

# Recent advances in the BRAMS project

H. Lamy

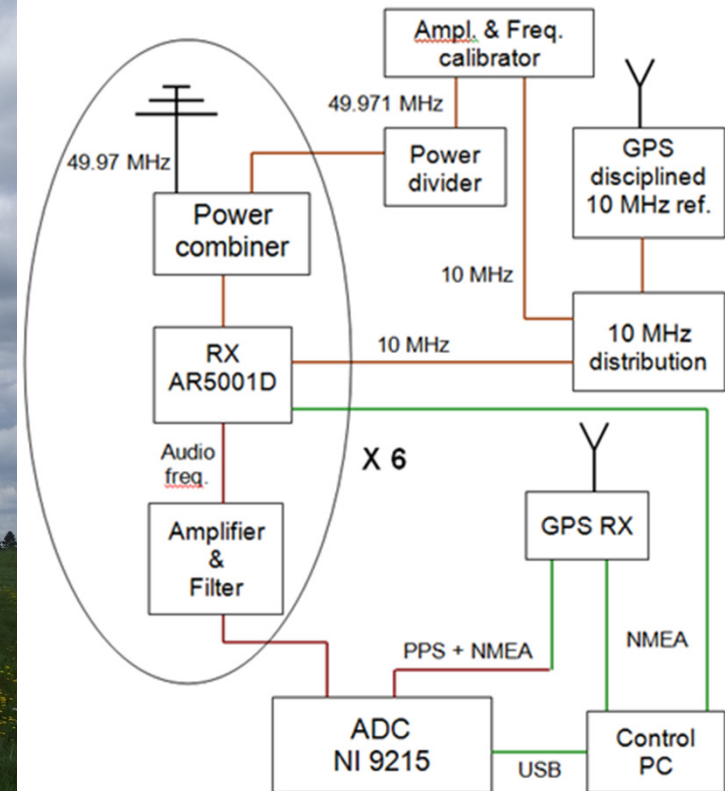
27 june 2015

# Amplitude calibrator for the BRAMS stations



- Main goal : monitor gain and frequency offset/drift at every station
- See talk by Michel Anciaux for details
- Distribution at the end of the meeting

# Interferometer in Humain



- Station fully operational since April 2015
- Data are collected for the 6 antennas and are available on the BRAMS viewer. Tests of the direction retrieval will be done soon.

