

IPHEN - ITALIAN PHENOLOGICAL NETWORK

CHIARA EPIFANI¹, ROBERTA ALILLA¹, GABRIELE COLA², LUIGI MARIANI², SIMONE GABRIELE PARISI², GIOVANNI DAL MONTE¹

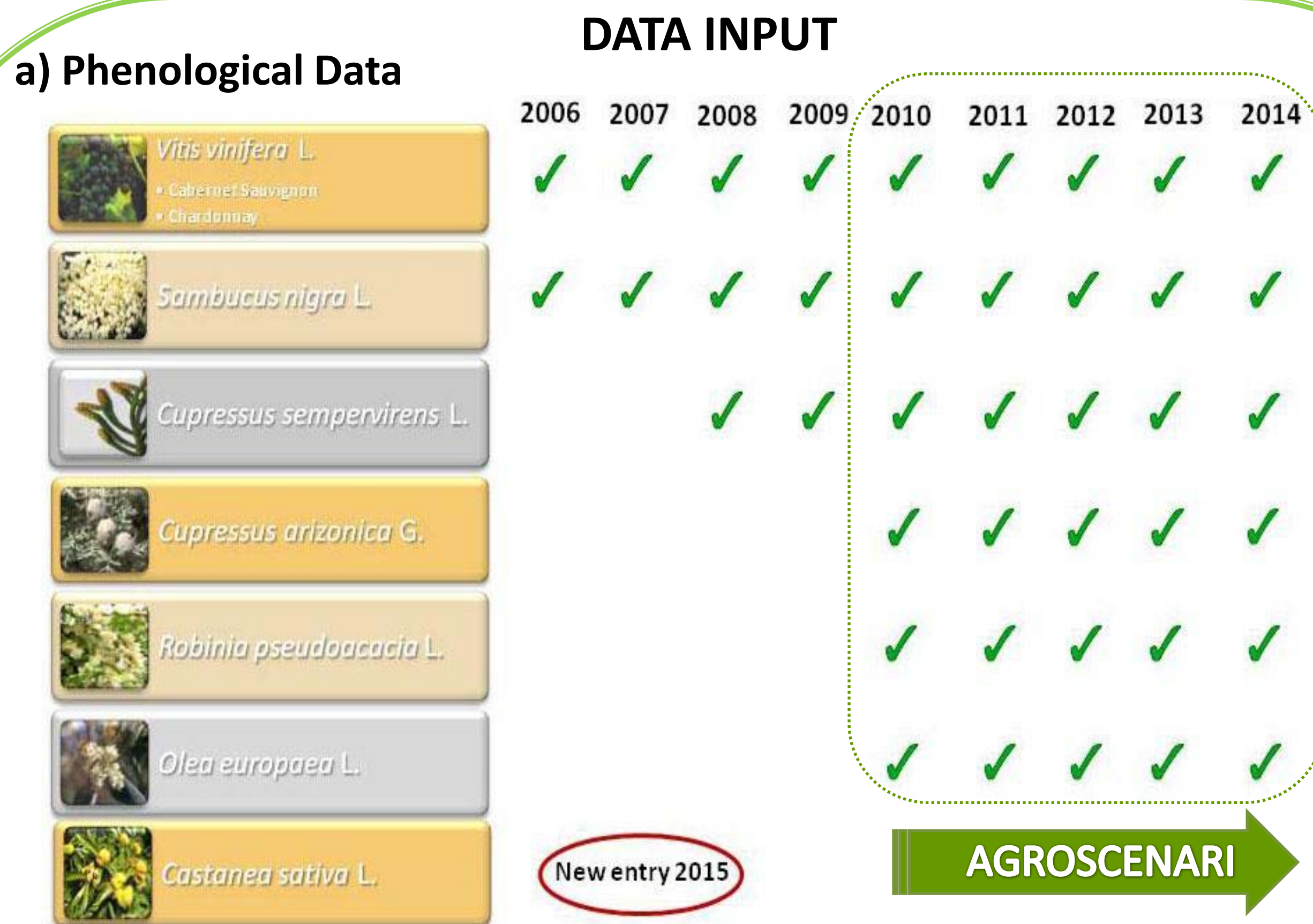
¹ CRA – CMA Consiglio per la Ricerca e la sperimentazione in Agricoltura - Unità di Ricerca per la Climatologia e la Meteorologia Applicate all'agricoltura; chiara.epifani@entecra.it

