



科技部 書函

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第一層決行

受文者：國立暨南國際大學

發文日期：中華民國106年1月23日

發文字號：科部科字第1060006312號

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密等及解密條件或保密期限：

附件：如文 (106D2001734.PDF, 106D2001735.PDF, 106D2001736.DOCX) (106D2001734.PDF、106D2001735.PDF、106D2001736.DOCX)

主旨：檢送本部與德國聯邦教育及研究部(MOST-BMBF)共同徵求
臺德電池領域共同合作研究計畫之公告說明資料，請查照
轉知。

說明：

- 一、依本部與德國聯邦教育及研究部(BMBF)所簽訂電池研究共同合作意向書，共同徵求電池領域整合型臺德共同合作研究計畫。
- 二、本案公告徵求之雙邊共同合作研究計畫，須由雙方計畫總主持人及研究團隊共同研議完成計畫書，並分別向本部及德方協議單位(BMBF)提出申請案。任一方未收到申請書，則合作案無法成立。
- 三、擬申請本項合作計畫之計畫主持人，應依公告說明第六點「申請方式」完成線上申請，經所屬機構彙整後，於本(106)年3月31日前函送本部提出申請。
- 四、檢送本案公開徵求計畫申請須知、英文申請說明及英文申請表件如附件，相關資訊亦已公告於本部網站。

國際及兩岸
事務處



正本：專題研究計畫受補助單位（共301單位）

副本：駐德國代表處科技組 2017-01-23
12:14:10

科技部

擬辦：

- 一. 文登載校首頁及上傳文件公告系統.
- 二. 有意申請者, 請於106年3月>4日前
完成線上申請並聯繫同學處, 俾
利在期限內送文申請.
- 三. 文錄案系統辦.



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Federal Ministry
of Education
and Research

Federal Ministry of Education
and Research (BMBF), Germany

科技部

Ministry of Science and Technology

Ministry of Science and
Technology (MoST), Taiwan

公開徵求 2017-2019 年臺灣-德國(MOST-BMBF) 電池領域共同合作研究計畫申請須知

2017/01/20

為加強國內學者與德國學者在電池領域之學術合作，並落實本部與德國教育及研究部(Federal Ministry of Education and Research, BMBF)於2016年所簽署之電池研究共同合作意向書，雙方將共同徵求臺灣—德國在電池領域之共同合作研究計畫，為三年期之整合型合作研究計畫。本計畫應配合綠能科技前瞻研究計畫共同推動活化「沙崙綠能科學城」，以鏈結在地、產業創新、鏈結國際為目標，與德國研究團隊共同研發高效能及高安全性之新型鋰電池，並應有國內研究型法人共同參與，以加速創新科技落實於產業界。

本項臺德雙邊合作計畫須由臺灣及德國雙方計畫主持人共同研議完成並提出英文合作計畫書，且分別提送本部及德國教育及研究部。任一方未收到申請書，則合作案無法成立。其中我方主持人應依本部專題研究計畫申請規定向本部提出申請。共同徵求計畫之重點說明如下：

一、申請資格：

臺方申請人須符合本部專題研究計畫申請人資格。

德方申請人依德國教育及研究部(BMBF)規定辦理。

二、合作領域：

- 高能量密度及高功效之新型鋰電池電極 (new electrodes for high-energy density, high performance Li-ion batteries)
- 高能量密度及高功效之新型鋰電池電解液 (electrolytes for high-energy density, high performance Li-ion batteries)
- 高穩定性之電極和電解質材料 (electrode and electrolytes material with enhanced stability)
- 高安全性的鋰電池 (high-safety Li-ion batteries)
- 新穎電化學與電池結構—後鋰離子電化學能儲存技術 (new electrochemistry and battery architecture for post Li-ion electrochemical energy storage technologies)

三、計畫類型：

- 雙邊協議專案型國際合作研究計畫(Joint Call)，雙方組成合作研究團隊，共同合作進行本項研究計畫。

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- 國內申請人應組成整合型合作研究團隊提出申請，研究團隊必須跨校整合，並鏈結國內研究型法人（如國家實驗研究院等）參與計畫，有相關產業界參與者，優先考量補助。
- 本計畫各階段研究成果及新技術，應利用沙崙綠能科學城之技術整合產業創新實驗場域，做為落實於產業應用之測試平台。
- 本計畫全程將由「臺德電池研究規劃推動辦公室」協助計畫管考、鏈結在地及鏈結國際等相關事務。

四、補助經費項目及分擔方式：

1. 以補助三年期計畫為原則，臺方經費額度以每年新臺幣 1,000 萬元為原則。
2. 臺德雙方各自負擔合作計畫所需之研究經費，包括業務費（含研究人力費及物品耗材費）、研究設備費、國外差旅費及管理費等。
3. 與研究計畫相關之小型研討會及互訪，得於計畫內提出。

