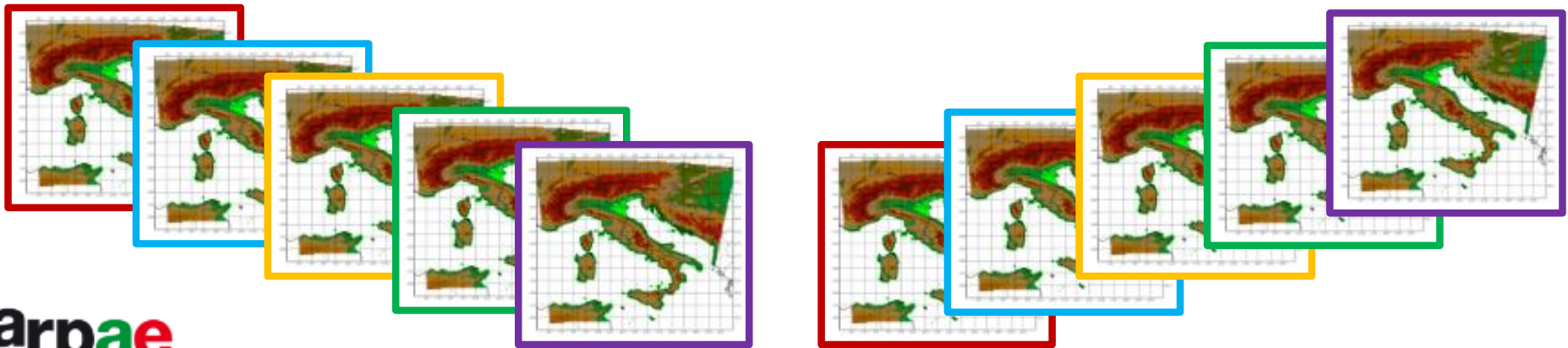
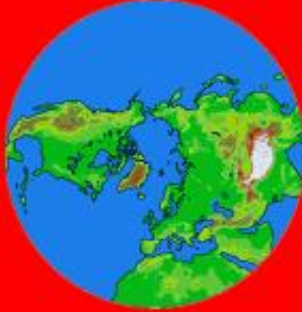
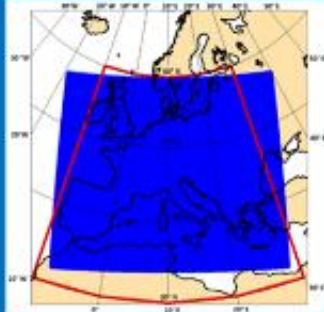
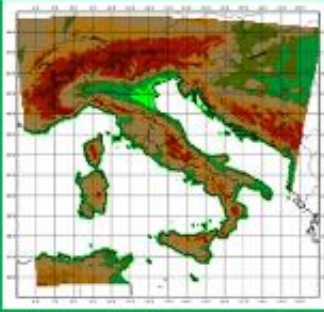


New products for COSMO-2I-EPS

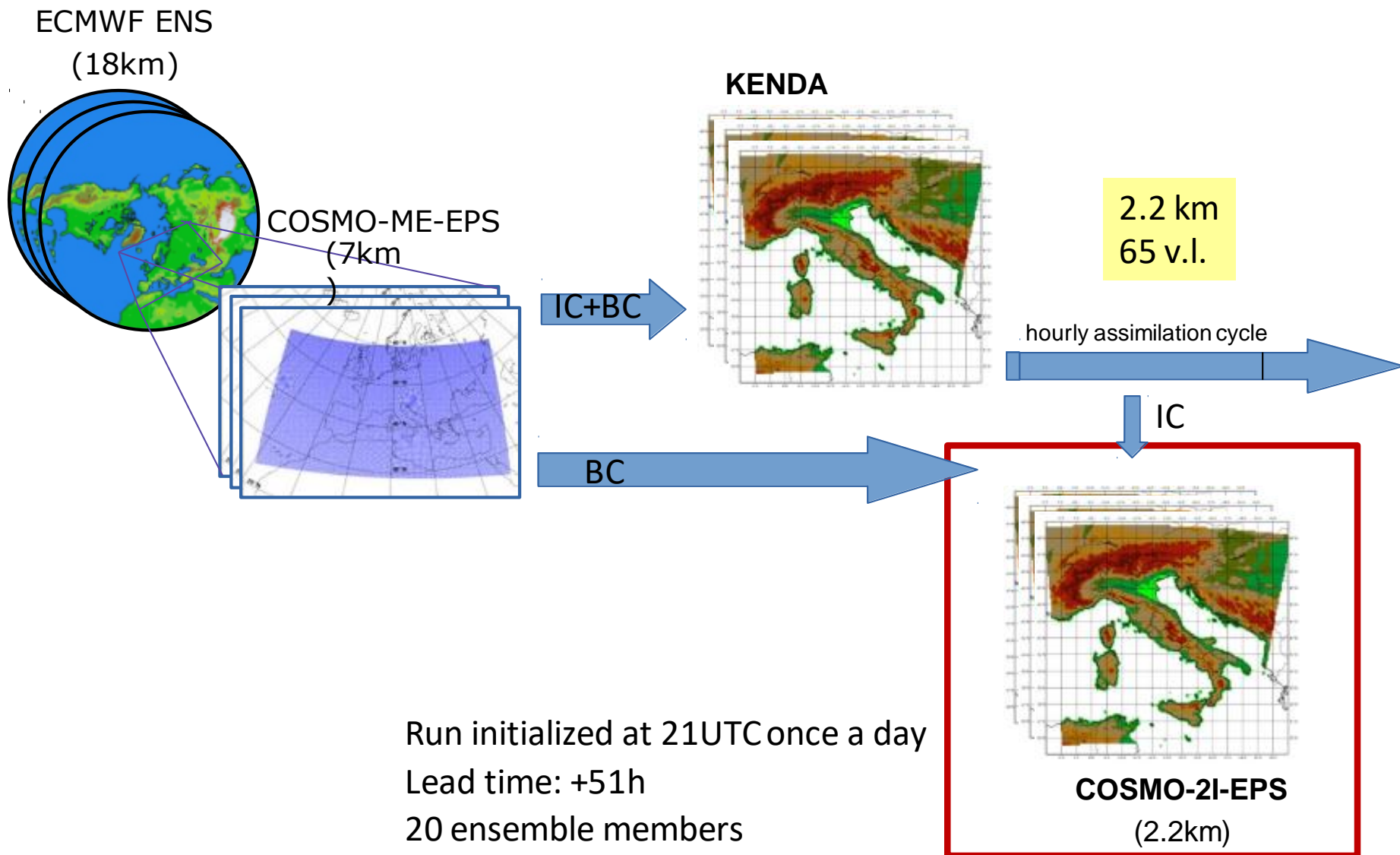
**Chiara Marsigli, Virginia Poli, Maria Stefania Tesini,
Thomas Gastaldo, Davide Cesari**
Arpae SIMC