² Department of Agricultural and Environmental Sciences - Production, Landscape, Agroenergy – University of Milan

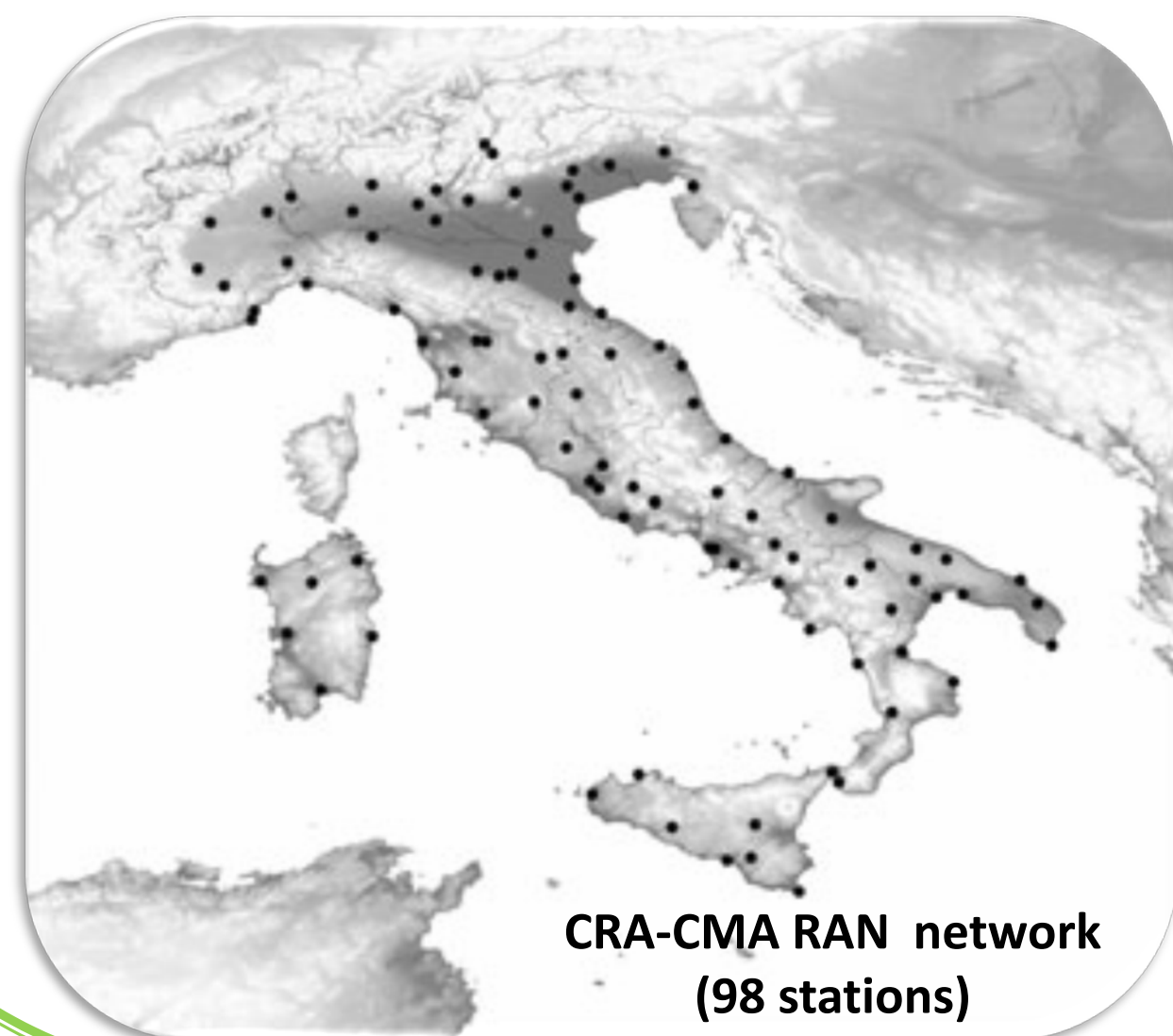


IPHEN is a cooperative project started in 2006 with the aim of producing nationwide maps of analysis and forecast of plants phenological stages mainly used to satisfy the needs of agriculture, health and environmental care. It is a data processing system composed of the following main segments (a) collection of atmospheric and phenological data (b) processing of data with suitable phenological and geo-statistical models; (c) production of phenological maps of analysis and forecast

Since 2010, IPHEN has been supported by Agroscenari project.

