

FLOW

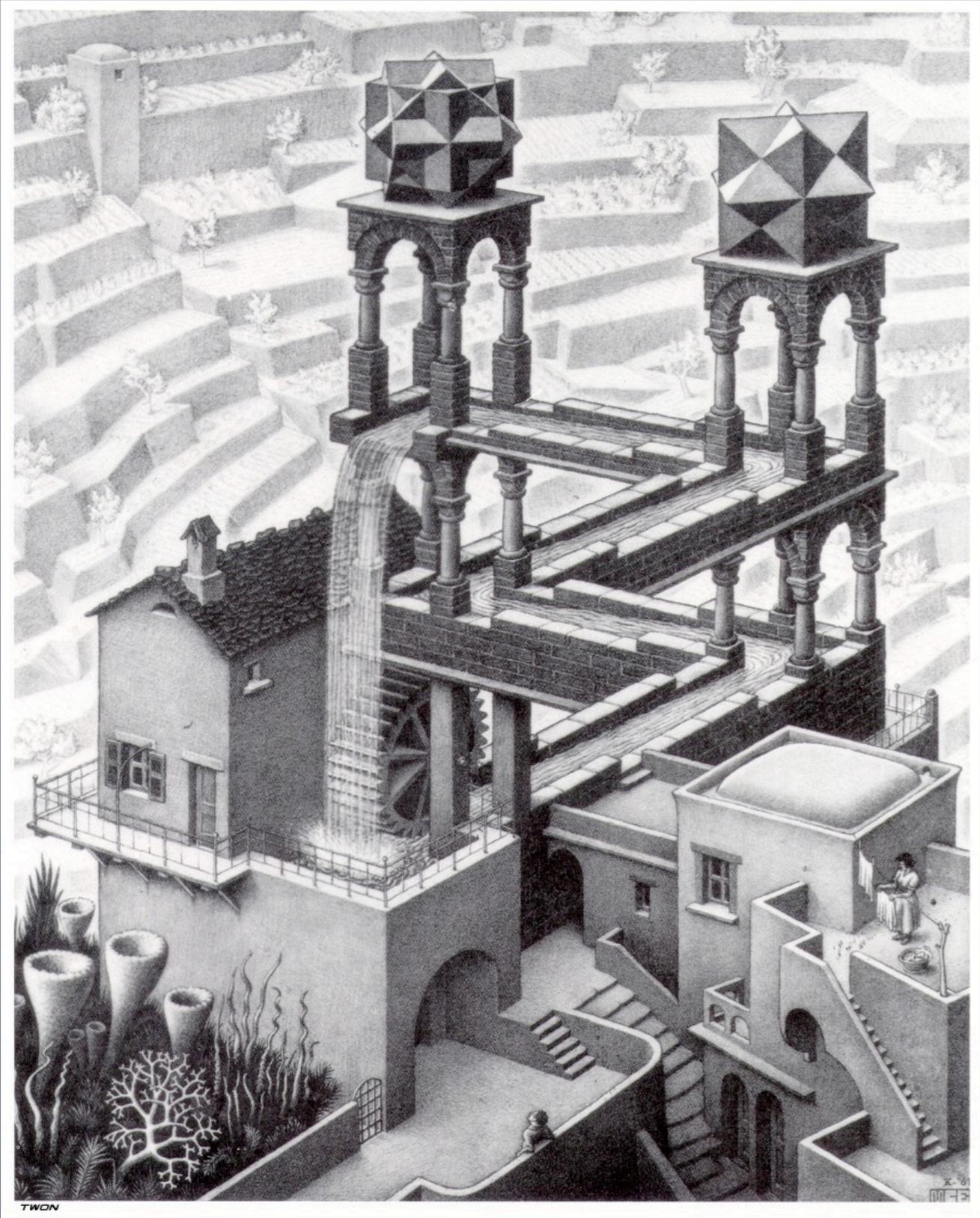
the french LOFAR consortium

M. Tagger, P. Zarka + 30 participants

time line

- long interest in France for LOFAR
- P. Zarka -> already 'planets and exoplanets'
- difficult to introduce among many other national priorities...
- march 2006: Meudon workshop, > 30 participants, positive signals
- -> FLOW consortium, science case and proposal to funding agencies: a LOFAR station in Nançay, join the LOFAR collaboration
- so far so good...

the funding situation



topology and geopolitics of the flow among the funding agencies...