Ensemble at Arpae

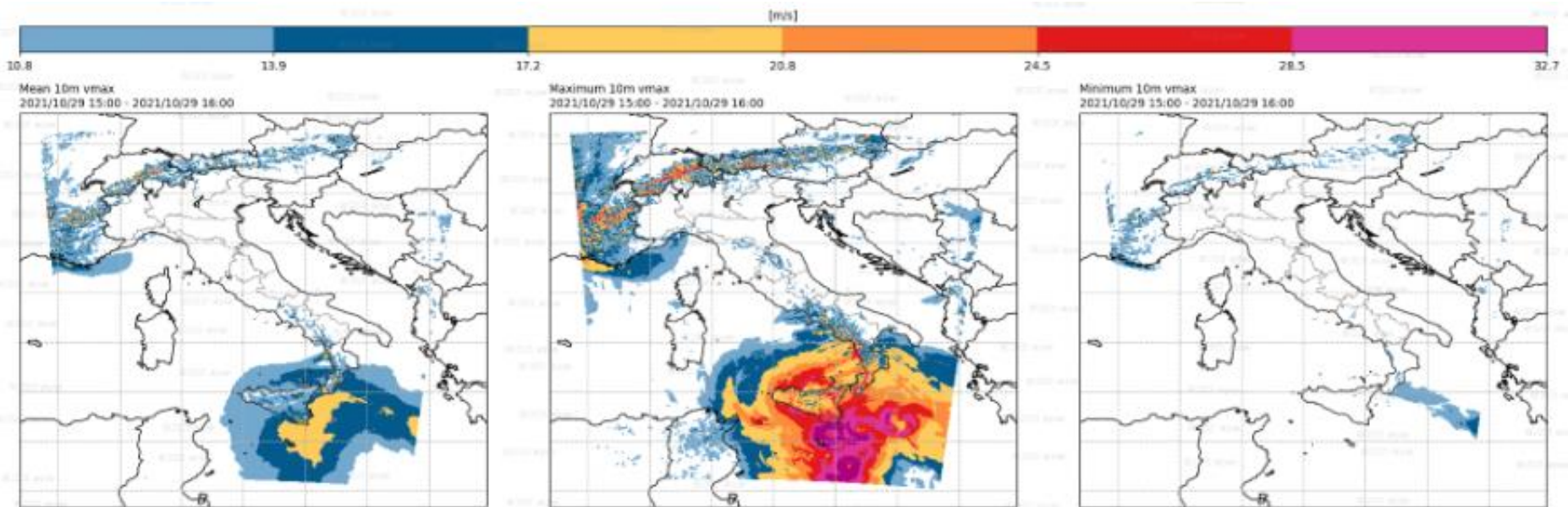
ENSEMBLE SYSTEM	ECMWF ENS	COSMO-LEPS	COSMO-2I-EPS
MAIN TECHNICAL FEATURE			
Integration domain:			
Hor/Vert resolution	18km /91 lev	7km/40lev	2.2km/65lev
Initial Conditions	Hybrid-EnVar	ENS (+cluster analysis)	LETKF
Boundary Conditions	-	ENS (+cluster analysis)	AM ENS (nested on ENS)
Model Perturbation	Stochastic scheme	Parameter perturbation	-
Forecast range (hours)	240	132	51
Type of model	Hydrostatic model	Non-hydrostatic model	Non-hydrostatic model
Type of convection	Parameterized convection	Parameterized convection	Explicit convection
Ensemble size	51	20	20
Starting times (UTC)	00, 06, 12, 18	00, 12	21