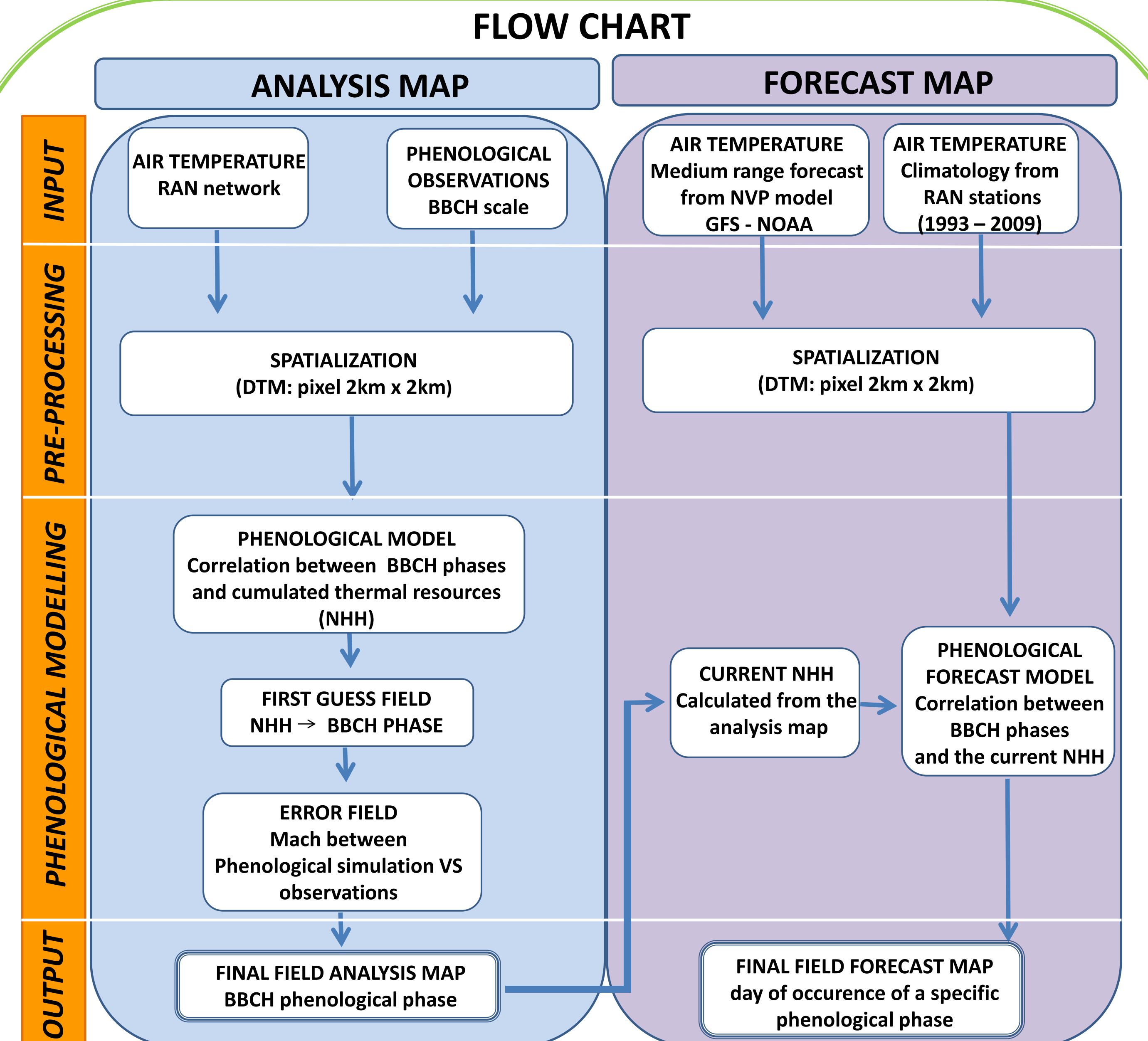


b) Meteorological and climatological Data



INPUTS NEEDED BY THE SYSTEM:

