



POLJOPRIVREDNI  
FAKULTET  
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NOVOM SADU  
**PFNS**  
DEPARTMAN ZA RATARSTVO I  
POVRTARSTVO



UNIVERSITÀ  
DEGLI STUDI  
FIRENZE  
**DISPAA**  
DIPARTIMENTO DI SCIENZE DELLE  
PRODUZIONE AGROALIMENTARI  
E DELL'AMBIENTE



UNIVERSITÄT FÜR  
BODENKULTUR  
WIEN  
**BOKU**  
DEPARTMENT FÜR WASSER-  
ATMOSPHERE-UMWELT



EUROPEAN  
COMMISSION  
**Horizon 2020**  
EUROPEAN UNION FUNDING  
FOR RESEARCH & INNOVATION

**Workshop  
2018**

# Croatian Agrometeorological Society

**Višnja Vučetić**



Meteorological and Hydrological Service of Croatia



Serbia for Excell

140 years

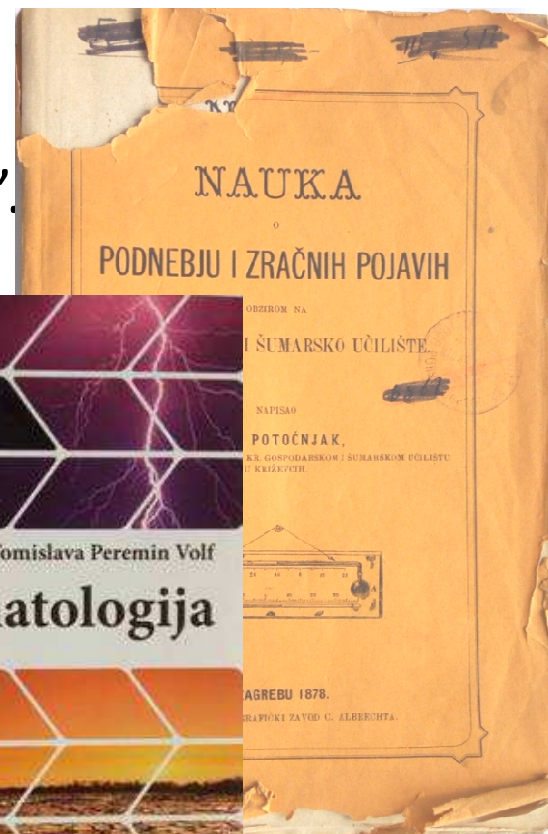


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## the first Croatian agrometeorological book

Prof. Ivan Potočnjak published the first Croatian meteorological and agrometeorological book „Science of Climate and Atmospheric Phenomena”.