COSMO-2I EPS



Wind gusts 29.10.21

Corsa del **28.10.21**, ore 21
Forecast range: +19h



mean

maximum

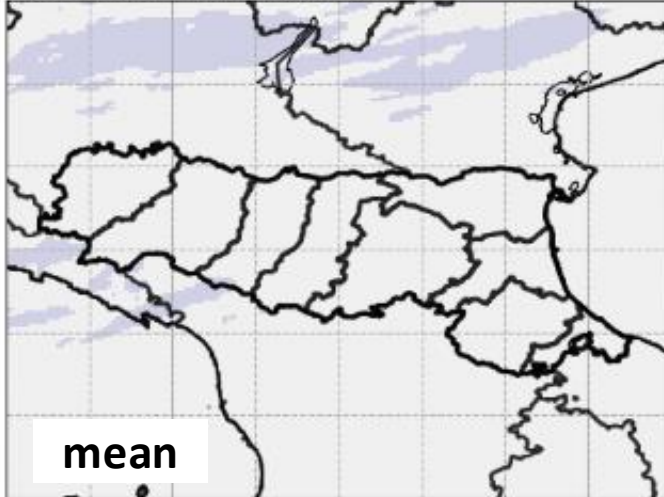
minimum

Thunderstorms 16.09.21

Corsa del 15.09.21, ore 21
Forecast range: +9-24h

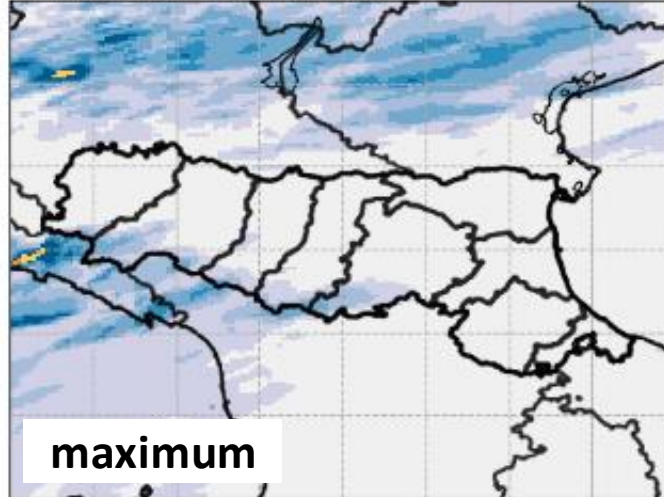
Mean precipitation

2021/09/16 05:00 - 2021/09/16 06:00



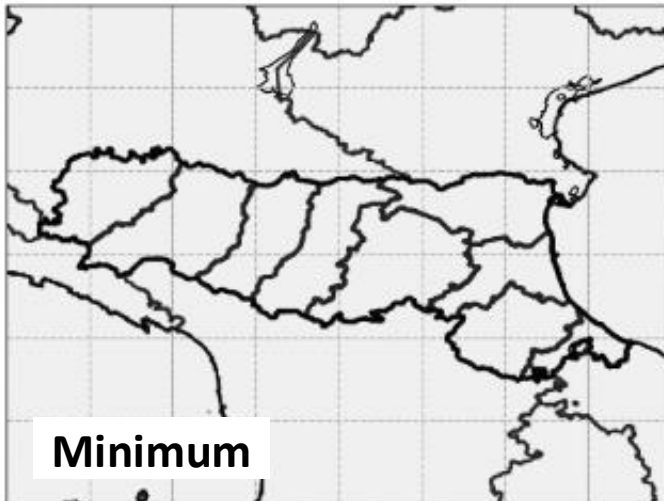
Maximum precipitation

2021/09/16 05:00 - 2021/09/16 06:00



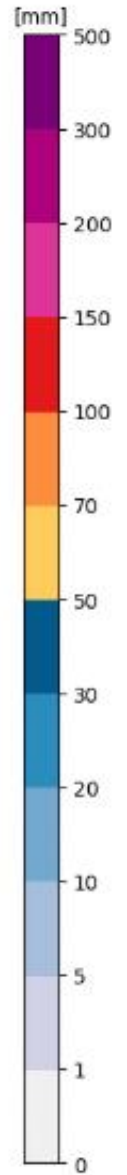
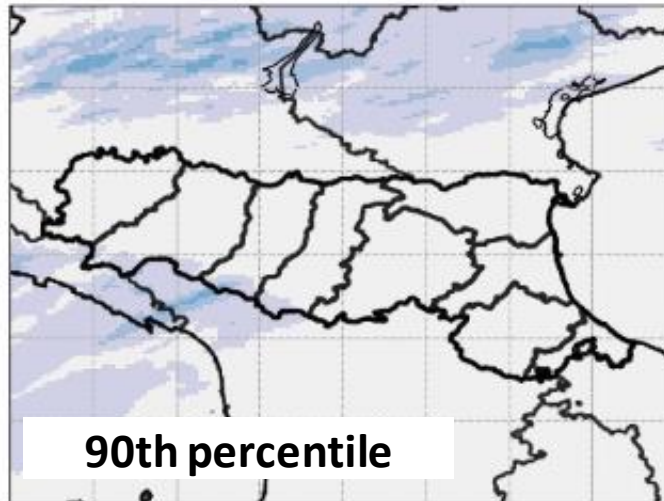
Minimum precipitation

