

Climate Local Information in the Mediterranean region Responding to User Needs



Facilitating a stakeholder-led approach to the development of Mediterranean climate services: co-ordinating the CLIM-RUN case studies

CLIM-RUN

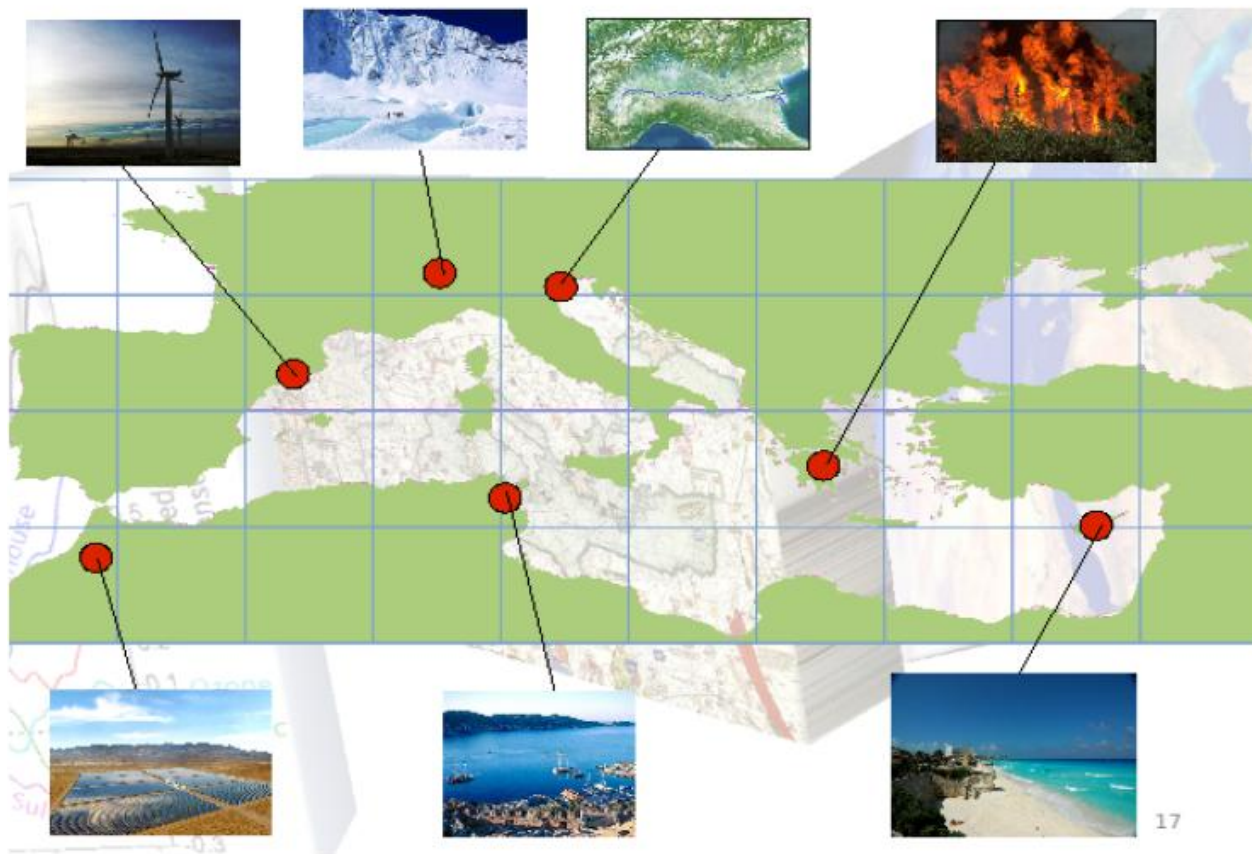


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GREVACHOT(Tunisia) JRC (Spain) DHMZ (Croatia) USMD(US) UC(Spain)

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Tourism: Tunisia, France (Savoie), Cyprus, Croatia - next talk

Energy: Spain, Morocco, Cyprus, Croatia

Wild Fires: Greece (Spain) – poster XY315

Integrated Case Study: North Adriatic – Veneto/Venice – poster XY316;
Croatia

CLIM-RUN Objectives



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- How to identify user needs? (WP4, WP5-8)
- How to initiate and maintain/develop stakeholder involvement? (WP1, WP4, WP5-8)
- How to prepare modeling tools and observational data and products? (WP2, WP3)
- How to develop a Climate User Interface prototype? (WP1)
- How to develop a more generic protocol? (WP1)
- How to develop Climate Services training? (WP9)

