

PROJECT FINAL REPORT

Societal implications

Grant Agreement number: 212008

Project acronym: COMPAS

Project title: Computing with Mesoscopic Photonic and Atomic States

Funding Scheme: CP-FP-INFISO

Period covered: from 1st April 2008 to 31st March 2011

Name of the scientific representative of the project's co-ordinator, Title and Organisation:

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Report on societal implications

Replies to the following questions will assist the European Commission to obtain statistics and indicators on societal and socio-economic issues addressed by projects. The questions are arranged in a number of key themes. As well as producing certain statistics, the replies will also help identify those projects that have shown a real engagement with wider societal issues, and thereby identify interesting approaches to these issues and best practices. The replies for individual projects will not be made public.

A General Information *(completed automatically when Grant Agreement number is entered.)*

Grant Agreement Number:

Title of Project:

Name and Title of Coordinator:

B Ethics

1. Did you have ethicists or others with specific experience of ethical issues involved in the project?	<input type="radio"/> Yes
	<input checked="" type="radio"/> No

2. Please indicate whether your project involved any of the following issues (tick box) : **YES**

INFORMED CONSENT

• Did the project involve children?	NO
• Did the project involve patients or persons not able to give consent?	NO
• Did the project involve adult healthy volunteers?	NO
• Did the project involve Human Genetic Material?	NO
• Did the project involve Human biological samples?	NO
• Did the project involve Human data collection?	NO

RESEARCH ON HUMAN EMBRYO/FOETUS

• Did the project involve Human Embryos?	NO
• Did the project involve Human Foetal Tissue / Cells?	NO
• Did the project involve Human Embryonic Stem Cells?	NO

PRIVACY

• Did the project involve processing of genetic information or personal data (eg. health, sexual lifestyle, ethnicity, political opinion, religious or philosophical conviction)	NO
• Did the project involve tracking the location or observation of people?	NO

RESEARCH ON ANIMALS

• Did the project involve research on animals?	NO
• Were those animals transgenic small laboratory animals?	NO
• Were those animals transgenic farm animals?	NO
• Were those animals cloning farm animals?	NO
• Were those animals non-human primates?	NO

RESEARCH INVOLVING DEVELOPING COUNTRIES

• Use of local resources (genetic, animal, plant etc)	NO
• Benefit to local community (capacity building ie access to healthcare, education etc)	NO

DUAL USE

• Research having potential military / terrorist application	NO
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C Workforce Statistics		
3 Workforce statistics for the project: Please indicate in the table below the number of people who worked on the project (on a headcount basis).		
Type of Position	Number of Women	Number of Men
Scientific Coordinator	2	5
Work package leader	0	4
Experienced researcher (i.e. PhD holders)	6	22
PhD Students	4	31
Other	2	3
4 How many additional researchers (in companies and universities) were recruited specifically for this project?		9
Of which, indicate the number of men:		8
Of which, indicate the number of women:		1