2021/09/16 05:00 - 2021/09/16 06:00



90th percentile precipitation

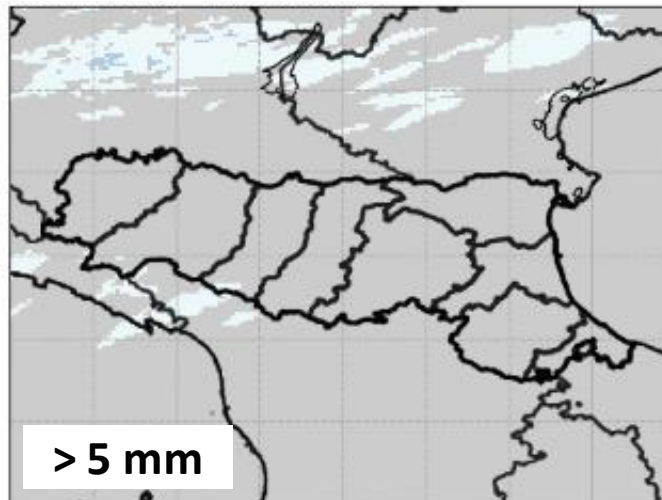
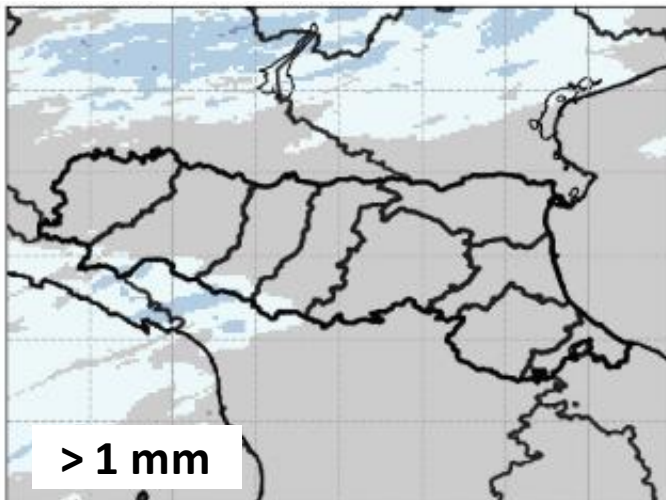
2021/09/16 05:00 - 2021/09/16 06:00



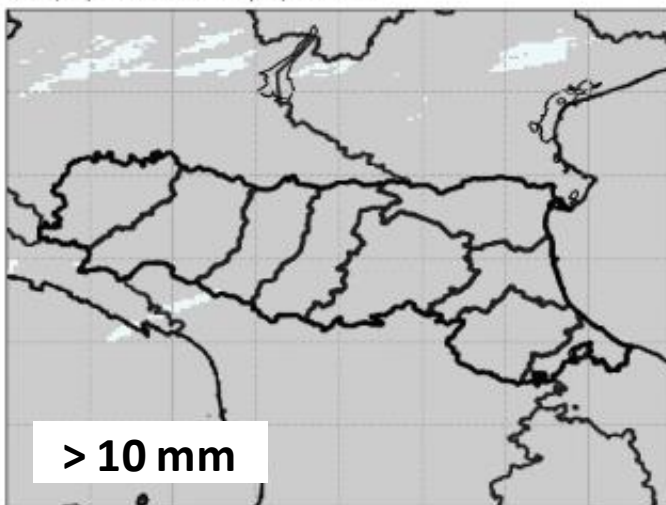
Thunderstorms 16.09.21

Corsa del 15.09.21, ore 21
Forecast range: +9-24h

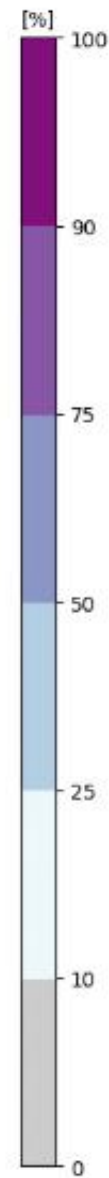
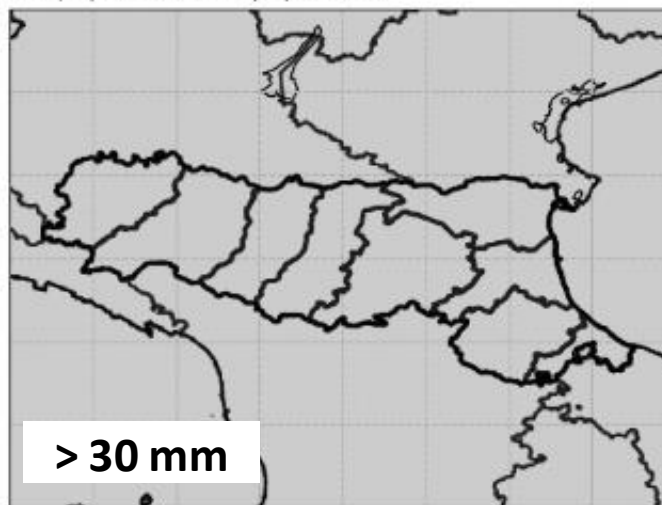
Probability maps