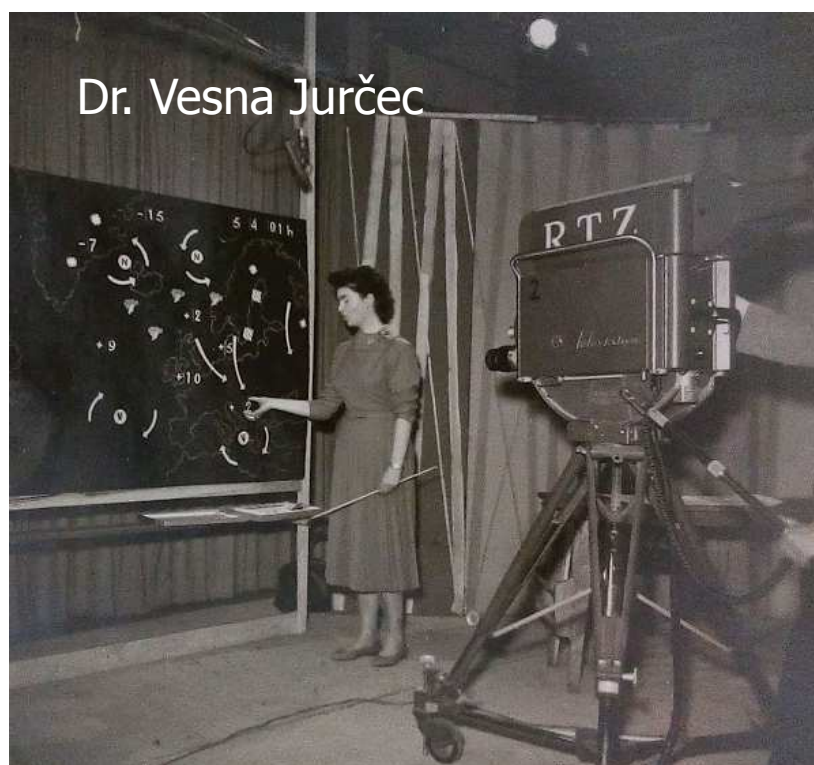
1985

2000

2008

Workshop, 2018 Novi Sad

# *60 years* the first weather forecast for farmers on TV



The first meteorologists who presented the weather forecast in the Agricultural Programme on TV in the period 1958-1963.

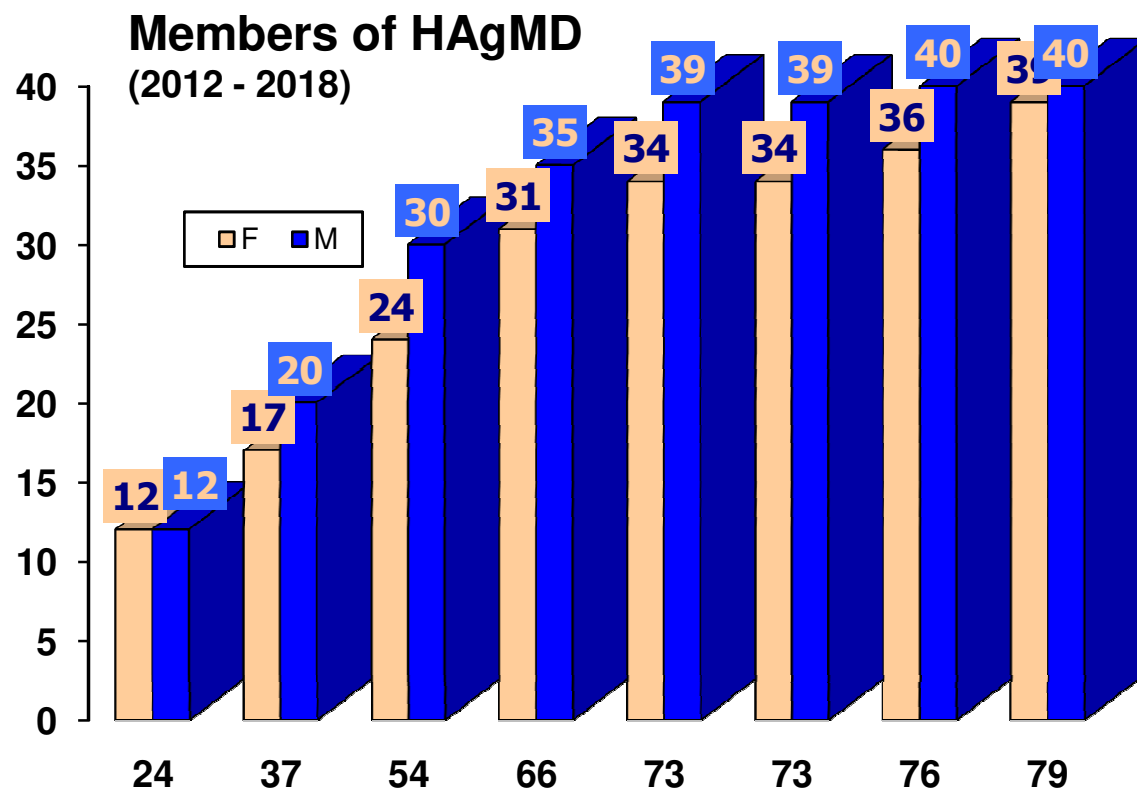


# *30 years* continuous presentation of agrometeorological forecasts



The first agrometeorologists who presented the agrometeorological prognosis in the newspapers since 1988, on radio since 1990, on TV and web site since 2004.

## Association of meteorologists, agronomists and foresters



**79 members**

PhD – 35

Prof. – 12

Assis. Prof. – 14

Main goal is the popularization and promotion of all science branches in agricultural and forest meteorology.

