



# GNSS Real Time Data Flow : some economic aspects

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# GNSS Real Time Data Flow : some economic aspects

## Plan

- Introduction
- Situation in several European countries
- Situation in France
- Problems found in France
- Suggestions
- Legal aspects
- Conclusion

## INTRODUCTION

- Free of charge distribution of data from continuously operating stations :
  - for post-processing : OK
  - In real time : additional issues
- Objective : to get other participants' point of view

## Situation in several european countries

Country	Manager	extent	access to real-time data
Great Britain	Public	national	by partners Charged fees
Spain	Public	national	free
	Public and private (many)	régional	free
Germany	Public	national	free
	Public	National (more dense)	subject to charges
Switzerland	Public	national	DGPS free RTK subject to charges
Netherlands	Public	national	Only for public tasks
	private (many)		subject to charges

## Situation in France

- One permanent network of 189 stations ([RGP](#))
  - IGN : 23 stations
  - Partners : 166 stations (among which : more than 73 % owned by private organisms)
- 4 private real time networks (among which 3 are included in the RGP)
- free access to some stations' streams
- At the IGN : One NTRIP caster :
  - » [18 real time IGN stations](#)
  - » 5 future real time IGN stations
  - » Possibly partners' stations

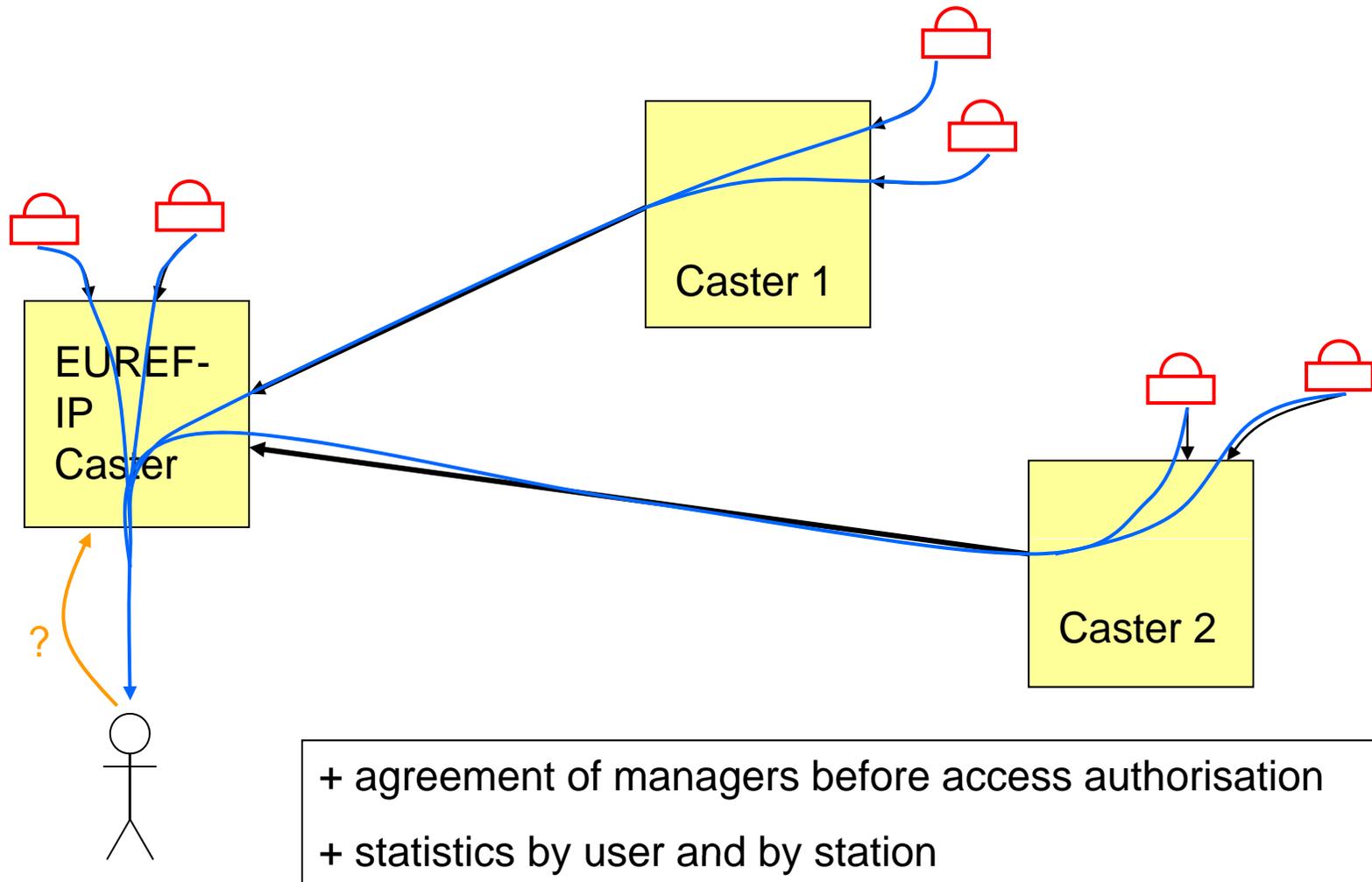
## Problems found in France

- currently : 4 IGN stations in EUREF-IP
- Diffusion of the stream of our 18 (soon 23) stations thought about
  - In case of a free of charge distribution:
    - Partners' point of view :
      - Loss of customers (RTK uses, 40 km around each station)
      - New competitors (DGPS services)
    - Even if :
      - No continuity
      - Out of context, competition is possible with at least 5 stations
    - Overseas territories (islands)

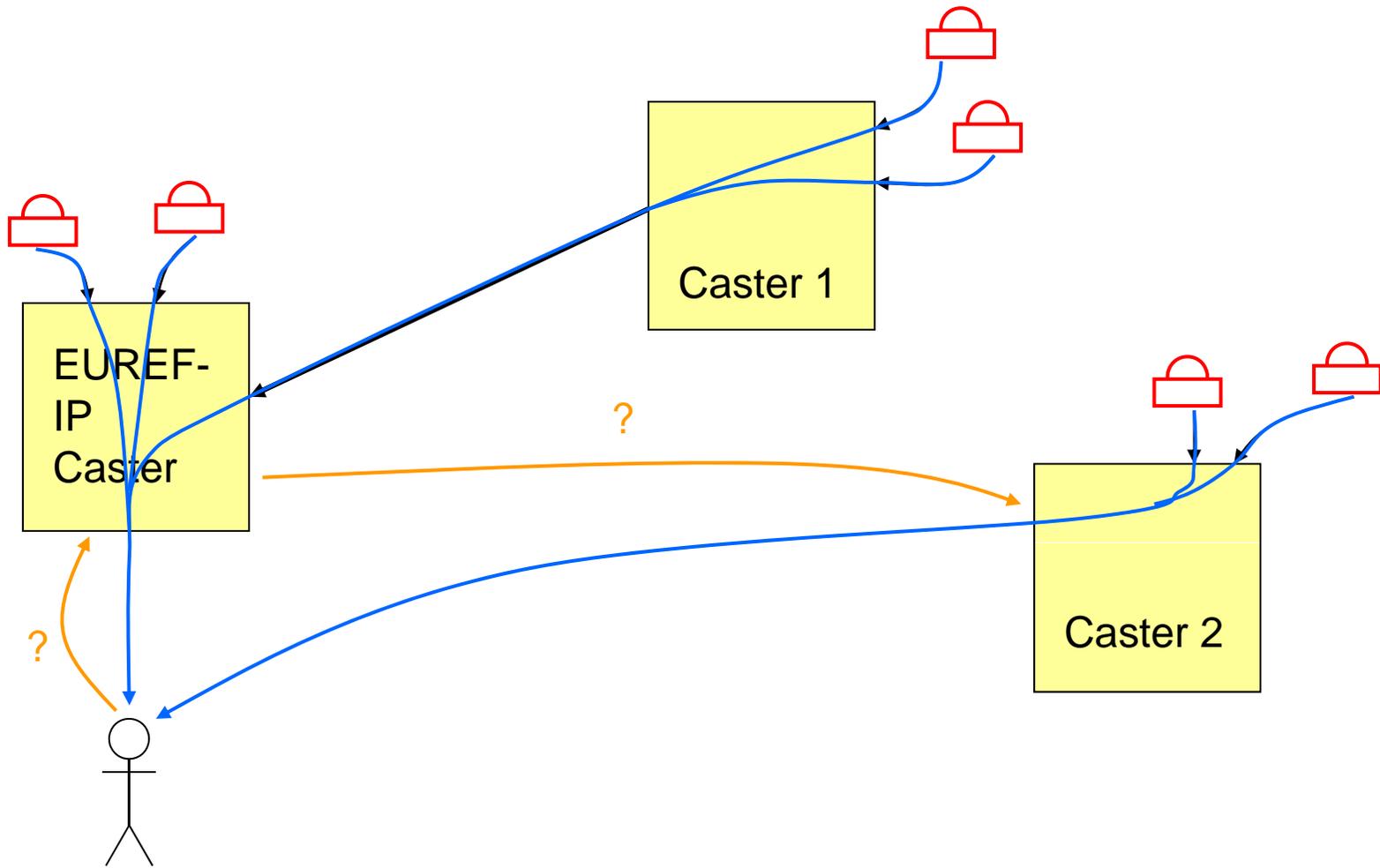
## Problems found in France (2)