Probability of total precipitation > 10 mm
2021/09/16 05:00 - 2021/09/16 06:00



Probability of total precipitation > 30 mm
2021/09/16 05:00 - 2021/09/16 06:00



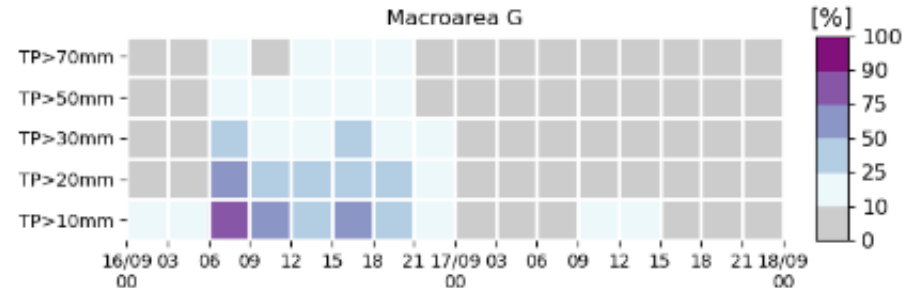
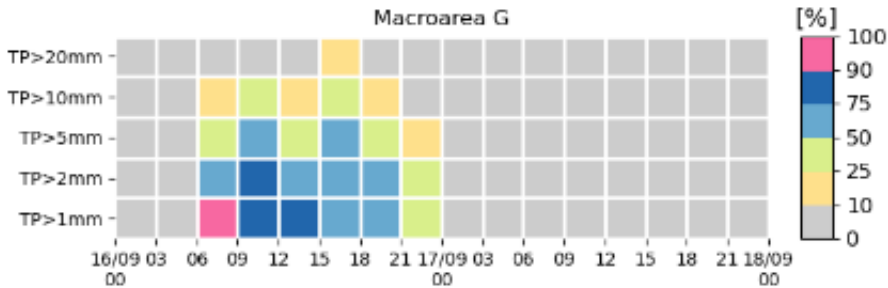
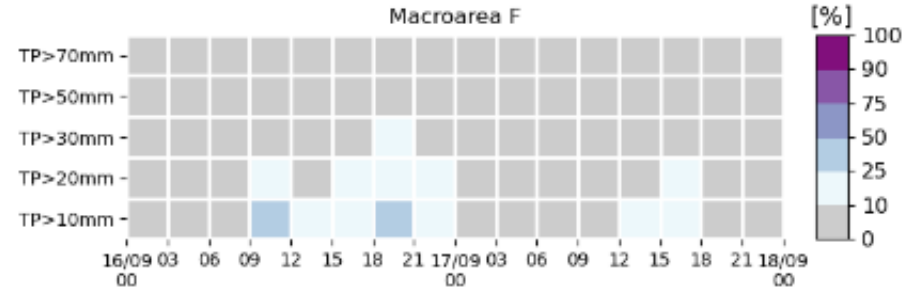
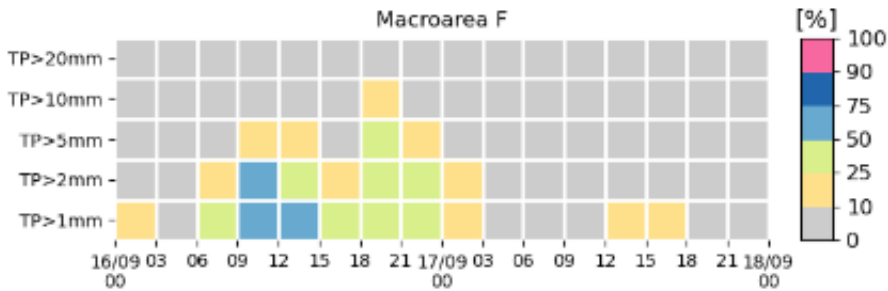
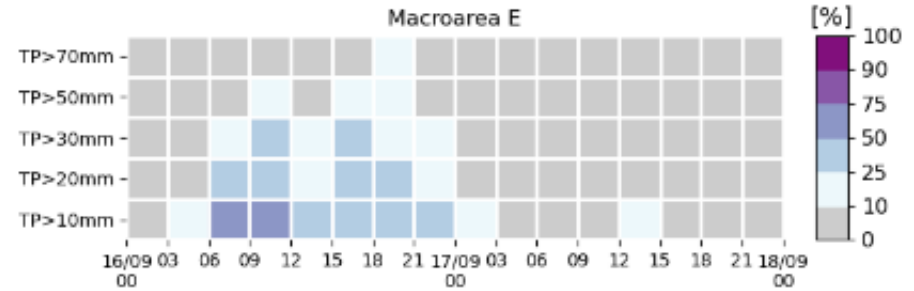
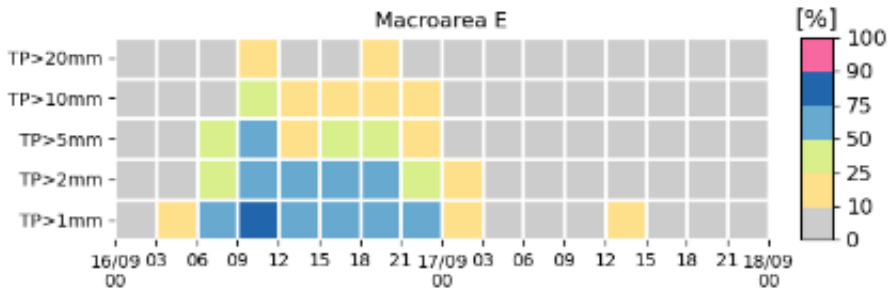
Thunderstorms