Seasonal forecasts, through decadal prediction, to climate projections

Key CLIM-RUN stages



- Stage setting (complete)
 - first stakeholder workshops
- Mapping the issues (complete)
 - perception and data needs questionnaires
- Iterative consultation and collaboration (ongoing)
 - including two training workshops (Oct 2012/Aug 2013)
- Consolidation and collective review/assessment
 - second stakeholder workshops (February 2013)
- Going forward: synthesis and recommendations
 - final workshop and end of project (February 2014)

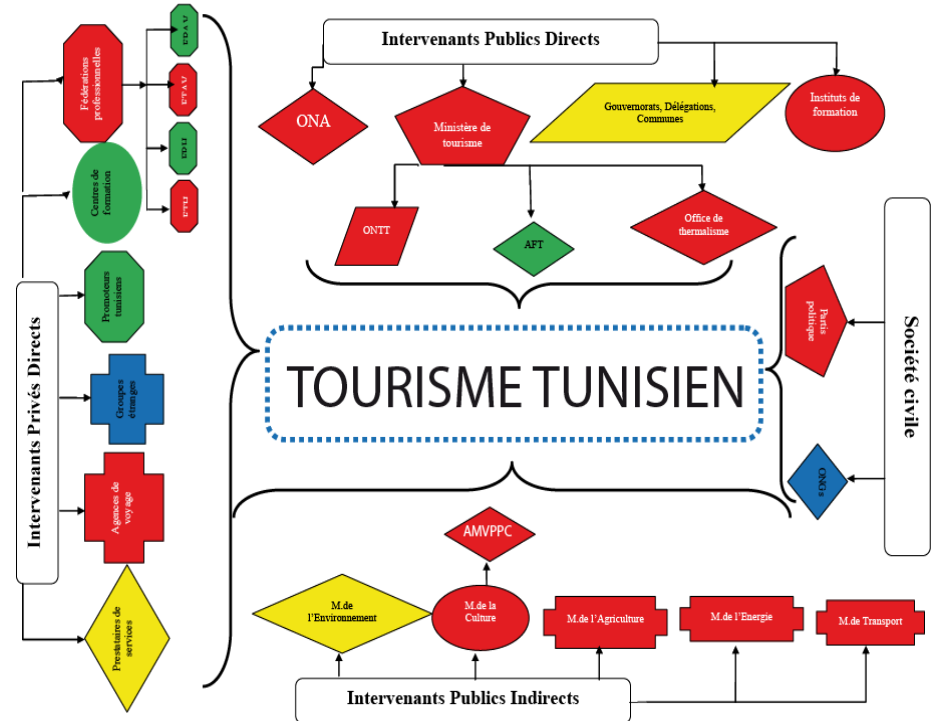
Identifying and selecting stakeholders

e.g., Venice case study used ranking (from WP1) based on:

- importance
- influence
- effects
- relevance
- attitude



| Level | Veneto | Friuli Venezia Giulia |
|--------------------------------|---|---|
| Macro | | |
| National | ▪ Civil Protection, regional office | ▪ Civil Protection, regional office |
| Inter-regional | ▪ Autorità di bacino delle Alpi Orientali ▪ Autorità di bacino dell'Alto Adriatico ▪ Autorità di bacino del Po | |
| Regional | ▪ ARPAV ▪ Segreteria regionale per l'ambiente ▪ Segreteria regionale per le infrastrutture e l'urbanistica ▪ Genio Civile (Regione Veneto) ▪ Segreteria regionale per la cultura e turismo ▪ Pesca ed acquacoltura ▪ Servizio idrico integrato: ATO ▪ Industria ▪ Energia | ▪ ARPA FVG ▪ Sviluppo sostenibile ▪ Urbanistica e pianificazione territoriale (incluso infrastrutture) ▪ Aree naturali e biodiversità ▪ Ente tutela pesca ▪ Servizio idrico integrato ▪ Industria ▪ Energia ▪ Turismo |
| Independent Authorities | ▪ Port Authority of Venice ▪ ASPO Chioggia ▪ Magistrato delle acque di Venezia ▪ Consorzio di Bonifica Adige Po ▪ Consorzio di Bonifica Delta Po Adige ▪ Consorzio di Bonifica Adige Euganeo ▪ Consorzio di Bonifica Bacchiglione ▪ Consorzio di Bonifica Acque Risorgive ▪ Consorzio di bonifica Piave ▪ Consorzio di Bonifica Veneto Orientale | ▪ Port Authority of Trieste ▪ ASPO Monfalcone ▪ Consorzio di Bonifica Bassa Friulana ▪ Consorzio di Bonifica Cellina Meduna ▪ Consorzio di Bonifica Leda Tagliamento ▪ Consorzio di Bonifica Pianura Isontina |
| Parks and reserves | ▪ Parco Regionale Veneto del Delta del Po ▪ Riserva Naturale Bocche di Po ▪ Riserva Naturale Integrale Bosco Nordio | ▪ Area Marina Protetta di Miramare ▪ Riserva Naturale della Foce dell'Isonzo ▪ Riserva Naturale Foci dello Stella ▪ Riserva Naturale della Valle Canal Novo ▪ Riserva Naturale della Valle Cavanata ▪ Riserva Naturale delle Falesie di Duino ▪ Riserva Naturale regionale laghi di Doberdò e Pietrarsa ▪ Riserva Naturale della Val Rosandra ▪ Biotopo Magredi di San Canciano |
| Provinces | ▪ Venezia ▪ Rovigo | ▪ Trieste ▪ Gorizia ▪ Udine |
| Municipalities | ▪ San Michele al Tagliamento ▪ Caorle, Eraclea ▪ Jesolo ▪ Cavallino-Treporti ▪ Venezia ▪ Chioggia ▪ Rosolina ▪ Porto Viro ▪ Porto Tolle | ▪ Muggia ▪ Trieste ▪ Duino Aurisina ▪ Monfalcone ▪ Staranzano ▪ Grado ▪ Marano Lagunare ▪ Lignano Sabbiadoro |
| Micro | | |