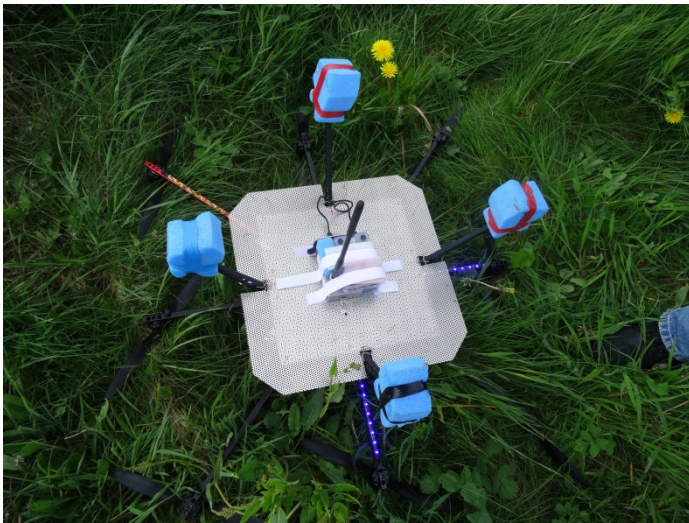
# Interferometer in Humain





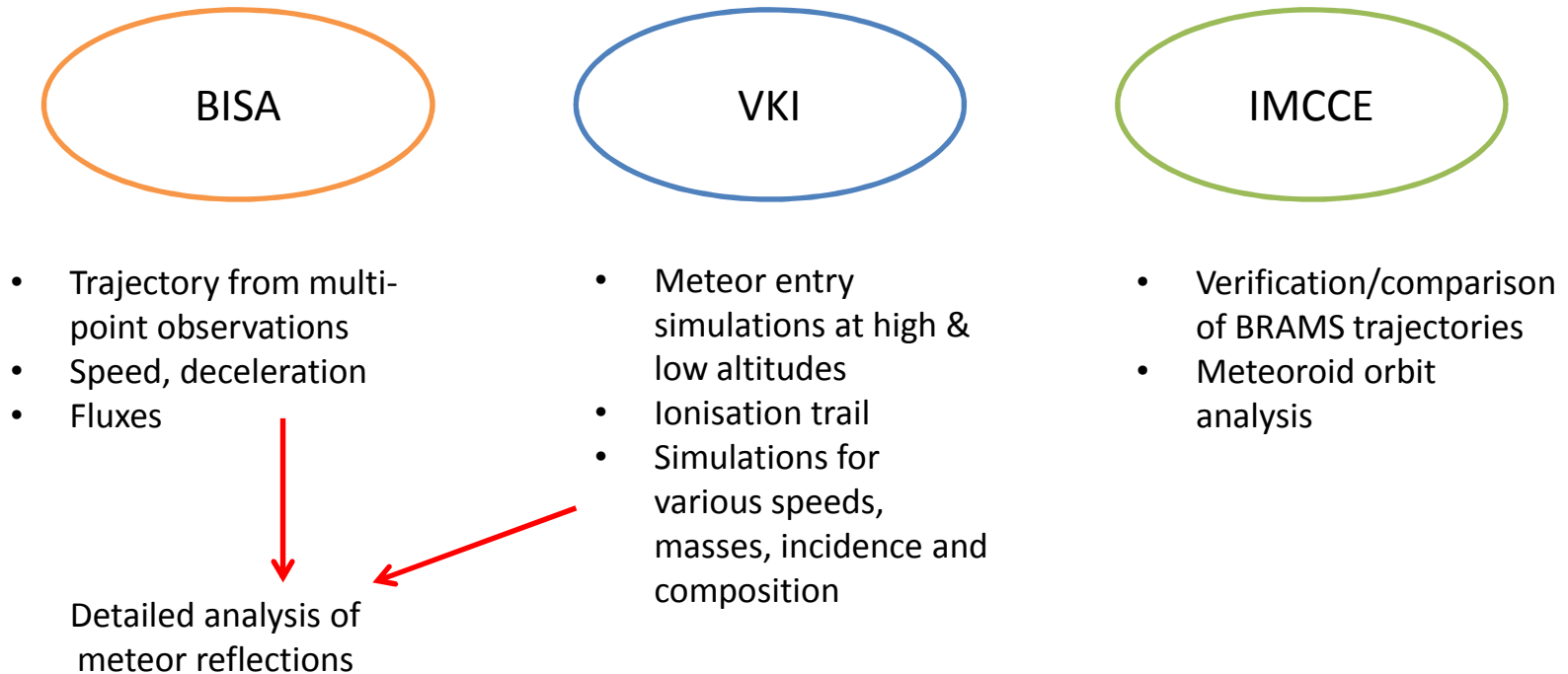
# Calibration measurements

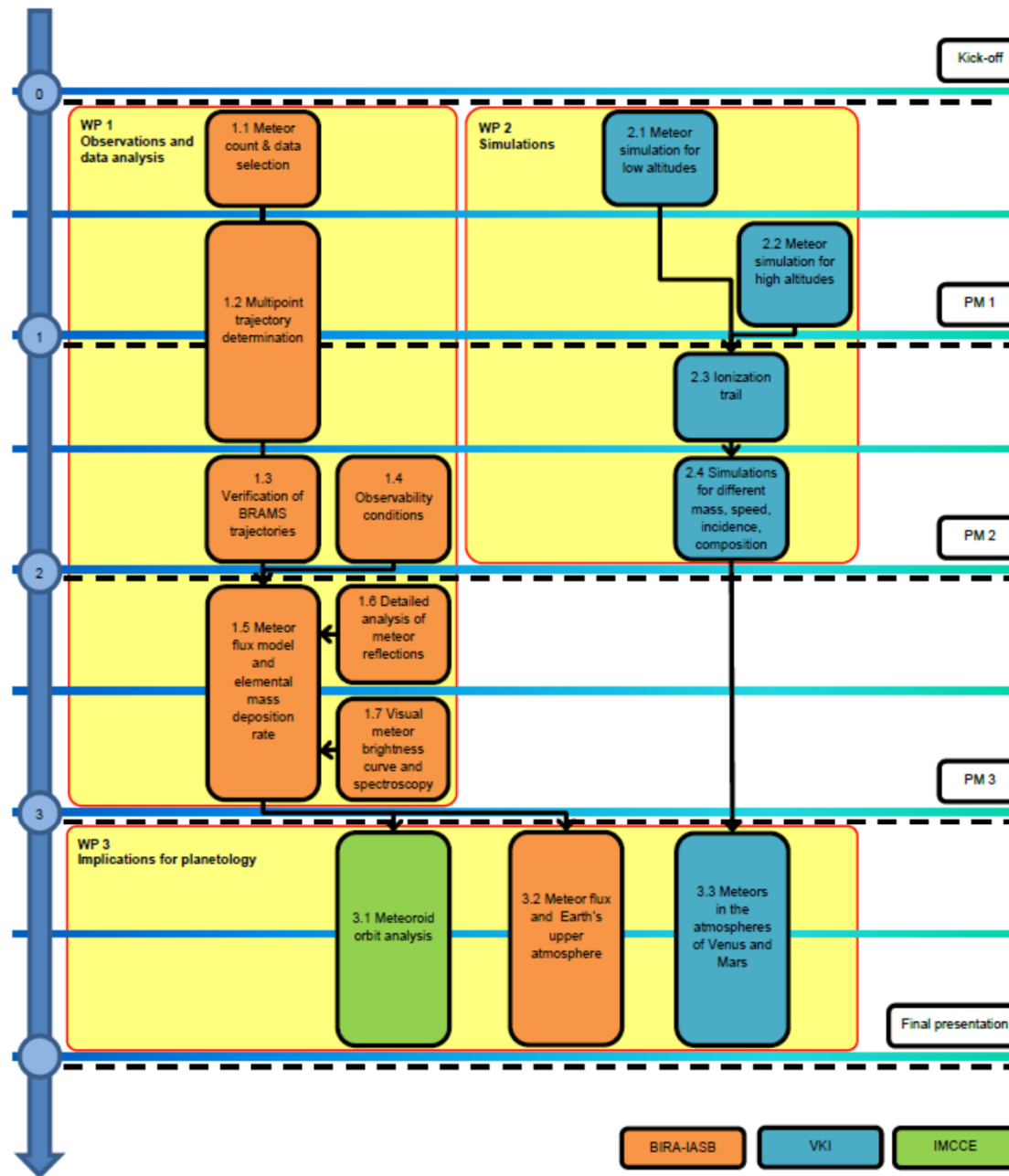
- Continuation of the work done by Antonio Martinez Picar (ROB)
- Uses the amplitude calibrator as the transmitter (payload on the drone)
- Tests currently under way at Humain, done in Dourbes in July, then ???