- In case of a not free distribution :
  - No participation to EUREF-IP !
  - ... except if distinction could be made between
    - » Commercial uses (subject to charges)
    - » Scientific uses (free of charges)
- Partners agree to a free distribution limited to scientific applications
- Problem : currently, no way to control the streams of EUREF-IP stations

## Suggestion 1



## Suggestion 2

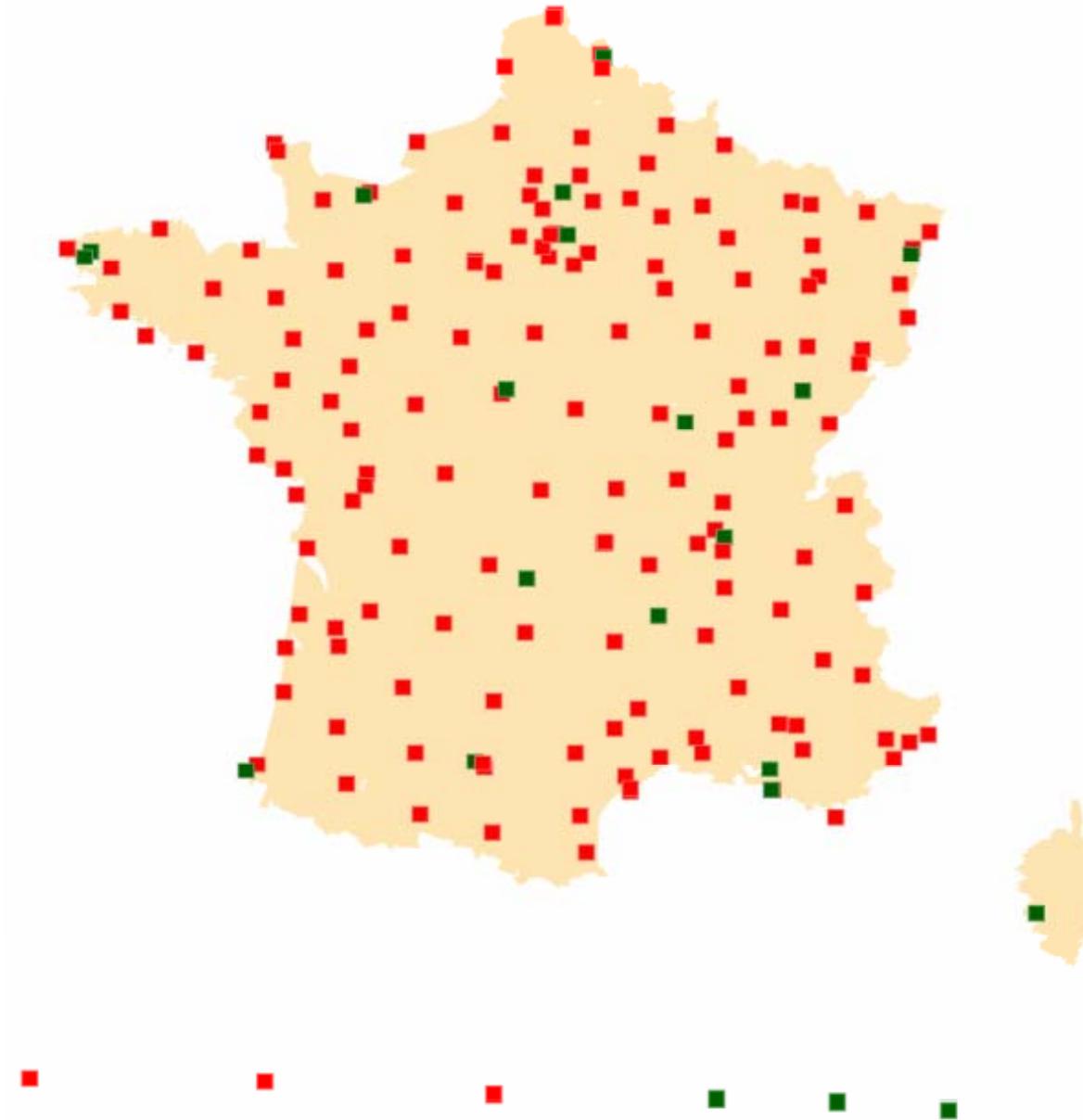


