

# FLAMESEEK -

## FLAME Sensors for Efficient Engine Cycles (humid air turbines)

Catherine Goy

### Deliverables:

- t Two novel gas turbine combustion sensors
- t Model to predict combustion performance
- t Comparison between prediction and measurements
- t Predicted combustor performance at conditions for >50% efficiency



**Rolls-Royce**

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## The partners:

- t Rolls-Royce Power Engineering plc. (UK)
- t Alstom Power Sweden AB (Sweden)
- t Imperial College of Science, Technology & Medicine (UK)
- t Lund University (Sweden)
- t Foundation for Research & Technology Hellas (Greece)
- t Twente University (Netherlands)
  
- t



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## Programme Plan:

Workpackage descriptions	2001			2002			2003		
Workpackage 1: Imperial College Manufacture and preliminary evaluation of two optical sensors									
Workpackage 2: Lund University Evaluation of temporal and spatial response of two optical sensors									
Workpackage 3: Rolls-Royce Pressurised flame measurements in HP-CTF using two optical sensors									
Workpackage 4: Twente University Numerical model development									
Workpackage 5: Alstom Power Design guidelines for humid air combustion chambers									
Workpackage 6: Rolls-Royce Coordination									



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