# METRO : MEteor TRajectories and Origins

- BRAIN-Be networking project of Belspo
- Partners : VKI (BE – PI : Thierry Magin) – IMCCE (FR – PI : Jérémie Vaubaillon)
- Duration : 4 years (start 12/2014 + 6 months extension)





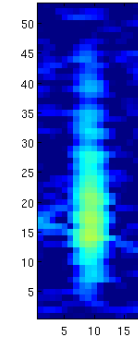
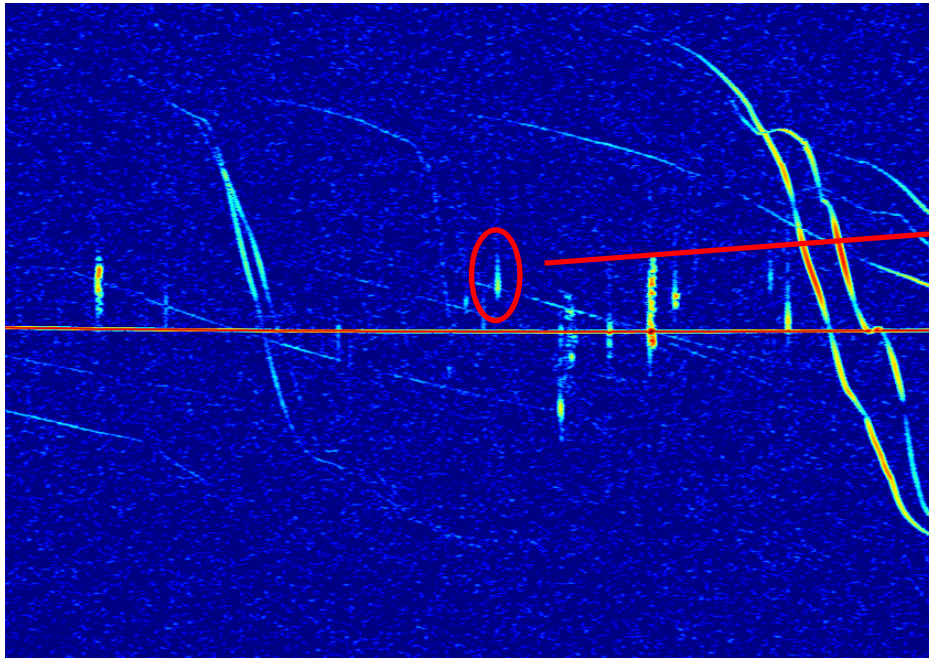
Project logic: an overview of work packages and tasks

# Automatic detection algorithms

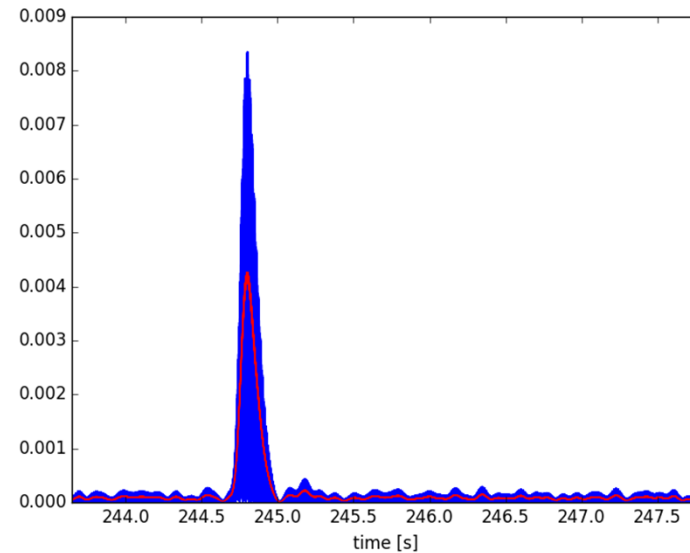
- Tests of the method proposed by Tom Roelandts (using the raw signal) mostly made with the help of a student from ULB.
- 2 sets of data for which manual counts are available were used.
- Victor Roman (Romania) has developed an algorithm of automatic detection using artificial neural networks. Detection rate is around 85%. False negatives are around 18%. Results will be presented at IMC2015.