D Gender Aspects										
5 Did you carry out specific Gender Equality Actions under the project ?	<input type="radio"/> <input checked="" type="radio"/>	Yes No								
6 Which of the following actions did you carry out and how effective were they?										
<input type="checkbox"/> Design and implement an equal opportunity policy <input type="checkbox"/> Set targets to achieve a gender balance in the workforce <input type="checkbox"/> Organise conferences and workshops on gender <input type="checkbox"/> Actions to improve work-life balance <input type="radio"/> Other: <input style="width: 150px;" type="text"/>	<table style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;">Not at all effective</td> <td style="text-align: center;">Very effective</td> </tr> <tr> <td style="text-align: center;">○ ○ ○ ○ ○</td> <td style="text-align: center;">○ ○ ○ ○ ○</td> </tr> <tr> <td style="text-align: center;">○ ○ ○ ○ ○</td> <td style="text-align: center;">○ ○ ○ ○ ○</td> </tr> <tr> <td style="text-align: center;">○ ○ ○ ○ ○</td> <td style="text-align: center;">○ ○ ○ ○ ○</td> </tr> </table>	Not at all effective	Very effective	○ ○ ○ ○ ○	○ ○ ○ ○ ○	○ ○ ○ ○ ○	○ ○ ○ ○ ○	○ ○ ○ ○ ○	○ ○ ○ ○ ○	
Not at all effective	Very effective									
○ ○ ○ ○ ○	○ ○ ○ ○ ○									
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○ ○ ○ ○ ○	○ ○ ○ ○ ○									
7 Was there a gender dimension associated with the research content – i.e. wherever people were the focus of the research as, for example, consumers, users, patients or in trials, was the issue of gender considered and addressed?										
<input type="radio"/> Yes- please specify <input style="width: 150px;" type="text"/> <input checked="" type="radio"/> No										
E Synergies with Science Education										
8 Did your project involve working with students and/or school pupils (e.g. open days, participation in science festivals and events, prizes/competitions or joint projects)?										
<input type="radio"/> Yes- please specify <input style="width: 150px;" type="text"/> <input checked="" type="radio"/> No										
9 Did the project generate any science education material (e.g. kits, websites, explanatory booklets, DVDs)?										
<input type="radio"/> Yes- please specify <input style="width: 150px;" type="text"/> <input checked="" type="radio"/> No										
F Interdisciplinarity										
10 Which disciplines (see list below) are involved in your project?										
<input checked="" type="radio"/> Main discipline ¹ : 1.2 Physical sciences <input checked="" type="radio"/> Associated discipline ¹ : 1.1 Mathematics and computer sciences <table style="margin-left: 20px; border-collapse: collapse;"> <tr> <td style="border-right: 1px solid black; padding-right: 5px;"><input type="radio"/></td> <td style="padding-left: 5px;">Associated discipline¹:</td> </tr> </table>			<input type="radio"/>	Associated discipline ¹ :						
<input type="radio"/>	Associated discipline ¹ :									
G Engaging with Civil society and policy makers										
11a Did your project engage with societal actors beyond the research community? (if 'No', go to Question 14)	<input type="radio"/> <input checked="" type="radio"/>	Yes No								
11b If yes, did you engage with citizens (citizens' panels / juries) or organised civil society (NGOs, patients' groups etc.)?										
<input type="radio"/> No <input type="radio"/> Yes- in determining what research should be performed <input type="radio"/> Yes - in implementing the research <input type="radio"/> Yes, in communicating /disseminating / using the results of the project										

¹ Insert number from list below (Frascati Manual)

11c In doing so, did your project involve actors whose role is mainly to organise the dialogue with citizens and organised civil society (e.g. professional mediator; communication company, science museums)?	<input type="radio"/> <input type="radio"/>	Yes No	
12 Did you engage with government / public bodies or policy makers (including international organisations)			
<input checked="" type="radio"/> No <input type="radio"/> Yes- in framing the research agenda <input type="radio"/> Yes - in implementing the research agenda <input type="radio"/> Yes, in communicating /disseminating / using the results of the project			
13a Will the project generate outputs (expertise or scientific advice) which could be used by policy makers? <input type="radio"/> Yes – as a primary objective (please indicate areas below- multiple answers possible) <input checked="" type="radio"/> Yes – as a secondary objective (please indicate areas below - multiple answer possible) <input type="radio"/> No			
13b If Yes, in which fields?			
Agriculture Audiovisual and Media Budget Competition Consumers Culture Customs Development Economic and Monetary Affairs Education, Training, Youth Employment and Social Affairs		Energy Enlargement Enterprise Environment External Relations External Trade Fisheries and Maritime Affairs Food Safety Foreign and Security Policy Fraud Humanitarian aid	Human rights Information Society Institutional affairs Internal Market Justice, freedom and security Public Health Regional Policy <u>Research and Innovation</u> Space Taxation Transport
13c If Yes, at which level? <input type="radio"/> Local / regional levels <input type="radio"/> National level <input checked="" type="radio"/> European level <input type="radio"/> International level			

