

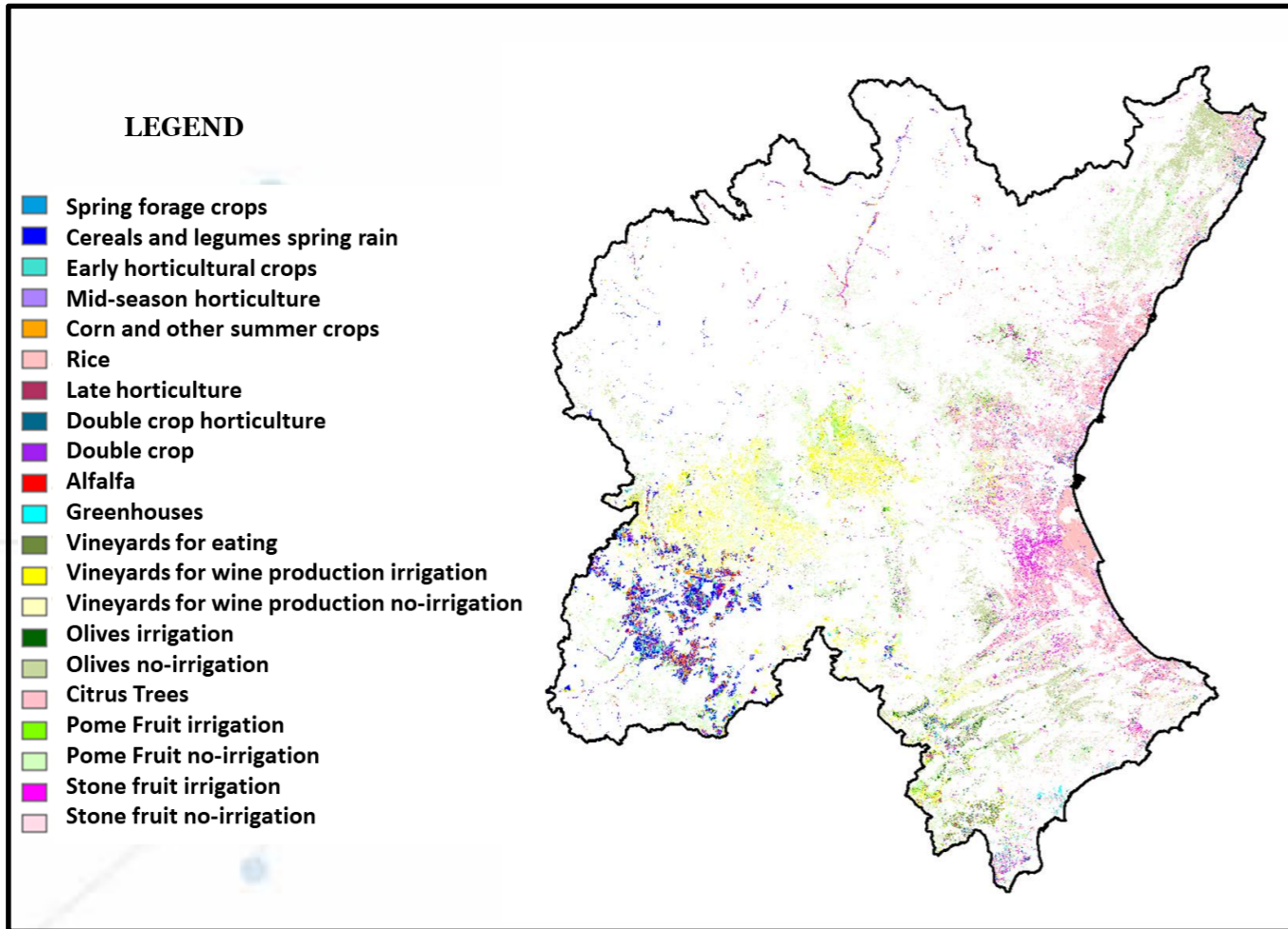
Calera*, A., González-Piqueras*, J., Arellano*, I., Molina*, A.J., Sánchez*, D., Galve*, J. M., Simón*, A.M., Plaza**, C., López**, M. Ll., Henao**, E., Campoy**, J., Cuesta**, A., Calera**, M., Osann**, A.