## Global Federation of Agrometeorological Societies



Jeju, South Korea, 5 November 2013  
Antalia, Turkey, 8 April 2014  
Buchurest, Romania, 8 October 2015



# Agrometeorology in the serves to the users

“Climate change, agriculture and protection forest against fire”

- Timely agrometeorological information is multiply paid for the development in food production and the protection of forests.
- 5 + 1 agrometeorological workshops for farmers, agronomists, foresters and firemen





# Agrometeorology in the serves to the users

“Climate change, agriculture and protection forest against fire”

- 44 agrometeorological seminars for pupils and students



Dubrovnik, 20 November 2015

Workshop, 2018 Novi Sad



# Agrometeorology in the serves to the users

- 2 round tables for scientists and journalists



HAZU, Zagreb, 4 December 2015



## Microclimate measurements and simulations

- to obtain fine-scale (100 m) agroclimatic information based on numerical simulations using the local-scale climate model of MUKLIMO\_3 for the semi-arid Adriatic islands of Hvar and Korčula which are extremely sensitive to impacts of global climate change

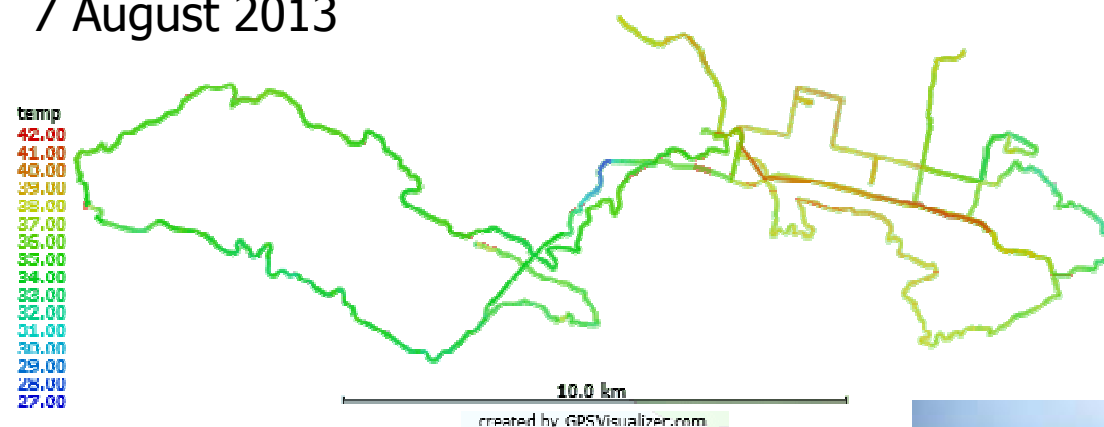
Collaboration with

- Austrian Meteorological and Geodynamic Institute, Vienna





Temperature profiles  
7 August 2013



## Results of mobile measurements

Stari Grad Plain,  
7 August 2013

$$T_{\max} = 41.7^{\circ}\text{C}$$

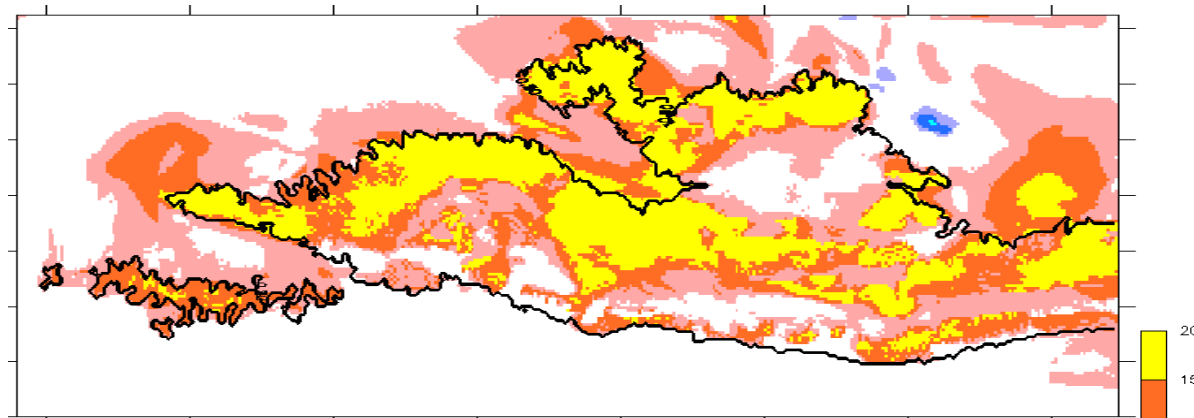
Stari Grad Plain is the ancient Greek cadastral system from 4<sup>th</sup> century BC. It was divided into geometrical parcels (chora) bounded by dry stone walls. Therefore, UNESCO protected this plain. Grapes and olives has been continuously cultivated on the plain during 24 centuries.