16.09.21



Probability of the precipitation averaged over the alert areas

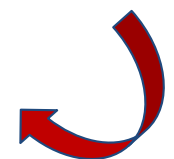
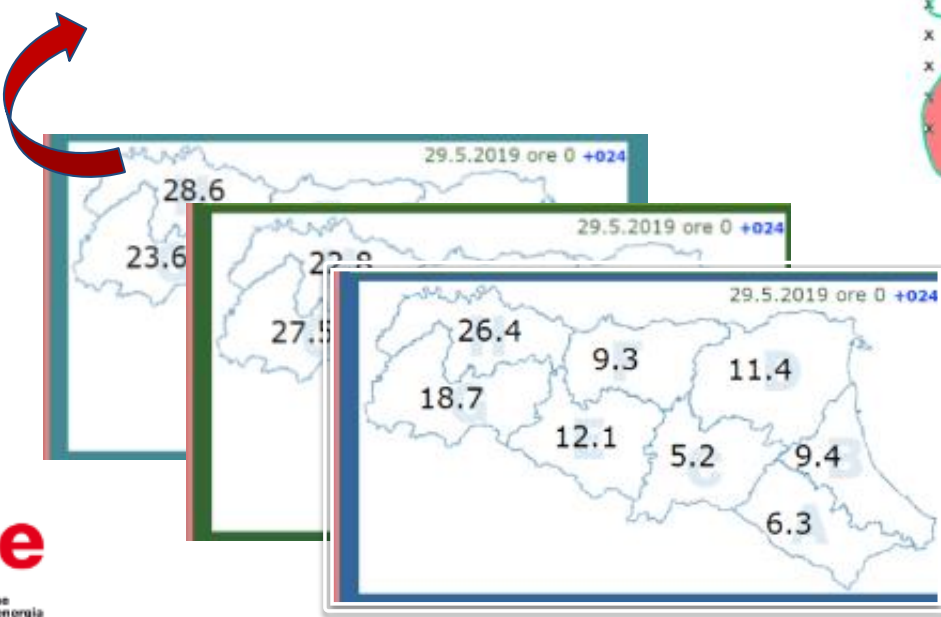
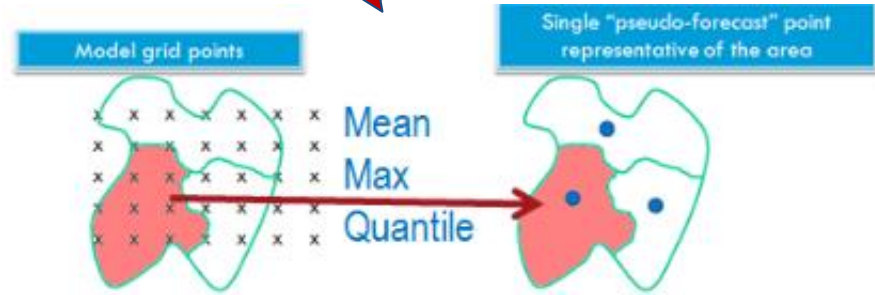
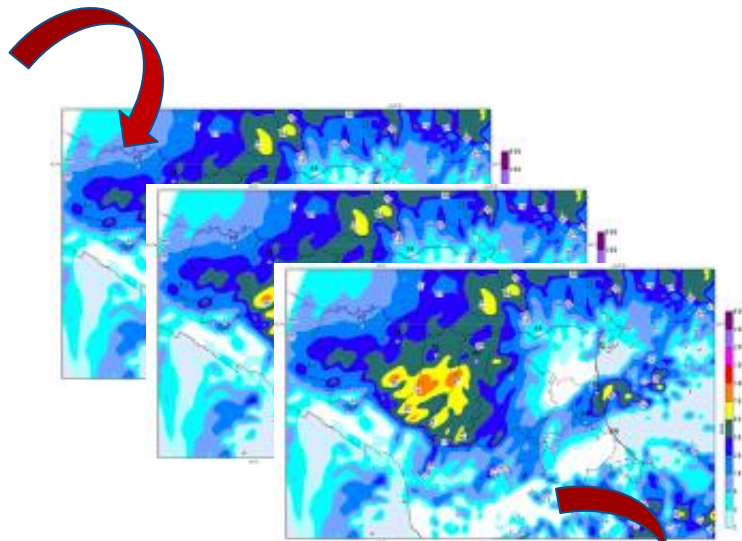
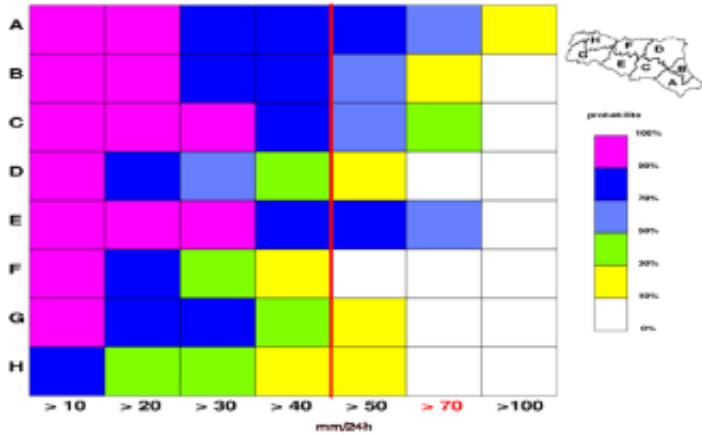
Maximum value over the alert areas of the probability of precipitation