H Use and dissemination			
14	How many Articles were published/accepted for publication in peer-reviewed journals?	120	
	To how many of these is open access² provided?	101	
	How many of these are published in open access journals?	15	
	How many of these are published in open repositories?	95	
	To how many of these is open access not provided?	19	
	Please check all applicable reasons for not providing open access:		
	<input type="checkbox"/> publisher's licensing agreement would not permit publishing in a repository <input type="checkbox"/> no suitable repository available <input checked="" type="checkbox"/> no suitable open access journal available <input type="checkbox"/> no funds available to publish in an open access journal <input checked="" type="checkbox"/> lack of time and resources <input type="checkbox"/> lack of information on open access <input type="checkbox"/> other:		
15	How many new patent applications ('priority filings') have been made? <i>("Technologically unique": multiple applications for the same invention in different jurisdictions should be counted as just one application of grant).</i>	0	
16	Indicate how many of the following Intellectual Property Rights were applied for (give number in each box).	Trademark	0
		Registered design	0
		Other	0
17	How many spin-off companies were created / are planned as a direct result of the project?	0	
	<i>Indicate the approximate number of additional jobs in these companies:</i>		
18	Please indicate whether your project has a potential impact on employment, in comparison with the situation before your project:		
	<input type="checkbox"/> Increase in employment, or <input type="checkbox"/> Safeguard employment, or <input type="checkbox"/> Decrease in employment, <input type="checkbox"/> Difficult to estimate / not possible to quantify	<input type="checkbox"/> In small & medium-sized enterprises <input type="checkbox"/> In large companies <input checked="" type="checkbox"/> None of the above / not relevant to the project <input type="checkbox"/>	
19	For your project partnership please estimate the employment effect resulting directly from your participation in Full Time Equivalent (FTE = one person working fulltime for a year) jobs:	<i>Indicate figure:</i>	
	<i>Difficult to estimate / not possible to quantify</i>	<input checked="" type="checkbox"/>	

² Open Access is defined as free of charge access for anyone via the internet.

I Media and Communication to the general public			
20	<p>As part of the project, were any of the beneficiaries professionals in communication or media relations?</p> <p><input type="radio"/> Yes <input checked="" type="radio"/> No</p>		
21	<p>As part of the project, have any beneficiaries received professional media / communication training / advice to improve communication with the general public?</p> <p><input type="radio"/> Yes <input checked="" type="radio"/> No</p>		
22	<p>Which of the following have been used to communicate information about your project to the general public, or have resulted from your project?</p> <table border="0" style="width: 100%;"> <tr> <td style="vertical-align: top; width: 50%;"> <input type="checkbox"/> Press Release <input type="checkbox"/> Media briefing <input type="checkbox"/> TV coverage / report <input checked="" type="checkbox"/> Radio coverage / report <input type="checkbox"/> Brochures /posters / flyers <input type="checkbox"/> DVD /Film /Multimedia </td> <td style="vertical-align: top; width: 50%;"> <input checked="" type="checkbox"/> Coverage in specialist press <input checked="" type="checkbox"/> Coverage in general (non-specialist) press <input checked="" type="checkbox"/> Coverage in national press <input type="checkbox"/> Coverage in international press <input checked="" type="checkbox"/> Internet <input checked="" type="checkbox"/> Event targeting general public (festival, conference, exhibition, science café) </td> </tr> </table>	<input type="checkbox"/> Press Release <input type="checkbox"/> Media briefing <input type="checkbox"/> TV coverage / report <input checked="" type="checkbox"/> Radio coverage / report <input type="checkbox"/> Brochures /posters / flyers <input type="checkbox"/> DVD /Film /Multimedia	<input checked="" type="checkbox"/> Coverage in specialist press <input checked="" type="checkbox"/> Coverage in general (non-specialist) press <input checked="" type="checkbox"/> Coverage in national press <input type="checkbox"/> Coverage in international press <input checked="" type="checkbox"/> Internet <input checked="" type="checkbox"/> Event targeting general public (festival, conference, exhibition, science café)
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23	<p>In which languages are the information products for the general public produced?</p> <table border="0" style="width: 100%;"> <tr> <td style="vertical-align: top; width: 50%;"> <input checked="" type="checkbox"/> Language of the coordinator <input checked="" type="checkbox"/> Other language(s) </td> <td style="vertical-align: top; width: 50%;"> <input checked="" type="checkbox"/> English </td> </tr> </table>	<input checked="" type="checkbox"/> Language of the coordinator <input checked="" type="checkbox"/> Other language(s)	<input checked="" type="checkbox"/> English
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Question F-10: Classification of Scientific Disciplines according to the Frascati Manual 2002 (Proposed Standard Practice for Surveys on Research and Experimental Development, OECD 2002):