## Sensitivity experiments

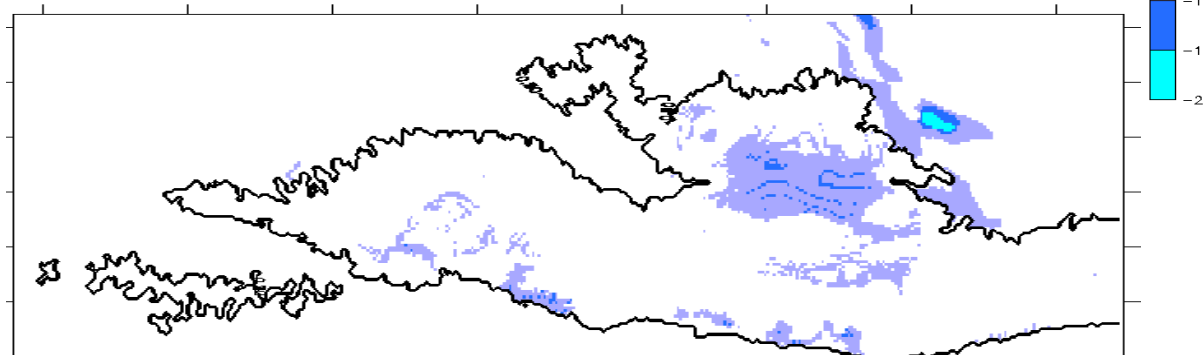
### Forest fire

Difference in mean annual summer days if all forest areas are turned into bare rocks



### Olive groves

Difference in mean annual summer days if all agricultural areas are planted with olives



### Application:

- Agricultural, irrigation and urban planning
- Fire risk management
- Definition of critical zones for environmental protection
- Awareness raising for sustainable development