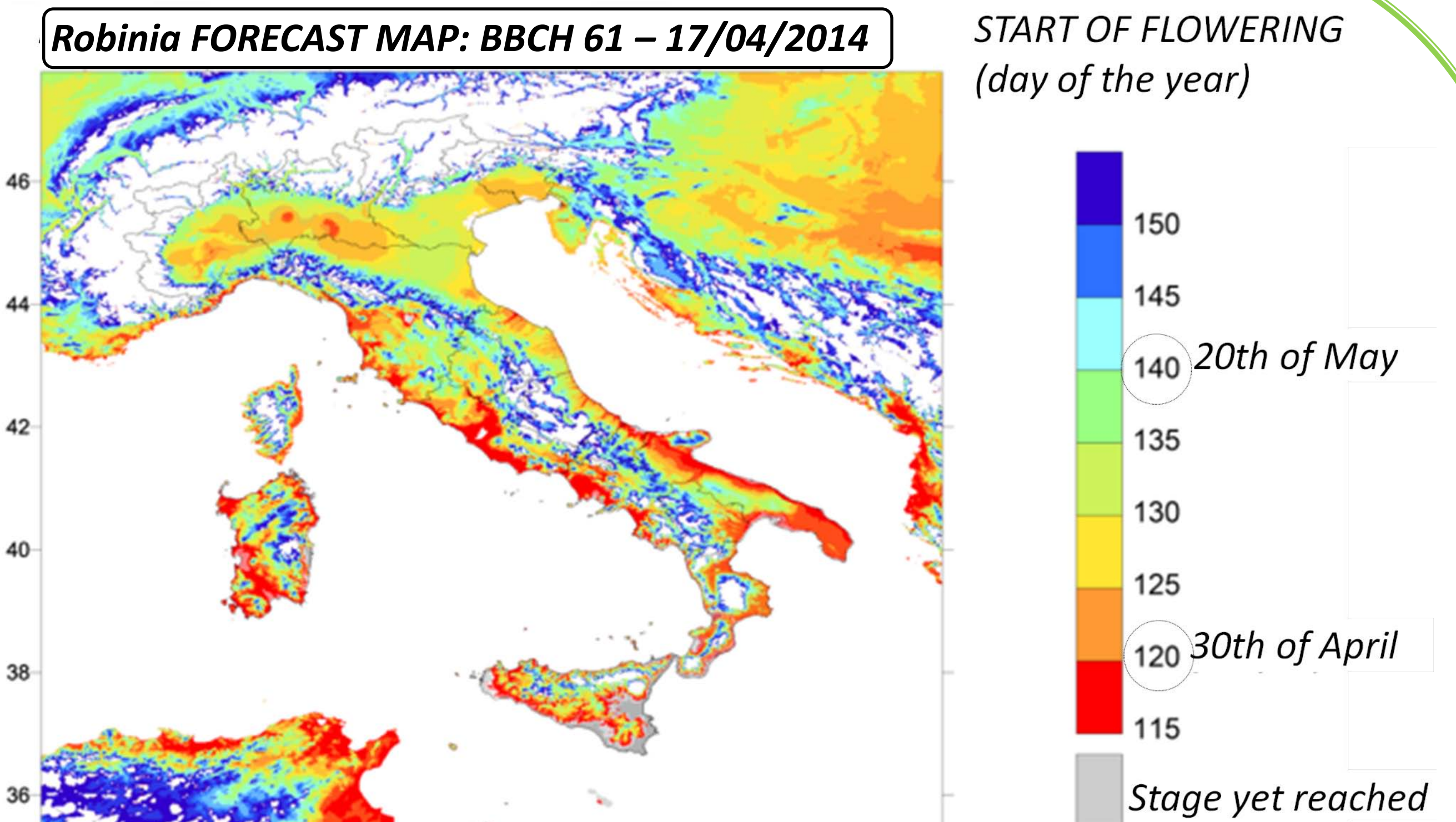
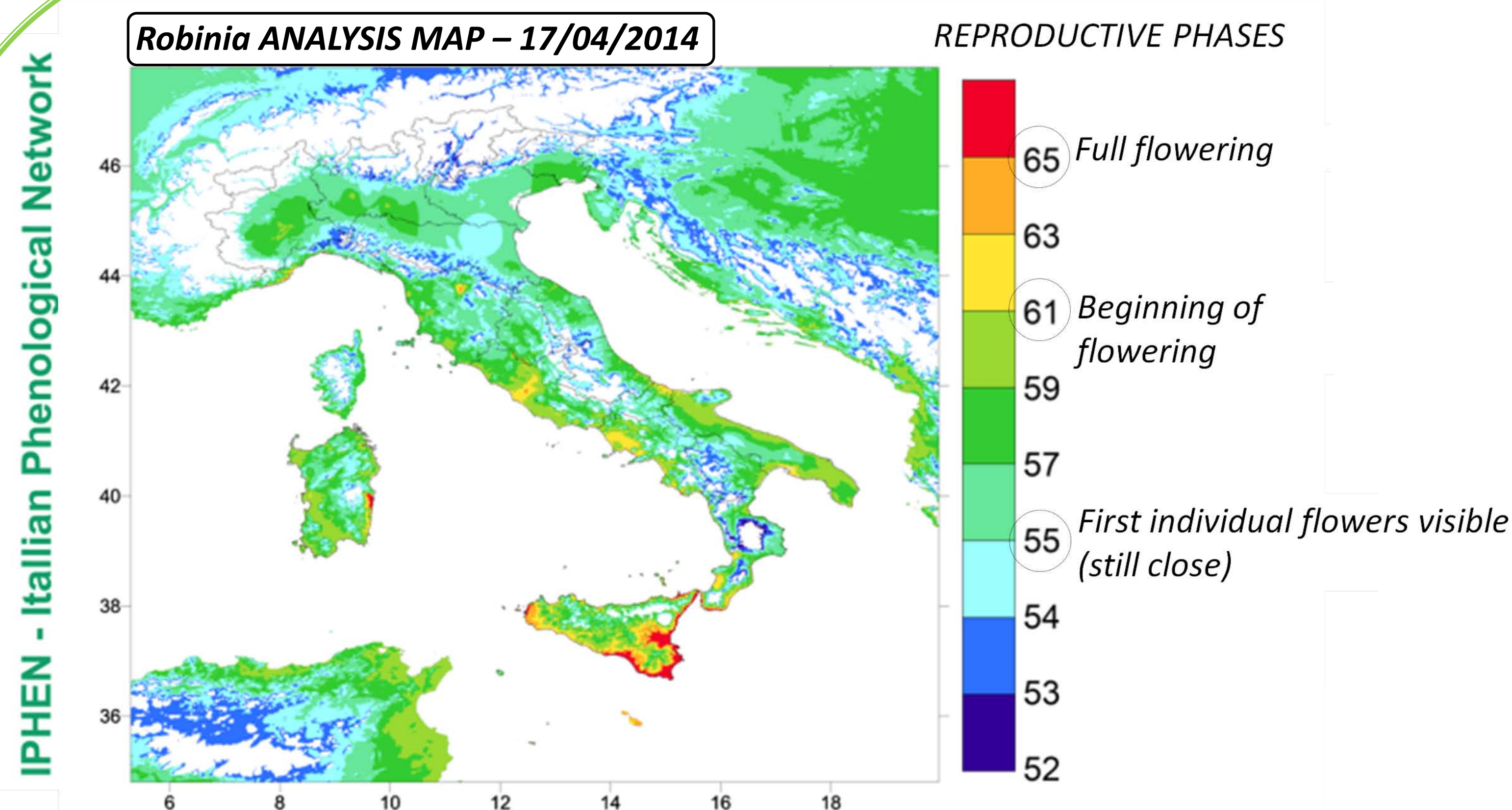
- (a) phenological data provided weekly by volunteer observers
- (a) daily maximum and minimum temperatures gathered by the National Agrometeorological Network - RAN