Corsa del 15.09.21, ore 21
Forecast range: +51h

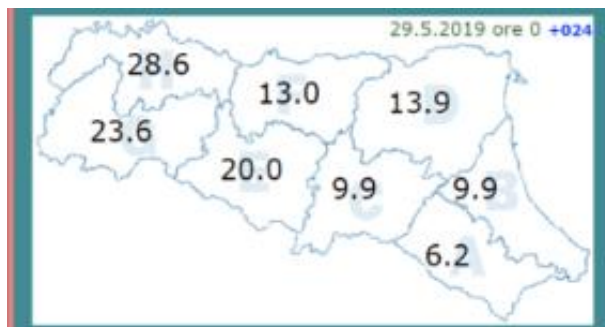
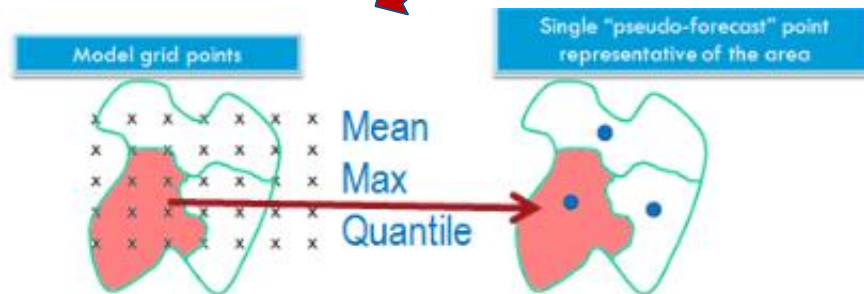
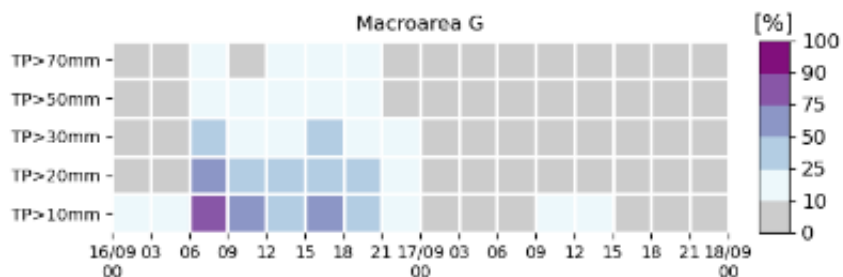
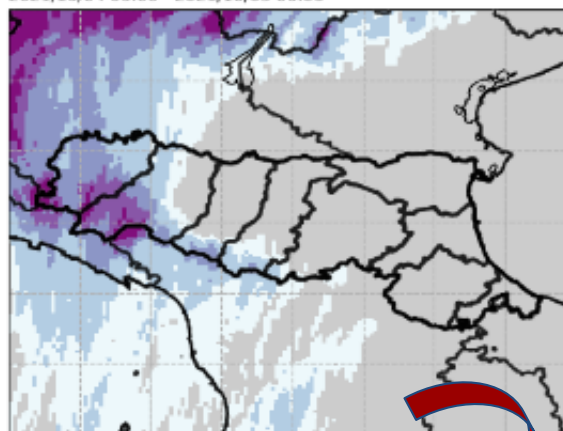
Probability of the precipitation averaged over the alert areas

COSMO-LEPS corsa del 20-05-2015:12 UTC
 Probabilità superamenti medie areali per il giorno 22-05-2015



