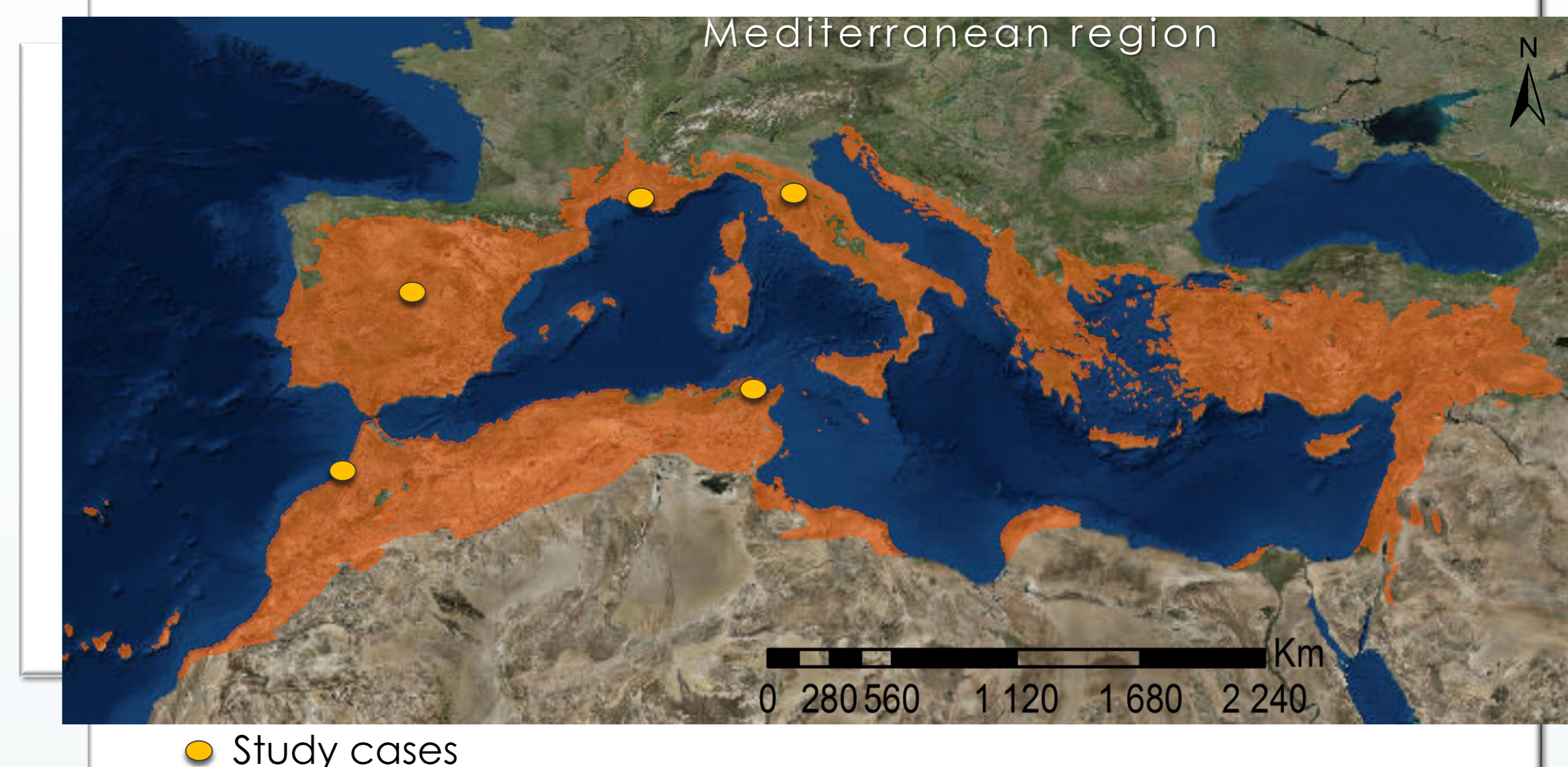




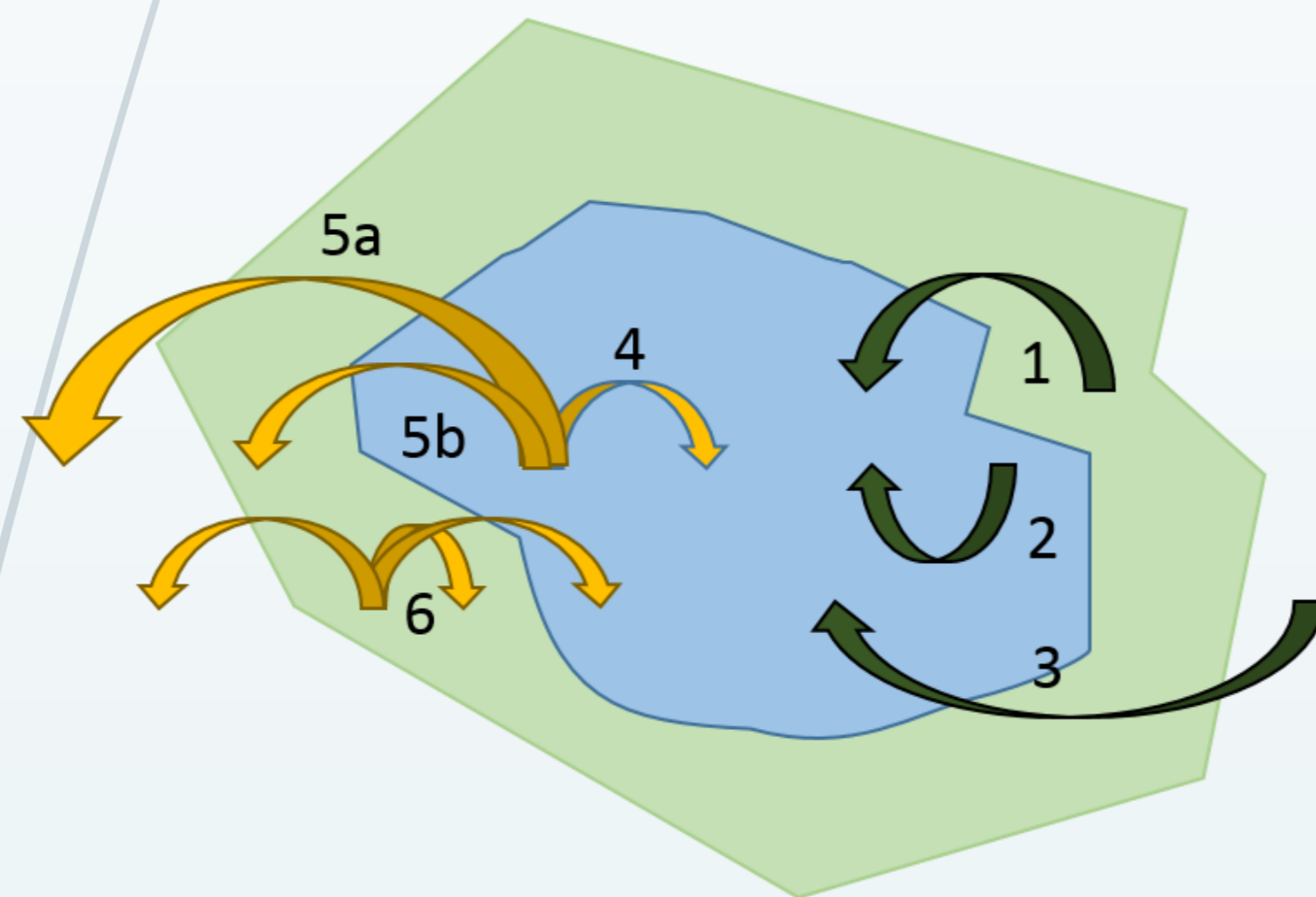
I.R. Geizendorffer, A.P. García-Nieto, P.K.D. Roche, B. Martín-López, A. Bondeau and W. Cramer

Material and methods

- Compare mapped changes in supply with stakeholder estimations of changes in supply (Oteros-Rozas et al. 2013)
- Compare trend in ES supply with trends in ES demand to identify possible future bottlenecks
- Table based on literature and expert estimations



