Dear all,

During the last INQUA2011 congress in Bern (Switzerland) we presented the ***G@GPS*** initiative (***G***roundwater***@G***lobal ***P***alaeoclimate ***S***ignals). This group seeks to help the palaeogroundwater research community by:

1) Coordinating activities with the aim of investigating links between palaeoclimate archives and paleogroundwater observations.
2) Coordinating funding applications.
3) Organising workshops, meetings for all interested researchers to present/discuss their work.
4) Organising courses to help future and early career researchers to develop their skills.

In brief:

What is G@GPS? An inclusive group of scientists coordinating palaeogroundwater research. The aim is to interpret links between palaeoclimate archives and paleogroundwater observations at continental and intercontinental scales.

Why G@GPS? Understanding the responses of groundwater to past, present and future climates is vital to manage limited groundwater resources. The palaeoclimatic signals potentially obtained from groundwater are of low temporal resolution; however, they can offer an integrated signal from vast geographical areas. This information is key in understanding long term evolution of major aquifer systems.

How are we planning to work? A number of basins with available (published data) have been initially identified to start work, with other basins to be added depending on data availability.

NCPA North China Plains Aquifer, (China), GAB Great Artesian Basin, (Australia), NWSA North-Western Sahara Aquifer (Algeria, Tunisia, Libya.), The Guarani Aquifer (Brazil, Argentina, Paraguay, Uruguay), The Sydney Basin Aquifers (Australia), HPA High Plain Aquifer, (USA).

Data will be compared and data gaps identified. Collaborating with research institutions at national and regional level in order to address those gaps, including the joint preparation of proposals for funding will be part of the scope of ***G@GPS.***

Some challenges for G@GPS
Decoupling water-rock interaction, mixing of palaeogroundwater and diffusion of palaeoclimatic signals, separating anthropogenic inputs (ca <5000 a), and building chronological frameworks past the groundwater $^{14}C_{DIC}$ range.

G@GPS plans and activities for the near future
A newsletter will be distributed on a regular basis to keep you up to date with any activities as well as interesting news or papers arriving to our coordinators.
Once work teams are established we aim at publishing coordinated papers.
Organise seminars, workshops and training courses to encourage network building a knowledge transfer to young researchers.

Interested to participate in *G@GPS* please contact any of the coordinators bellow:
Coordinators (alphabetic order)

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