## Agrometeorological mosaic for youth: Little School “Fire is no joke”

Crown fire  
Split 18 July 2017

### Mean SSR (1961-1990)

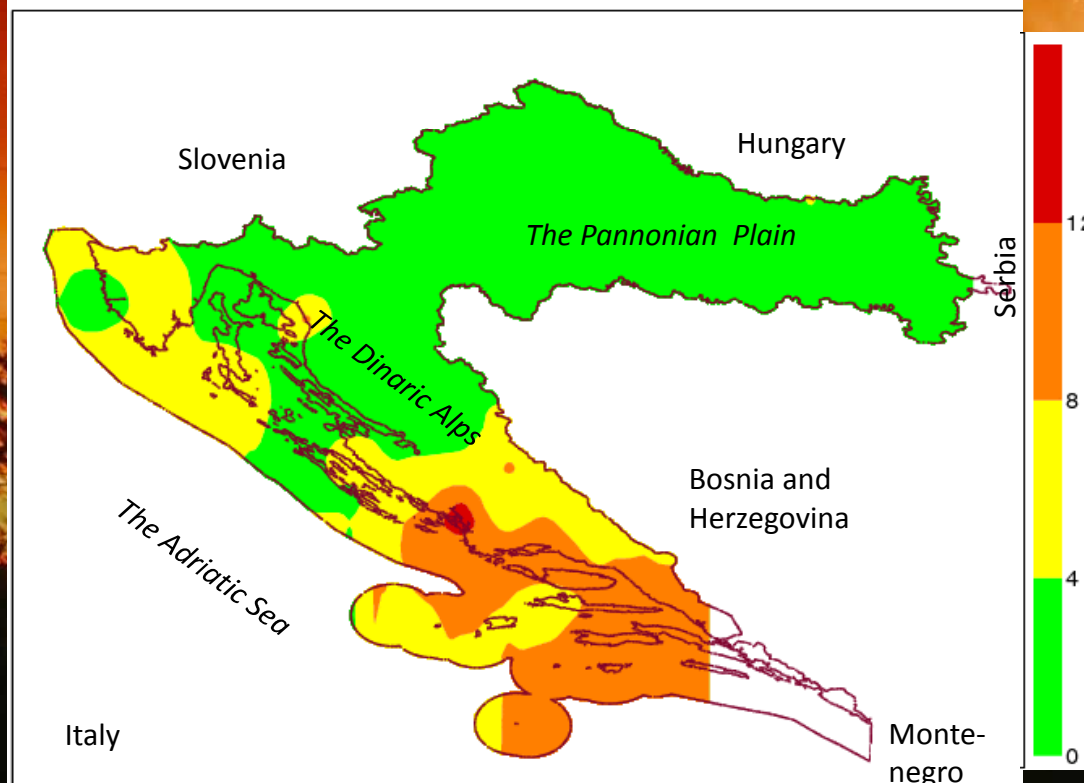


Photo: Damira Kalajzić

## Agrometeorological mosaic for youth: Little School “Fire is no joke”

Extremly warm years	Burned area (ha)
2017	<b>110 000</b>
2012	41 305
2007	19 121
2003	14 155
2000	27 407
<b>1997-2008</b>	<b>8951</b>

Crown fire  
Pelješac 20 July 2015

Mean SSR (1981-2010)

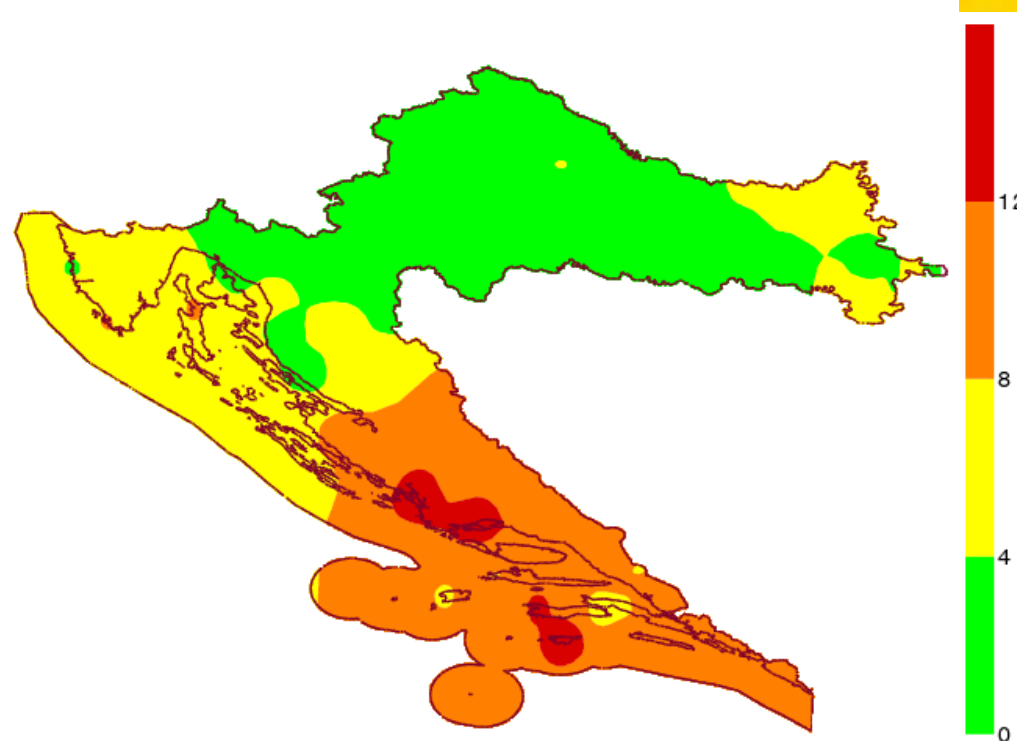


Photo: Grgo Jelavić





**DO NOT PLAY WITH  
FLAME AND SMOKE  
FIRE IS NO JOKE!**

Comic book



## Agrometeorological mosaic for youth: Little School “Fire is no joke”

- 92 Little Schools “Fire is no joke”
- 2 premieres of the film in Dubrovnik and Zagreb
- 4 projections of the animated film







# *6 years* Croatian Agrometeorological Society





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THANK YOU



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