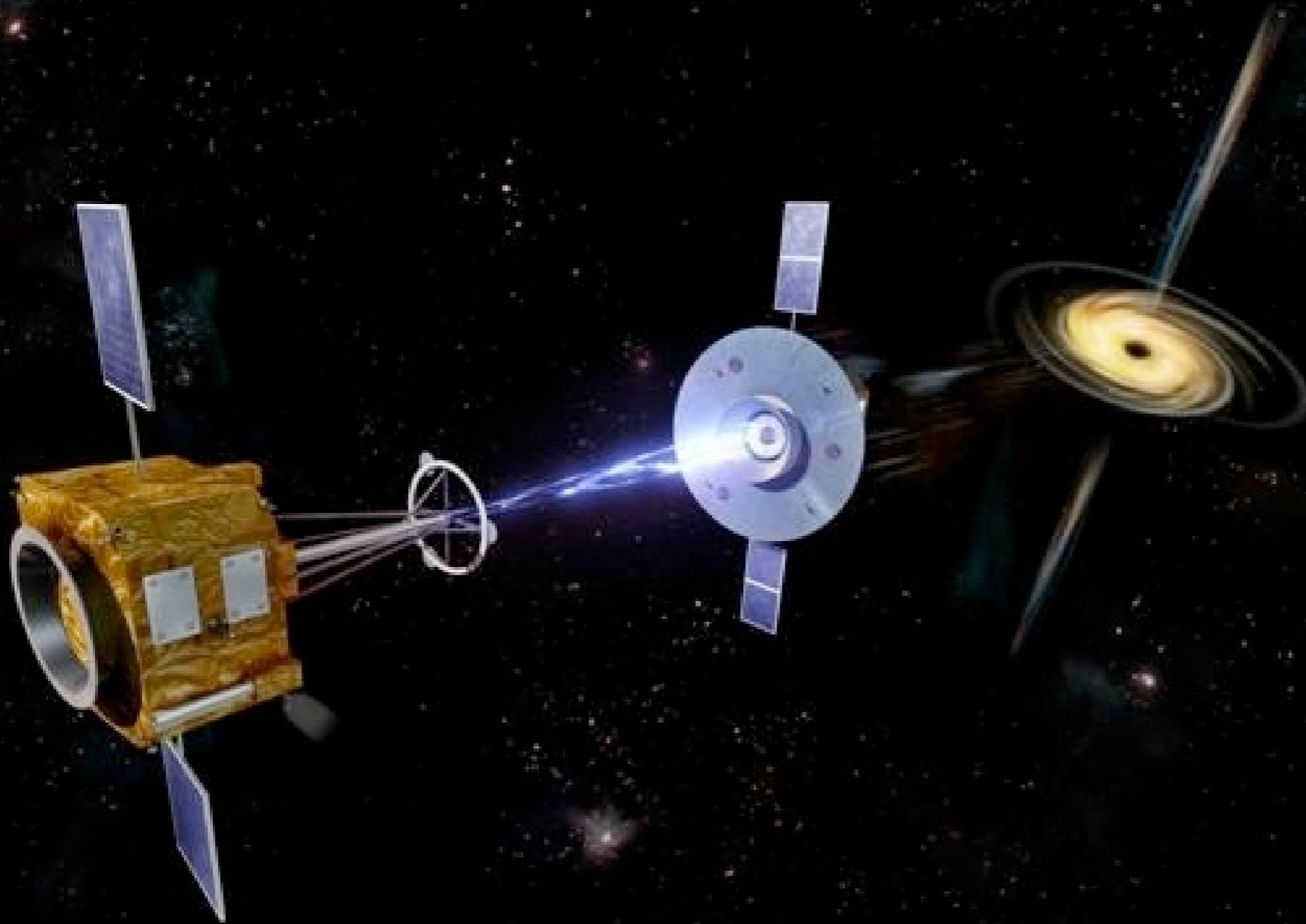
a LOFAR station in Nançay

- proposals to various agencies
 - support from
 - Observatoire de Paris
 - CNRS/INSU, CNRS/IN2P3, CNRS/Programme National Astroparticules, APC
 - OSU-Centre
 - région Centre for the fiber connection
 - Physique des 2 Infinis
- > not yet everything, but clear decision to go-ahead

science

- very strong interest in most topics addressed by LOFAR: EOR, galaxies and clusters, X-ray binaries and AGN, young stars, planets and exoplanets, Sun, atmospheric phenomena (sprites, elves...)
- excellent complementarity with existing or planned instruments: XMM, HESS, Planck, GLAST, Simbol-X, ECLAIRs, Taranis...
- -> minority of radio-astronomers, many specialists of other wavelengths attracted by the prospects of LOFAR
- some interest (to be explored...) in "other" sciences

example of instrumental collaboration:



**formation
flight
with
Simbol-X**

**CNES+ASI, launch 2014
.5-80 keV**

EoR

- agreement between the EoR KP and french Planck scientists for collaboration and exchange of data

solar physics

- expertise in Nançay/LESIA (Meudon) in solar radio interferometry with the Nançay Radio Heliograph
- participation in the new solar KP

transients

- planets and exoplanets (P. Zara, PI of the working group)
- formal discussions in progress on collaborations with GLAST (launch 2008) and Simbol-X (launch 2014) on high-energy sources

magnetism

- participation (theoretical support) in the new Cosmic Magnetism KP

cosmic rays

- french experiment CODALEMA
- possible collaboration with TARANIS
(french microsat, to be launched in 2012,
dedicated to transient luminous events in
the upper atmosphere)

surveys

- interest in extragalactic surveys, galaxies at high redshift
- supernova remnants, plerions...
- possible new working group on galaxy clusters, combining french and italian expertise in radio (L. Feretti) and X-rays (M. Arnaud)

next step: a "super" station?

- original instrumental development
- local use possible (when not used by LOFAR),
- stand-alone -> 2-3 times the existing DAM array
- + local data center, training, etc.
- modest additional cost / standard station
- interest of European participants ?
- feasibility study in Nançay
- funding request possible in feb. 2008
- need for a specific science case:
 - -> European/International contributions ?

a tight schedule

- opportunity of funding by a different french agency (Agence Nationale de la Recherche)
- would not fund part of an instrument (e.g. a 2nd station)
- could fund development, not implementation
- **deadline feb. 29 !**
- -> if our conclusions are positive
 - proposal for development, prototype realization (few antennae) in 2011
 - engineer, post-docs...

