



ERC Advanced Grant 2016

**Annex 1 to the Grant Agreement
(Description of the Action)
Part B**

Action Acronym: BeyondtheHorizon

Action number: 987654

Action Title: Beyond the current science Horizon

Principal Investigator: Dr Karl Schulz

Host Institution: University of trial and error

Additional Beneficiaries (if applicable): Not Applicable

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1. Curriculum vitae – Funding ID

PERSONAL INFORMATION

Family name, First name: Schulz Karl

Nationality: German

Date of birth: 01.04.1966

- **EDUCATION**

- **CURRENT POSITION(S)**

Since October 2009: Professor in Economics and Head of Department at INSTITUTE OF ECONOMY (25 Birmingham Square, Oxford UK)

- **PREVIOUS POSITIONS**

- **FELLOWSHIPS AND AWARDS**

- **SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS**

- **TEACHING ACTIVITIES**

- **ORGANISATION OF SCIENTIFIC MEETINGS**

- **INSTITUTIONAL RESPONSIBILITIES**

- **COMMISSIONS OF TRUST**

- **MEMBERSHIPS OF SCIENTIFIC SOCIETIES**

- **MAJOR COLLABORATIONS**

Appendix: All ongoing and submitted grants and funding of the PI (Funding ID)

On-going Grants

There is no financial overlap between the listed projects and the project brightfuture.

<i>Project Title</i>	<i>Funding source</i>	<i>Amount (Euros)</i>	<i>Period</i>	<i>Role of the PI</i>	<i>Relation to current ERC proposal</i>
Space Opera	ERC-StG-2010	€1.490.000	01 September 2011 – 31 March 2017	PI	Closely linked There is no request for an extension of this project
Master of chaos	New Age Foundation	€300.000	01 December 2013- 30 November 2016	Co-applicant	Linked as potential data generator.

2. Early achievements track-record

Publications

Chapters in books

Invited lectures

Organizing of international conferences

Research Expeditions

3. State-of-the-art and objectives

Introduction

General Objective:

Specific Objectives:

Ground-breaking, innovative character of the project and impact

4. Methodology

Task 1

Task 2

Task 3

Task 4

Dissemination of the knowledge

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Feasibility and risk assessment:

High risk/High gain

Reference List

5. Resources (including project costs)

Resources and Estimated budget for the action

The action will start on 01/04/2017

Personnel costs

Management of the project and the role of team members

Table 1. Main research team members, tasks, workload, funding

Team members	Tasks	Y1	Y2	Y 3	Y 4	Y 5	ERC *
		%	%	%	%	%	
K. Schulz,	Overall scientific supervision and administrative management	60	60	60	60	60	x
Adm 1, UOTAE	Administration of the project	20	20	20	20	20	x
J. Brown, Oxford University	Task 2	10	10	10	20	20	x
Post-doc 1, UOTAE	Task 1	100	100	100	100	100	x
Post-doc 2, UOTAE	Task 2	50	50	50	50	50	x
Post-doc 3, UOTAE	Task 3	75	75	75	75	75	
3 PhD students, UOTAE	Collaboration in tasks 1,2 and 3	80	80	80	80		x

Y= Year; * ERC funding required

PI

Dr Karl Schulz, PI of the BeyondtheHorizon action, is full Professor at the Institute of Economy (Oxford), Department of Economics.

In agreement with the Institute of Economy (Eco), inserted in this project as third party providing in-kind contributions, the BeyondtheHorizon action will be developed and implemented at the University of trial and error, the Host Institution (HI).

The PI will devote 80% of his time to the BeyondtheHorizon action over the 5-year period of the grant and will work at the HI's premises.

The PI will be responsible for the coordination and administration of the whole project.

The HI will reimburse the third party for the actual salary costs of the PI corresponding to the actual working time he will dedicate to the action; this will be the only cost of the Institute of Economy third party that will be charged to the project.

Total estimated costs: €360.000.

Post-docs and PhD Students

3 Post-docs and 3 PhD students will be recruited by the HI and will be involved in the implementation of tasks 1, 2 and 3 of the action:

- Post-doc 1, full-time commitment to the project. He/she will be involved in Task 1
- Post-doc 2, 50% working time commitment, Task 2

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- Post-doc 3, 75% working time commitment, Task 3. His/her salary will be covered by the HI, no contribution will be requested from the ERC.

The PhD students will collaborate in the implementation of tasks 1, 2 and 3 with 80% working-time commitment each during the first 4 years of the project.

Total estimated costs for Post-docs: €360.000

Total estimated costs for PhD Students: €230.400.

Other – Administrative assistant

An administrative assistant will support the PI for the general management of the work and his team. Under the HI's accounts system costs of support staff are identifiable and attributable to specific projects: it is therefore normal institutional practice to allocate such costs to research projects as they are incurred.

Total estimated costs: €30.000

Travel - total estimated costs €41.000

All the researchers involved in the project will be active in attending international workshops and conferences to deliver talks and to visit research partners for international cooperation on the topics of the project.

External collaborators collaboration is very important to keep alive the international network mentioned in the proposal with fruitful and periodic exchanges and updates, being the project quite wide. Travel and subsistence costs of invited external experts are envisaged and are accounted under travel direct costs.

All the travel costs will be linked to the project, will be incurred during the action duration in accordance with the HI's usual practices on travel.

Equipment - total estimated costs €120.000

Equipment: 12 cluster nodes and equipment devices.

Equipment is budgeted according the usual accounting practice of the host institution and depreciated over 36 months and used exclusively for the project.

Other goods and services – total estimated costs €279.745.

Consumables

Consumables include components for setting up and maintaining the experiments, for example substrates/targets for sample preparation and optical components like broadband THz wire-grid polarizers (0.3 to 30 THz) and nonlinear optical crystals for THz generation.

Some components might be purchased from other departments. Internal invoices will not include indirect costs elements or profit margin or mark-up.

All the listed consumables will be used for the present ERC project only.

The estimated cost of consumables is €249.745.

Dissemination

In order to disseminate the action results a web-site will be created and maintained for the project. The HI has a framework contract with an external IT company which this contract will be assigned to. The estimated cost of the contract is €20.000.

One workshop on economic theory and environmental policy will be organised for the action and will aim at ensuring that the methodological approach of the project is at the frontier of economic theory. Top theorists will be invited to the conference. The estimated cost of the workshop is €5.000.

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Certificate on the Financial Statements

The estimated costs for the Certificate on the Financial Statements is €5.000

Subcontracting - total estimated costs €111.000

Task 4 was originally to be done internally. To ameliorate the time frame for completing it task 4 will be outsourced. The service provider will be selected in line with the HI's internal accounting procedures and rules and in accordance with the accounting standards applicable in the country where the HI is established. The subcontract will be awarded in accordance with the principle of best value for money.

The estimated cost for subcontracting is €111.000.

In kind contributions not used on premises

Senior Staff

Dr James Brown from the University of Oxford will collaborate in the implementation of Task 2. He will dedicate to the action 14% of his working time; he will work in his lab at the University of Oxford.

The HI will reimburse the University of Oxford for the actual salary costs of Dr Brown corresponding to the working time he will dedicate to the action. No other costs incurred by the University of Oxford are budgeted nor will be charged to the BeyondtheHorizon action.

Total estimated costs: €84.000