

ERC Advanced Grant 2008 Step 1 Evaluation Report

CONFIDENTIAL

Call reference	ERC-2008-AdG
Activity	ERC-AG
Funding scheme	ERC Advanced Grant
Panel name	PE10 - Earth system science
Proposal No.	228060
Acronym	CHEWtheCUDandRISE
Applicant Name	Demetris Koutsoyiannis
Title	Climate, Hydrology, Energy, Water: the Conversion of Uncertainty Domination and Risk Into Sustainable Evolution

PANEL MARKS

<p>1. Principal Investigator</p> <p>Quality of research output/track-record: How well qualified is the Principal Investigator (and any co-Investigator if applicable) to conduct the project (reviewers are expected to evaluate the quality of the prior work such as published results in top peer review journals as well as other elements of the Principal Investigator's CV). To what extent are the publications and achievements of the Principal Investigator groundbreaking and demonstrative of independent creative thinking and capacity to go significantly beyond the state of the art? To what extent does the quality and quantity of funding the Principal Investigator has attracted during the last ten years demonstrate his/her reputation as a performer of ground-breaking research?</p> <p>Intellectual capacity and creativity: To what extent does the Principal Investigator's record of research, collaborations, project conception, supervision of students and publications demonstrate that he/she is able to confront major research challenges in the field, and to initiate new productive lines of thinking?</p>	2.88 / 4
<p>2. Research project</p> <p>Ground-breaking nature of the research: Does the proposed research address important challenges at the frontiers of the field(s) addressed? Does it have suitably ambitious objectives, which go substantially beyond the current state of the art (e.g. including inter- and trans-disciplinary developments and novel or unconventional concepts and/or approaches)? How well conceived and organized is the proposed activity?</p> <p>Potential impact: (a) Does the research open new and important, scientific, technological or scholarly horizons? (b) Will the project significantly enhance the research environment and capabilities for frontier research in Europe (including the host institution)?</p> <p>Methodology: Is the outlined scientific approach (including the activities to be undertaken by the individual team members) feasible?</p> <p>High-gain/High-risk balance: a) does the proposed research involve highly novel and/or unconventional methodologies, whose high risk is justified by the possibility of a major breakthrough with an impact beyond a specific research domain/discipline?</p>	2.25 / 4
Total mark	5.13 / 8
Has the proposal passed the thresholds (2/4) for criteria 1 and 2?	Yes

PANEL COMMENTS

This evaluation report contains the final marks awarded to the proposal by the ERC review panel in its meeting in April 2008. The panel bases its appraisal on prior individual reviews conducted by ERC panel members. The comments of these individual reviews are reproduced below.

The proposal is built around a very interesting concept and approach proposed relating uncertainty and linkages between climate, hydrology, energy and water processes. The panel appreciated the holistic perspective and the novel approach to hydrology but it is not entirely clear how the work will be realized, in particular how the different expertise needed to integrate the science will contribute.

This proposal is of a high standard. The principal investigator has a good track-record and the proposal is of good scientific quality. However, given the level of competition and the budget available under the call for proposals, the panel did not rank the proposal sufficiently high to pass to the second step of the review.

The proposal will not be retained for the second stage of the review.

REVIEWER COMMENTS

1. Principal Investigator:

Senior scientist in hydrology. strong editorial activity; moderate international recognition; low level of citations

2. Research project:

Novel approach in climate change research based on probabilistic methodology; with application to water resources; but lack of focussed objectives

1. Principal Investigator:

The PI is a world leading scientist with very high writing skills

2. Research project:

very interesting methodological approach

1. Principal Investigator:

PI record is good although some publications seems not to be of high impact

2. Research project:

The proposal seems too broad encompassing several topics instead on focussing on specific scientific questions. The impression is that the work could not be achieved in all parts with the same excellence.

1. Principal Investigator:

PI has a rather unique background in the field of hydrology with bold and visionary ideas; combines a strong quantitative background with broad understanding of problem area.

**2. Research project:**

A very interesting concept and approach proposed for solving/addressing a very important issue, uncertainty and interrelation between climate, hydrology, energy and water; worthy goals but not entirely clear how they will be realized, in particular how the different researchers from the group will contribute. Not clear how the team work will lead to achieving the goals.