## Legal aspects

- European directive on the re-use of public sector information (2003/98/EC)
- European directive INSPIRE (2007/2/EC)
- In each case : does it apply to us?
  - If yes, for INSPIRE :
    - » Metadata ?
    - » Data ?
    - » Services ?

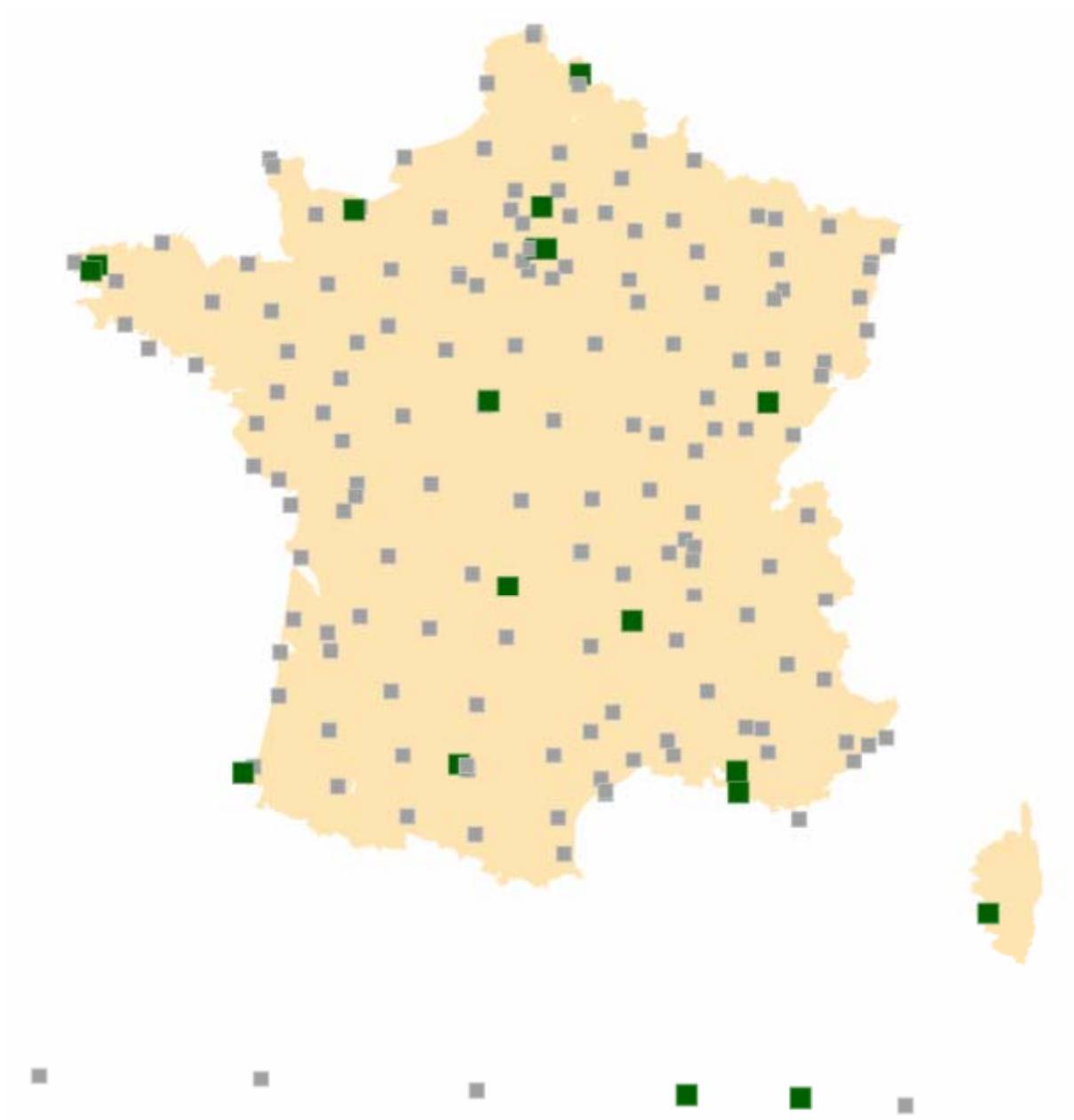
## CONCLUSION

- Does the problem of free distribution, as it works currently, occur in other countries?
- What about the suggestions presented here?