Maximum value over the alert areas of the probability of precipitation

Probability of total precipitation > 30 mm
2021/10/04 00:00 - 2021/10/05 00:00



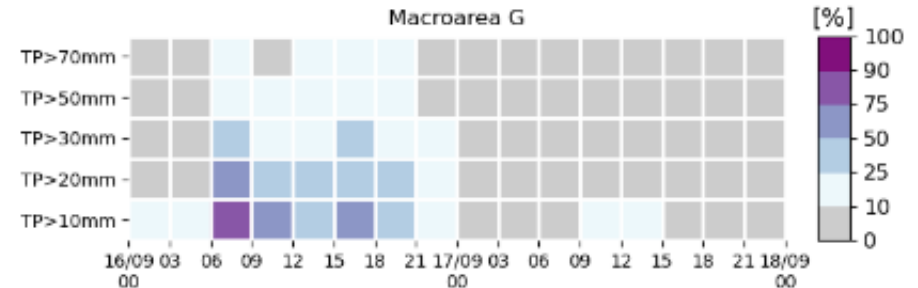
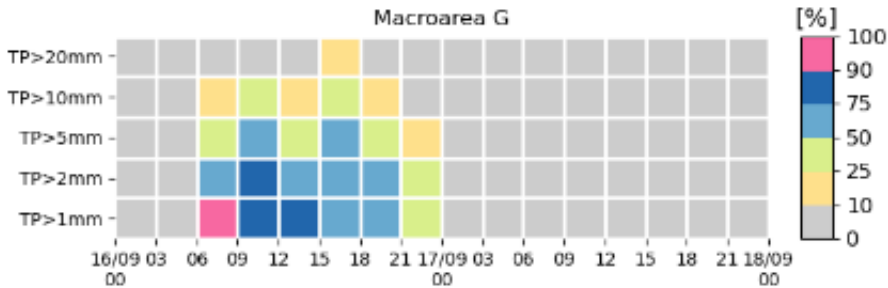
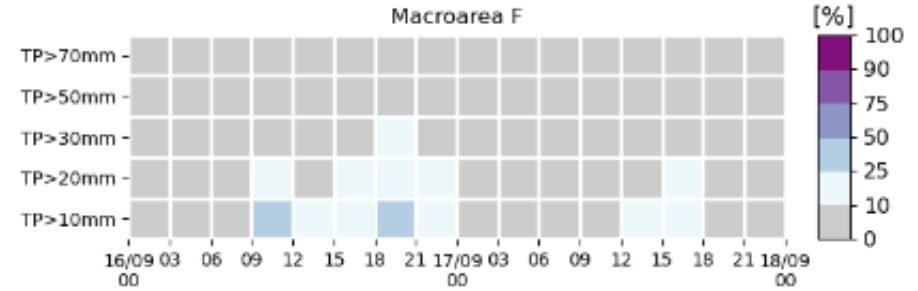
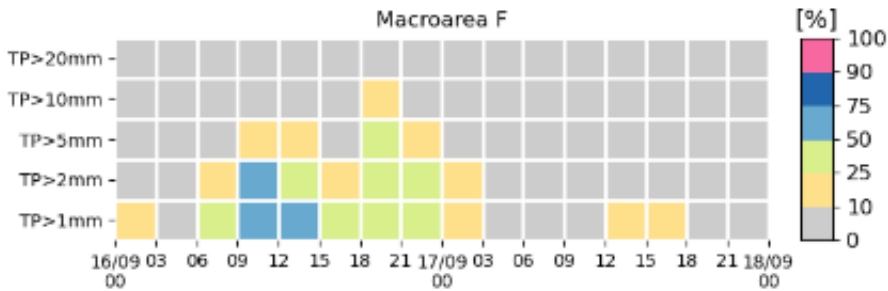
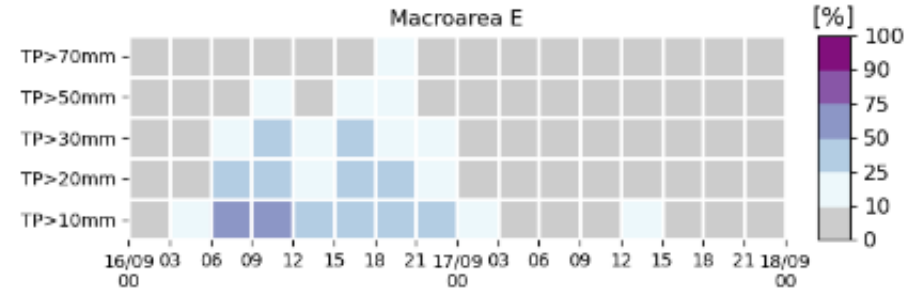
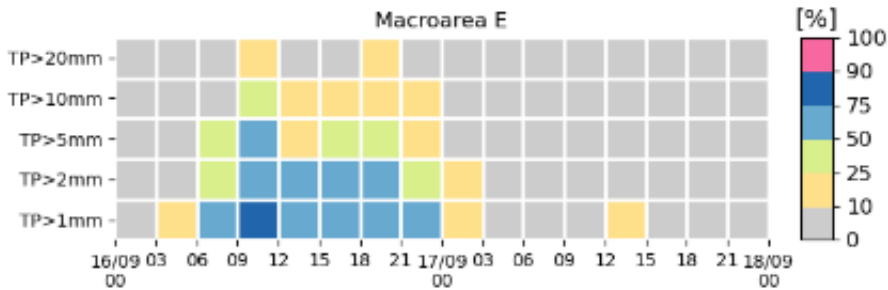
Thunderstorms

16.09.21



Probability of the precipitation averaged over the alert areas

Maximum value over the alert areas of the probability of precipitation



Corsa del 15.09.21, ore 21
Forecast range: +51h