Different supply and demand flows

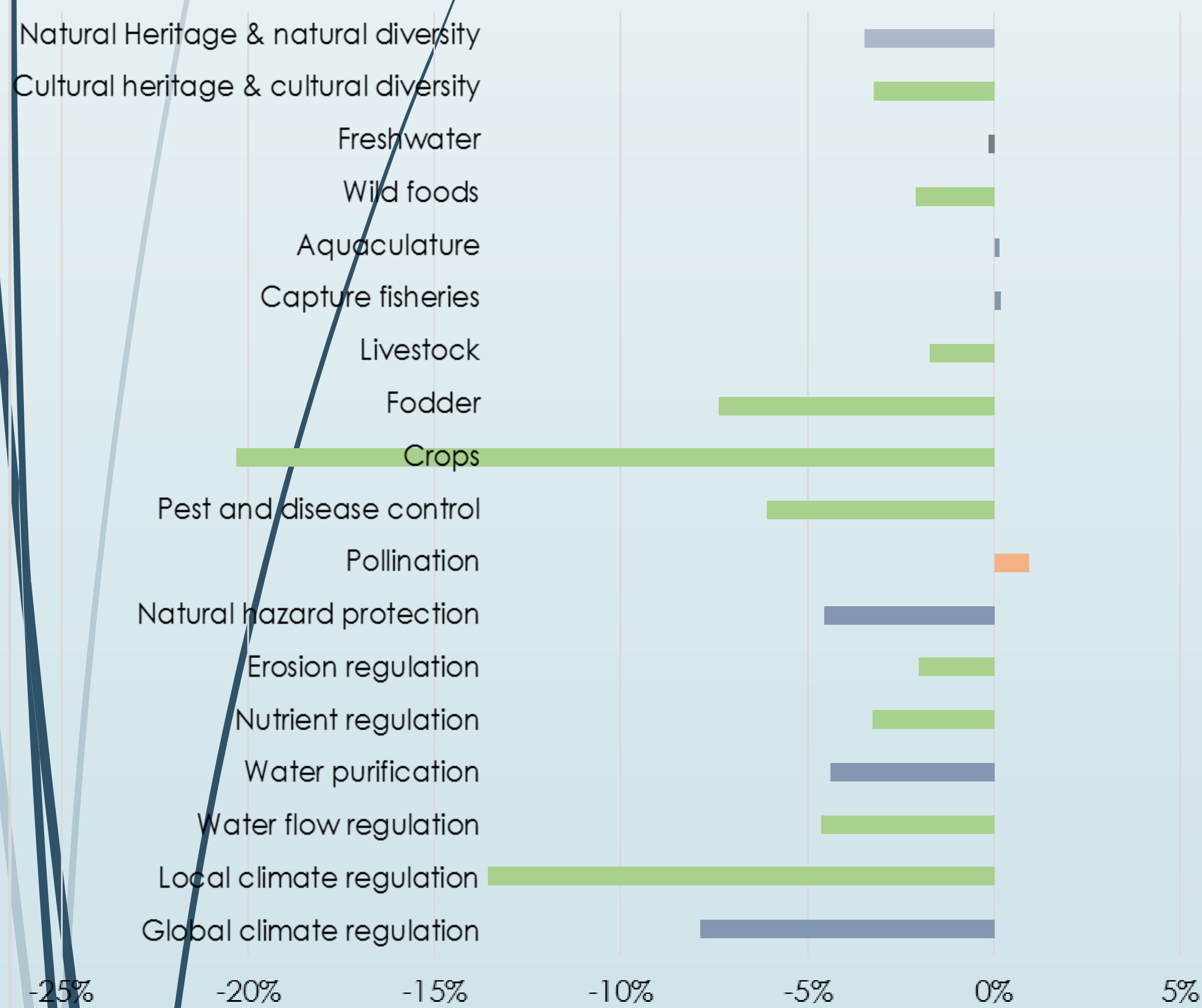


- ➔ 1. Supply by the surrounding area to the urban area
- ➔ 2. Supply by the green and blue elements within the urban area
- ➔ 3. Supply by areas further away
- ➔ 4. Demand of the urban population for local services (e.g. shading and temperature regulation)
- ➔ 5. Demand of the urban population of services from outside the urban areas: e.g. food with global (5a) or regional origins (5b)
- ➔ 6. Demand of the rural population for services.