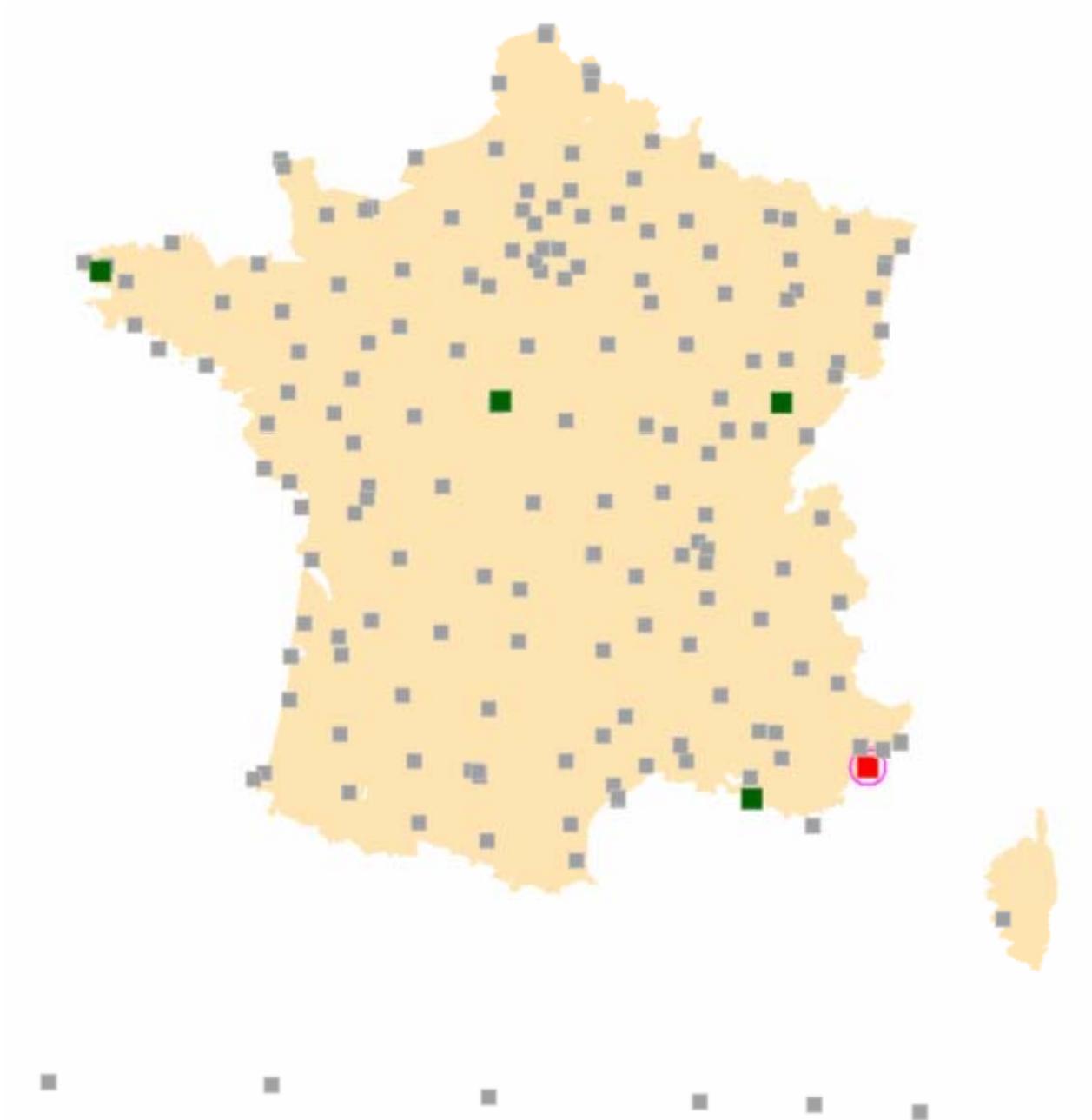
RGP : red = Partners' stations ; green = IGN stations





NTRIP Caster





Euref-IP : red = partners' stations ; green = IGN stations