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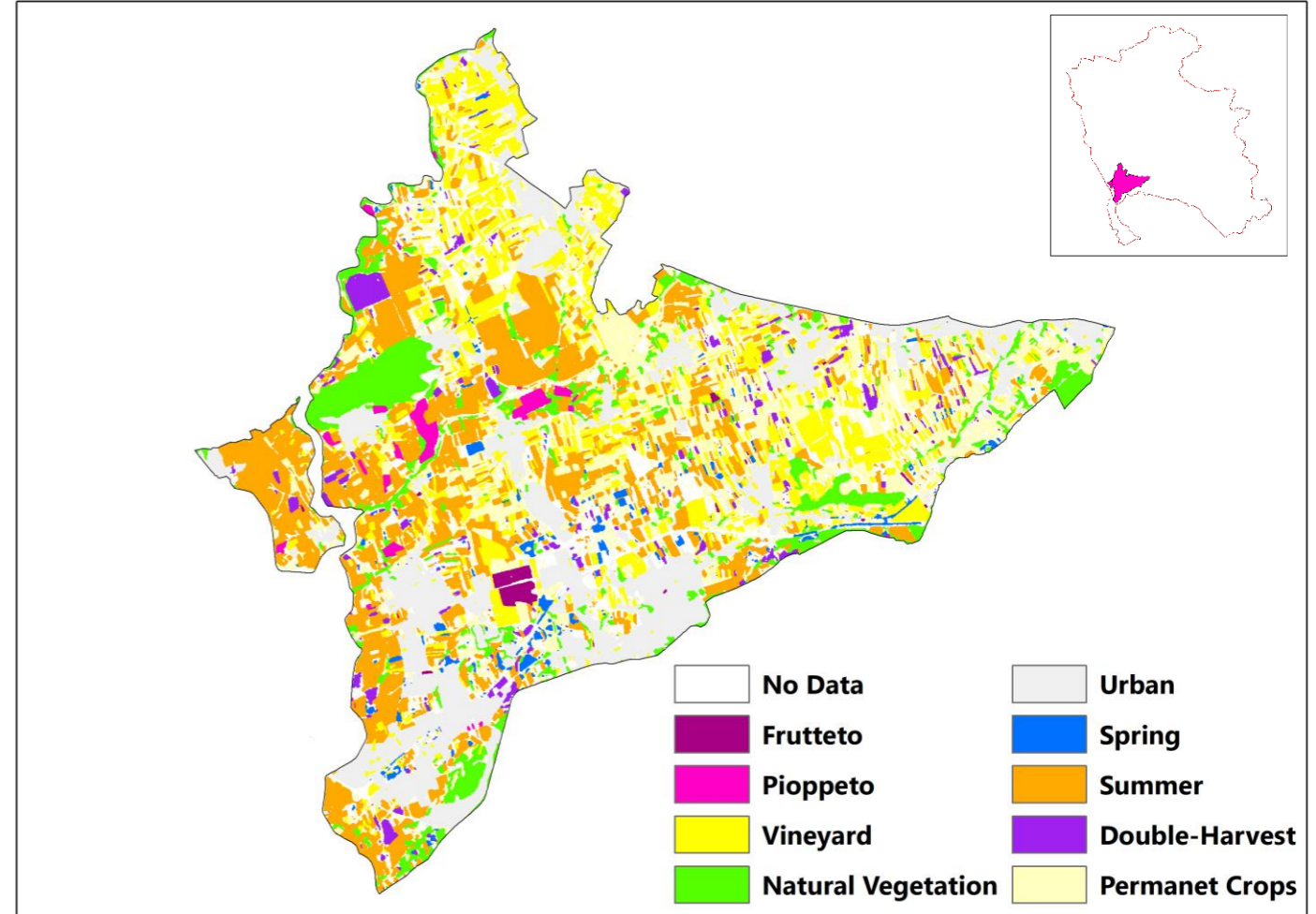
**Agrisat Iberia, S.I., P.º de la Innovación, 1, 02006 Albacete

USO E IDONEITÀ DEL TERRENO

USO DEL SUOLO 2017 D.H. JÚCAR (SPAGNA)