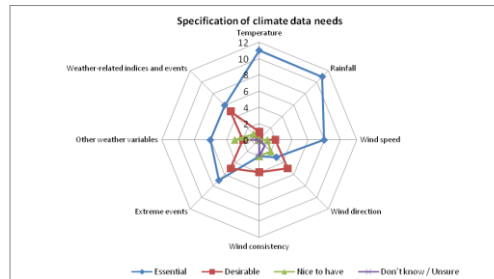


| Type d'activité | Echelle d'intervention |
|-----------------|-------------------------------|
| ⬡ | Législatif |
| ⬢ | Investissement et financement |
| ⬣ | Politique |
| ⬠ | Environnement et aménagement |
| ⊕ | Economie |
| ◯ | Formation |

e.g., key players in the Tunisian tourism industry

The 'who' and the 'what'

- Who are the climate services stakeholders?
 - Why is climate variability and change relevant to them?
 - How do climate issues fit within their decision making mechanisms and their perception of risk?
- What do they need/want from climate services?
 - Specific data
 - Analysis tools
 - Guidance and training
 - Other things.....



Information has come from:

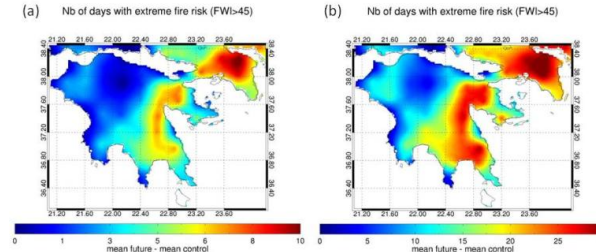
- Perception & data needs questionnaire
- Stakeholder interviews
- Local workshops (15 events)

So **‘what’** do stakeholders need?

- Temp & prec and derived indices
- Wind (speed, dir., ‘consistency’) snow, humidity, cloud
- Radiation (esp. DNI for solar energy)
- Temp & prec extremes (based on fixed thresholds)
- Sea bathing water T, SLR, storm surge, wave height
- Local winds (Bora, Scirocco) and dust storms
- Tourism comfort indices & Fire Weather Index
- More interest in next 20-30 years (50 years at most)
- i.e., seasonal/decadal rather than ‘climate’

How to meet stakeholder needs?

- ‘Translation’ process – Climate Expert Team (CET)
- Categorising needs (observations/simulations):
 - not possible to provide
 - already available
 - easy to provide
 - able to provide, but with a lot of work
- Production of first examples of products and outputs
- Definition of new modelling tools required
- Iterative discussion with stakeholders (through SET)



Moving forward: some issues to think about



Questionnaire design:

- flexibility vs consistency; level of detail

Stakeholder engagement:

- difficulties and differences in this and expertise/motivation
- demonstrating the value of climate services
- differences between 'useful', 'usable' and 'being used'

The next steps

- Continue to translate and implement user needs
- Use a range of methods and approaches (e.g., newsletters, briefing notes and other web-based material) to facilitate continuing stakeholder engagement
- Try to improve participation in areas where engagement is weak

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