



TEMI: Teaching Enquiry with Mysteries Incorporated

**An
EU-funded science education project**

Call for proposal

**Design and build of a TEMI mascot – a working
automaton**

The project: The aim of this teacher training project is to help transform science and mathematics teaching practice across Europe by giving teachers new skills to engage with their students, exciting new resources and the extended support needed to effectively introduce enquiry based learning into their classrooms. We will do this by working with teacher training institutions and teacher networks across Europe where we will implement innovative training programmes called 'enquiry labs'. These will be based around the core scientific concepts and emotionally engaging activity of solving mysteries, i.e. exploring the unknown. The enquiry labs will use scientists and communication professionals (e.g. actors, motivational speakers, etc.) to mentor teachers through the transition to use enquiry to teach science.

Funding body: TEMI is a science education project, funded by the European Commission under the Seventh Framework Programme (FP7), category Capacities, Science in Society, Coordination Action.

Call identifier: FP7-SCIENCE-IN-SOCIETY-2012-1

Topic SiS.2012.2.2.1-1: Supporting actions on Innovation in the classroom: teacher training on inquiry based teaching methods on a large scale in Europe.

Total value of the project: € 3.135.920

The consortium: The TEMI project gathers 13 partners from 11 countries. It is coordinated by Queen Mary, University of London. Coordinator: Prof. Peter McOwan.

Partners	Country
Queen Mary, University of London	UK
Università degli Studi di Milano	Italy
Bremen University	Germany
University of Limerick	Ireland
Sheffield Hallam University	UK
Hogskolen I Vestfold	Norway
University of Vienna	Austria
Weizmann Institute	Israel
Leiden University	Netherlands
Charles University Prague	Czech Republic
Sterrenlab	Netherlands
TRACES	France
Cnotinfor	Portugal

The Aim of the TEMI Mascot Automaton:

The aim of the TEMI mascot automaton is to stimulate interest in and raise the profile of the TEMI (Teaching Enquiry with Mysteries Incorporated) project at events, conferences and in classrooms across Europe. In order to fulfil this aim we are looking for an automaton maker to create a working automaton that can create and explain a scientific mystery for pupils of secondary school age.

An appropriate and experienced crafts person will be sourced and hired through Queen Mary University of London, the coordinator of this Science in Society project.

The SPEC:

Description: One or more working automatons, possibly an ancient Greek Mystery such as Heron's Horse that would be 1 to 1.5metres in height and relatively easy to build and dismantle with instructions (possibly flat pack) for shipping across Europe. It would need to present a mystery which could then be illustrated and explained as a scientific or mathematical principle, for example by removing the front panel to show the workings beneath which might be hydraulics.

Budget: Up to £9.5k including design, materials and build and collection/delivery.

Time frame: Contract to be awarded in January 2014 and the automaton(s) to be completed and operational by 30th March 2014

Materials: To be built out of reasonably lightweight materials (for example Perspex) to allow for ease of transporting and unpacking.

Audience: To be safe to use in classrooms and to appeal to all genders

Durability: The automaton(s) will be in use at events around Europe until mid-2016 at the latest so the proposed mascot must be designed with durability in mind.

Ideas for inspiration: <http://www.kotsanas.com/gb/categories.php>

To submit your proposal:

QMUL will consider proposals from craftspeople based in the UK.

Please send an email to j.winfield@qmul.ac.uk to register your interest in submitting a proposal and ask any further questions if you have them.

Please send your proposal (PDF format) in English and provide a two/three page plan of the automaton you propose to build, how it will work and the scientific “mystery” its operation illustrates. Please include an estimate of the number of days you plan to spend on the project and your expected costs of materials and labour to a maximum of £9.5k. If it is possible for you to build more than one automaton within the budget then this will be taken into account. The deadline for proposals is Monday 13th January 2014.

Selection criteria

1. A creative solution to the problem
2. Value for money
3. Ease of manufacture, transport and use.
4. Evidence of previous work.
5. Able to complete the build before the end of March 2014.

The maximum price of the contract is limited to GBP 9,500 (exclusive of VAT).

Applications should be sent by email to:

Prof. Peter McOwan and Jonathan Winfield
Queen Mary, University of London
Office of the Principal
Queens' Building
Mile End Road
London E1 4NS
Emails: pmco@eecs.qmul.ac.uk; j.winfield@qmul.ac.uk

Please clearly state “TEMI Automaton” in the subject line of your emails.

Short listed candidates may be invited to interview in person or by Skype. If you have not heard from us by two weeks after the closing date your application will not have been short listed.

Deadline for application: Monday 13th January 2014, 09:00 GMT