# Study of underdense meteor echo profiles



See presentations by  
Stijn & Pierre



# BRAMS zoo

CITIZEN SCIENCE  ALLIANCE

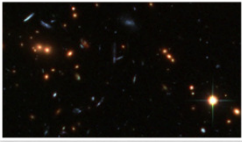
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## WHAT IS THE CITIZEN SCIENCE ALLIANCE?


The **CSA** is a collaboration of scientists, software developers and educators who collectively develop, manage and utilise **internet-based citizen science projects** in order to further science itself, and the public understanding of both science and of the scientific process. These projects use the time, abilities and energies of a **distributed community** of citizen scientists who are our collaborators.

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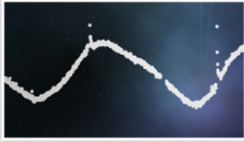
## OUR PROJECTS




Galaxy Zoo: Hubble



Old Weather



Planet Hunters

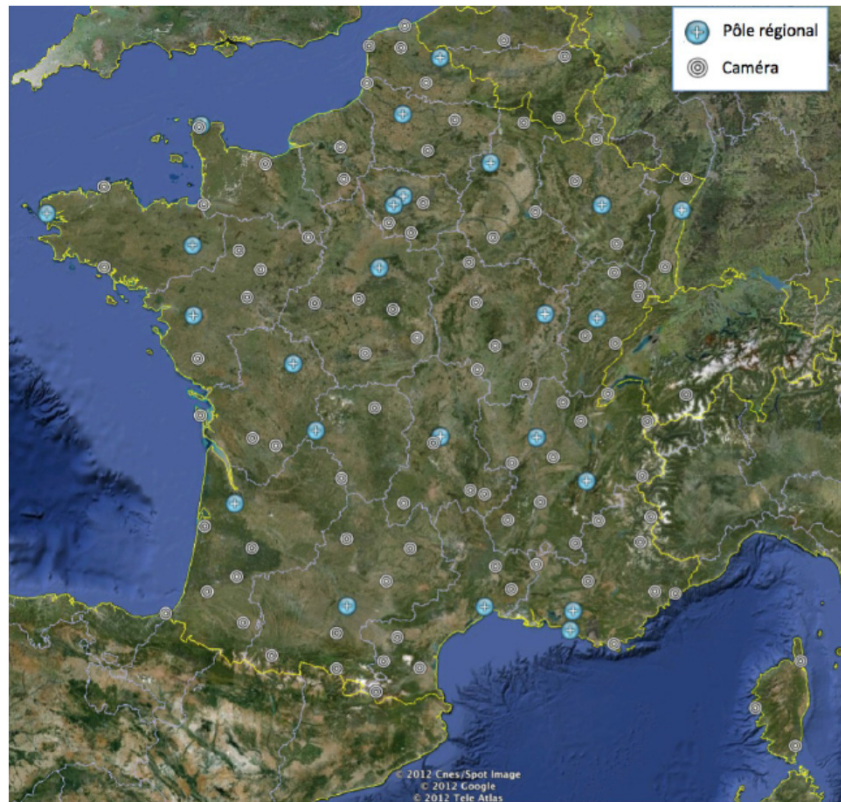


Whale FM

Our projects live within the 'Zooniverse', the home of Citizen Science on the web. Each is inspired by a science team who provide the initial ideas, the reassurance that what we're doing can make a real contribution and an audience who are willing to use the end result. We are working with a wide variety of partners, from classicists to climate scientists and ecologists to planetary scientists. [VIEW ALL PROJECTS](#).

- Crowdsourcing using the resources of Citizen Science
- Manual counts of meteors during specific meteor showers
- Questionnaire to be filled in and peer-reviewed (nearly ready)
- Last question to solve : how many times does a spectrogram need to be counted? (see talk later)

# Participation to international optical networks



See talk by Jérémie



# Participation to international optical networks

## Single CAMS - BeNeLux



- Small FOV :  $22^\circ \times 30^\circ$
- Situation above in October 2013  
(projections at 90 km)

# Open discussion



Vertical vs inclined