Phenological model is based on the evaluation of thermal resources by means of normal heat hours (NHH).

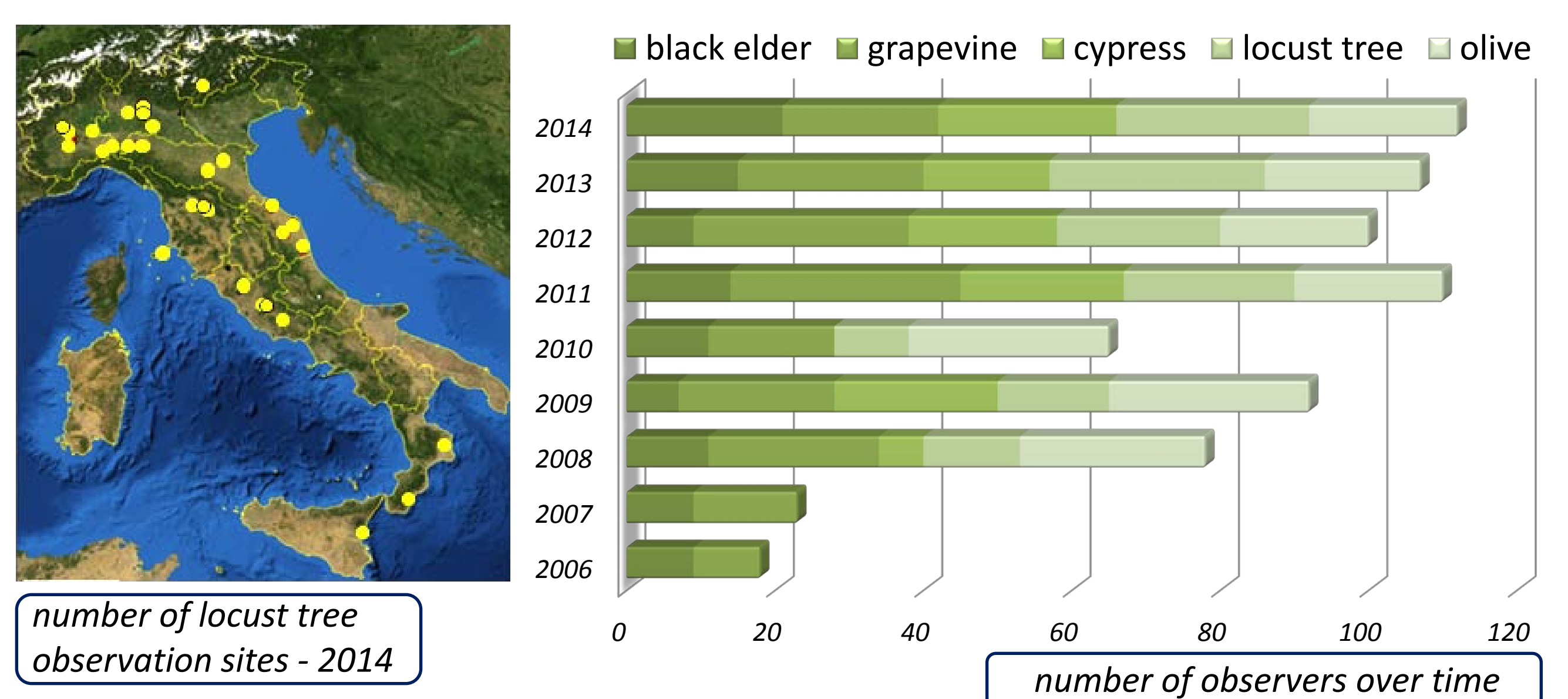
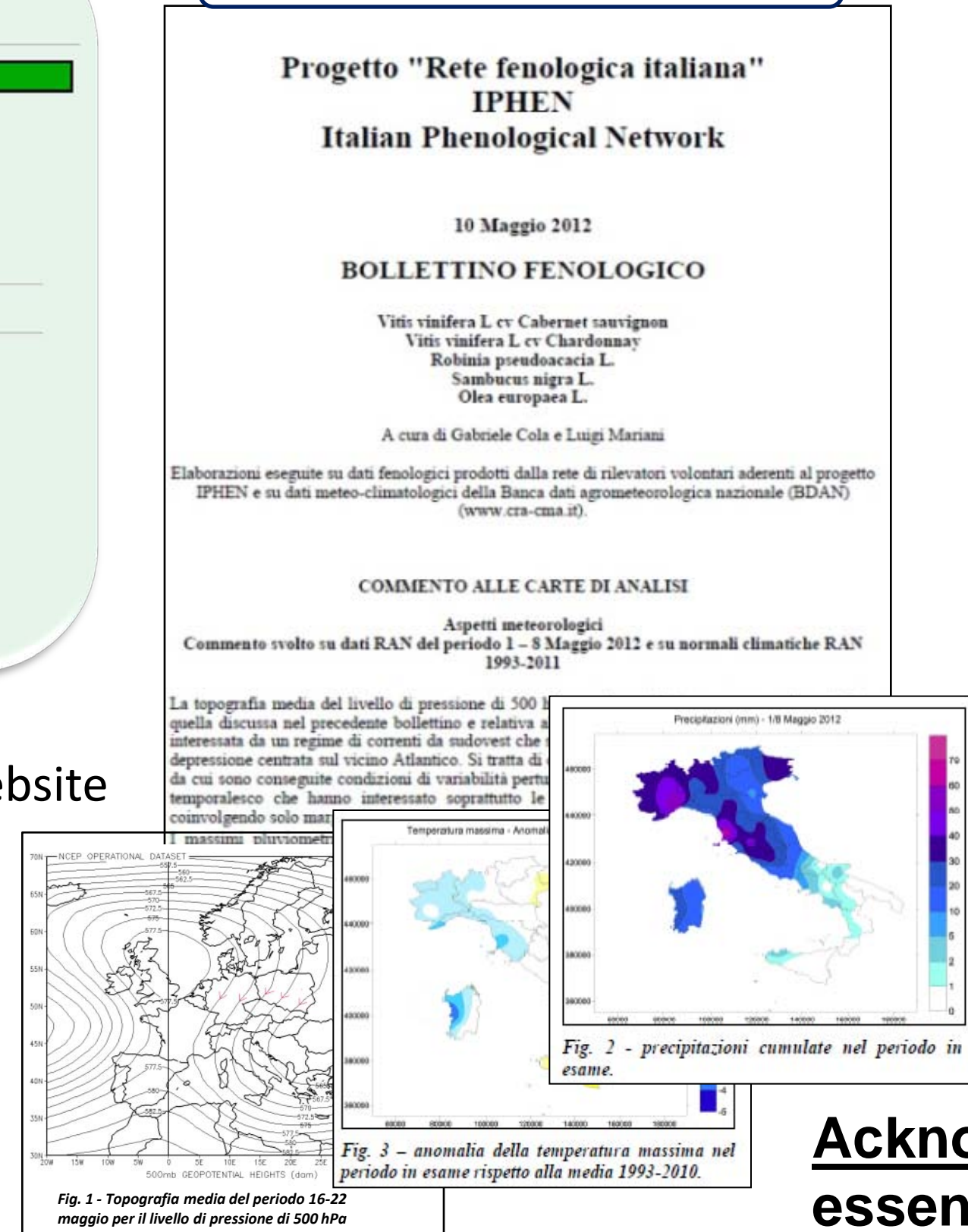
One of the IPHEN strenghts is the match between phenological observations and phenological simulations: therefore IPHEN observers send their data from the field every week.

PRODUCTS



Maps of phenological analysis and forecast are available on the website of the project www.cra-cma.it/iphen/mappe.asp together with original records, original bibliography, the survey protocols and manuals. Since the end of 2011, the maps, with other agrometeorological analysis, have been organized in a downloadable weekly bulletin.

PHENOLOGICAL BULLETIN



IPHEN system has constantly improved in terms of number of handled species, observation sites, number of maps and numbers of observers, involving a growing group of volunteer professional phenologists from different discipline areas (agriculture, health, natural sciences and so on).

Acknowledgements: This project would not have been possible without the essential contribution of IPHEN voluntary observers.

BIBLIOGRAPHY

Mariani L., Alilla R., Cola G., Dal Monte G., Epifani C., Puppi G., Failla O. 2013. IPHEN - a real-time network for phenological monitoring and modelling in Italy. International Journal of Biometeorology 57: 3 881-893