FIELDS OF SCIENCE AND TECHNOLOGY

1. NATURAL SCIENCES

- 1.1 Mathematics and computer sciences [mathematics and other allied fields: computer sciences and other allied subjects (software development only; hardware development should be classified in the engineering fields)]
- 1.2 Physical sciences (astronomy and space sciences, physics and other allied subjects)
- 1.3 Chemical sciences (chemistry, other allied subjects)
- 1.4 Earth and related environmental sciences (geology, geophysics, mineralogy, physical geography and other geosciences, meteorology and other atmospheric sciences including climatic research, oceanography, vulcanology, palaeoecology, other allied sciences)
- 1.5 Biological sciences (biology, botany, bacteriology, microbiology, zoology, entomology, genetics, biochemistry, biophysics, other allied sciences, excluding clinical and veterinary sciences)

2. ENGINEERING AND TECHNOLOGY

- 2.1 Civil engineering (architecture engineering, building science and engineering, construction engineering, municipal and structural engineering and other allied subjects)
- 2.2 Electrical engineering, electronics [electrical engineering, electronics, communication engineering and systems, computer engineering (hardware only) and other allied subjects]
- 2.3. Other engineering sciences (such as chemical, aeronautical and space, mechanical, metallurgical and materials engineering, and their specialised subdivisions; forest products; applied sciences such as geodesy, industrial chemistry, etc.; the science and technology of food production; specialised technologies of interdisciplinary fields, e.g. systems analysis, metallurgy, mining, textile technology and other applied subjects)

3. MEDICAL SCIENCES

- 3.1 Basic medicine (anatomy, cytology, physiology, genetics, pharmacy, pharmacology, toxicology, immunology and immuno-haematology, clinical chemistry, clinical microbiology, pathology)
 - 3.2 Clinical medicine (anaesthesiology, paediatrics, obstetrics and gynaecology, internal medicine, surgery, dentistry, neurology, psychiatry, radiology, therapeutics, otorhinolaryngology, ophthalmology)
 - 3.3 Health sciences (public health services, social medicine, hygiene, nursing, epidemiology)
4. AGRICULTURAL SCIENCES
- 4.1 Agriculture, forestry, fisheries and allied sciences (agronomy, animal husbandry, fisheries, forestry, horticulture, other allied subjects)
 - 4.2 Veterinary medicine
5. SOCIAL SCIENCES
- 5.1 Psychology
 - 5.2 Economics
 - 5.3 Educational sciences (education and training and other allied subjects)
 - 5.4 Other social sciences [anthropology (social and cultural) and ethnology, demography, geography (human, economic and social), town and country planning, management, law, linguistics, political sciences, sociology, organisation and methods, miscellaneous social sciences and interdisciplinary, methodological and historical SIT activities relating to subjects in this group. Physical anthropology, physical geography and psychophysiology should normally be classified with the natural sciences].
6. HUMANITIES
- 6.1 History (history, prehistory and history, together with auxiliary historical disciplines such as archaeology, numismatics, palaeography, genealogy, etc.)
 - 6.2 Languages and literature (ancient and modern)
 - 6.3 Other humanities [philosophy (including the history of science and technology) arts, history of art, art criticism, painting, sculpture, musicology, dramatic art excluding artistic "research" of any kind, religion, theology, other fields and subjects pertaining to the humanities, methodological, historical and other SIT activities relating to the subjects in this group] .