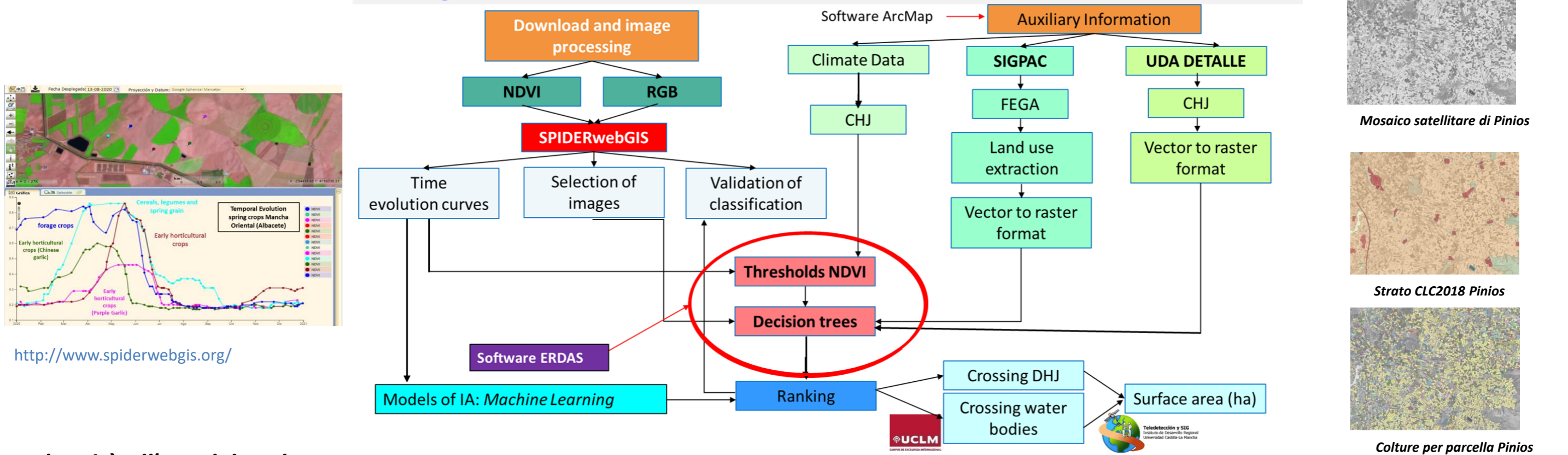
USO DEL TERRITORIO 2018 Bacino del fiume ISONZO-SOČA (area dimostrativa)



Usa del suolo

METODOLOGIA

Working outline



Idoneità all'uso del suolo

Land Use Suitability (<https://gaez.fao.org>)

| Classi di idoneità FAO | Caratterizzazione | Prestazioni/punteggio Sys et al., (1991) |
|------------------------|----------------------------|--|
| S1 | Altamente adatto | [100-98] |
| S2 | Mediamente adatto | [98-85] |
| S3 | Marginalmente adatto | [85-60] |
| N1 | Temporaneamente non idoneo | [60-45] |
| N2 | Permanentemente non idoneo | < 45 |

Category CIP: Soil, Water, Climate, Topography, Socioeconomic, Environmental, Management

| Indicator CIP | CLIMATIC | CIP | | | | | | |
|-------------------|---|-----|-----|-----|-----|-----|----|-----|
| | | VAR | S1 | S2 | S3 | N1 | N2 | |
| Temperature | Precipitation of growing cycle (mm) | 700 | 450 | 350 | 250 | 200 | - | <00 |
| | Monthly rainfall vegetative storage (mm) | 65 | 45 | 20 | 12 | 8 | - | <0 |
| | Monthly rainfall flowering stage (mm) | 75 | 60 | 30 | 15 | 10 | - | <10 |
| | Monthly rainfall of ripening stage (mm) | 60 | 50 | 30 | 20 | 10 | - | <10 |
| | Mean temperature of the growing cycle (°C) | 18 | 20 | 23 | 25 | 30 | - | >30 |
| Thermal amplitude | Mean temperature of the vegetative cycle (°C) | 10 | 8 | 6 | 4 | 2 | - | <0 |
| | Mean temperature of the flowering stage (°C) | 18 | 14 | 12 | 10 | 8 | - | <8 |
| | Mean temperature of ripening stage (°C) | 20 | 15 | 14 | 12 | 10 | - | <10 |
| | Average daily min temperature of the coldest month combined with average daily max temperature of coldest months (°C) | <8 | 8 | 18 | 8 | 18 | - | - |

$$IP_1 = \frac{\prod_{i=1}^n a_i}{100^{n-1}} = [0-100]$$

$$IP_2 = \frac{\prod_{i=1}^n a_i}{100^{n-1}} = [0-100]$$

$$CIP_1 = \frac{\prod_{i=1}^n IP_i}{100^{n-1}} = [0-100]$$

Suitability Indicator

Clustering by FAO classes

| FAO suitability classes | Characterization | Performance/Score Sys et al., (1991) |
|-------------------------|------------------------|--------------------------------------|
| S1 | Highly suitable | [100-98] |
| S2 | Average suitable | [98-85] |
| S3 | Marginal suitable | [85-60] |
| N1 | Temporary unsuitable | [60-45] |
| N2 | Permanently unsuitable | < 45 |

(R/Phyton, SOM)

<https://www.r-bloggers.com/2021/04/self-organizing-maps-in-r-supervised-vs-unsupervised/>

Bibliografia

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 Sys et al., 1991, Land Evaluation: Principles in Land Evaluation and Crop Production Calculations, Amministrazione generale per la cooperazione allo sviluppo.