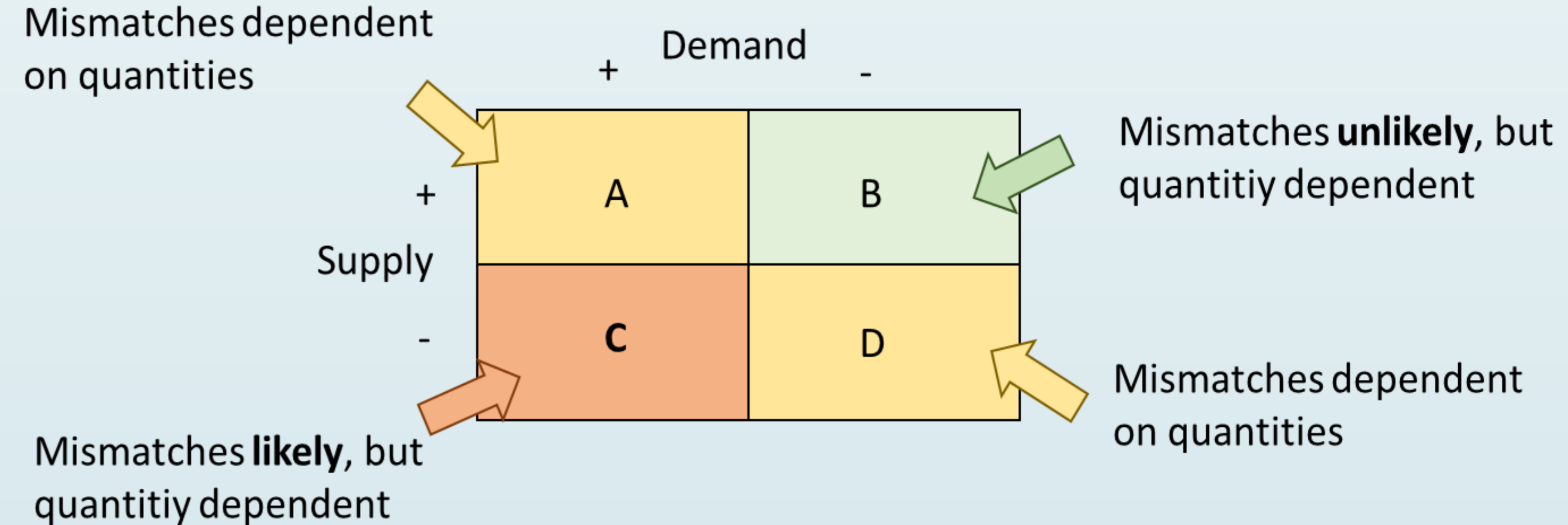
Results

Comparing the average European ES supply trend with stakeholders perceptions of ES supply trends

For which services can we expect problems in the future? A supply and demand trend analysis comparison



Mismatches dependent on quantities



	Florence	Madrid	Marseille	Total Europe	Rabat	Tunis	Total
A's	29%	13%	21%	21%	33%	46%	28%
B's	17%	8%	17%	14%	21%	21%	17%
C's	38%	54%	46%	46%	33%	21%	38%
D's	17%	25%	17%	19%	13%	13%	17%

Conclusions

- The method works well in general, but the further **quantification** of ES supply and demand **needs an additional approach**.
- There are differences in ES supply trends, but generally **the provisioning and regulating services are decreasing**.
- Cultural services show more variable outcomes.
- Stakeholders' perception of trends in supply largely support the mapped trends.
- Based in a qualitative analysis, **mismatches between urban demand and rural supply can be expected** for many services in the future.

Future improvements

Methodology

- More cities will be added to increase the significance of results.
- Different boundary options for urban and rural areas will be explored.
- Expert assessment table will be adapted to Mediterranean conditions.

Analysis

- A quantitative analysis will be performed for food, timber and water.
- A quantitative supply and demand analysis taking into account the whole Mediterranean Basin will be performed. Where possible the import and export of ES supply or demand will be taken into account.

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