五、計畫作業時程：

1. 申請截止日期：即日起至 2017 年 3 月 31 日止，申請機構須於截止日期前由系統彙整送出，並依申請方式第 4 點函送本部。

※德方申請資訊詳附件英文說明，申請計畫為 Projektskizze。

2. 公告核定日期：2017 年 7-8 月
3. 計畫執行期間：自 2017 年 10 月 1 日至 2020 年 9 月 30 日

六、申請方式：

1. 每項申請案須由臺灣及德國各一組計畫團隊共同研議計畫內容後，分別向本部及德國教育及研究部（委由尤利希研究院 Forschungszentrum Jülich GmbH 辦理）提出申請。
2. 臺方計畫主持人向科技部提出線上申請時，應另備臺德(MOST-BMBF)共同合作研究英文計畫書、德方主持人履歷及近五年著作列表、德方參與人員履歷資料等，彙整為單一 PDF 檔案(表 IM03)，並依指示上傳至本部專題計畫線上申請系統。
3. 請依循本部專題研究計畫之申請程序，於線上系統填列計畫申請書。部份重點包括：
 - i. 至本部網站(<https://www.most.gov.tw/ch/academic>)首頁「學術研發服務網登入」處，身份選擇「研究人員(含學生)」，輸入申請人之帳號(ID)及密碼 (Password)後進入。
 - ii. 在「學術研發服務網」之學術獎補助申辦及查詢內之【專題計畫】工作頁下第一項【專題研究計畫】點入後，選擇【雙邊協議專案型國際合作計畫(Joint Call)】進入個人基本資料畫面，若無修改，確定後即進入本系統之「主畫面」，從主畫面視窗上左上方點選新增，即可新增一筆。

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- iii. 「計畫歸屬」請依計畫研究主題及所屬學門勾選對應之學術司（請勿直接選「科教國合司」）。
 - iv. 英文計畫名稱應與德方所提計畫名稱相同。
 - v. CM01 申請表內【本計畫是否為國際合作研究】欄位應勾選【是】；並須於表格設定處增加勾選【IM03】。
 - vi. 除一般專題計畫申請所需之各項 CM 表及相關學術司規定文件，亦應填具「國際合作研究計畫表」【IM01】與【IM02】等相關附件。
 - vii. IM01 表之「合作國家」請選「與單一國家合作」，「國別」請選填【334 德國】。「外國合作計畫經費來源」為本部雙/多邊協議機構，並選填【德國教育及研究部(BMBF)】。
 - viii. 表 IM03 屬檔案附錄之上傳功能鍵，請將英文計畫書、德方計畫主持人英文履歷及著作目錄、德方參與人員履歷等資料合併為單一 PDF 檔案後上傳至系統。未上傳者視為申請資料不全。
4. 計畫申請案須經主持人任職機構於系統中彙整後送出，依本部「專題計畫線上申請彙整」作業系統製作及列印申請名冊（由系統自動產生，並依計畫歸屬司別列印）一式二份，於 2017 年 3 月 31 日前函送本部。

七、注意事項：

- 1. 本項共同研究計畫須經本部與德國教育及研究部雙方獨立審查通過，並經共同討論選定後始成立並予以補助。
- 2. 如具以下情況之申請案恕不受理：
 - (1) 雙方計畫主持人中有任一方未提出計畫申請書；
 - (2) 申請日期超過公告截止日期；
 - (3) 申請資料不全；
 - (4) 未依本部專題作業規定提出。
- 3. 本案通過之計畫可不受本部一般專題計畫補助件數之限制，惟計畫主持人同年度執行此類「雙邊協議專案型國際合作計畫(Joint Call)」仍以 2 件為限，倘計畫主持人於 2017 年已執行 2 件此類計畫(指計畫執行期限內與本次徵求案預定執行期間重疊達 3 個月以上)者，不得再提出本項計畫申請；若計畫於受理審查過程中，主持人另獲此類計畫達 2 件時，本部將不再核予此第 3 件。
- 4. 計畫核定後之經費撥付、報銷與報告繳交作業，均依本部補助專題研究計畫作業要點及本部補助雙邊科技合作補助原則等規定辦理。
- 5. 雙方計畫主持人應於每年計畫執行期限結束前(後)提供期中(期末)報告，作為下一年度計畫經費補助之參考，並據以評估每項計畫之合作成效。
- 6. 雙方計畫主持人於規劃合作時，應先議定未來雙方智慧財產權與成果之歸屬、管理及運用方式，必要時可共同簽訂相關計畫合約書。

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八、承辦人聯繫資料：

臺方：

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德方：

德國教育及研究部 (BMBF)

Dr. Peter SCHROTH

Federal Ministry of Education and Research, Germany (BMBF)

德國尤利希研究院 (FZ Jülich)

Dr. Jenna Moorkamp

Project Management Agency Jülich

New Materials and Chemistry, Materials Technologies for Energy and Mobility

Forschungszentrum Jülich GmbH

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Federal Ministry
of Education
and Research

**Federal Ministry of Education
and Research (BMBF), Germany**

科技部

Ministry of Science and Technology

**Ministry of Science and
Technology (MoST), Taiwan**

ANNOUNCEMENT on the GERMAN – TAIWANESE¹

CALL FOR JOINT PROJECT PROPOSALS (2017) IN THE FIELD OF BATTERY RESEARCH, 2017 – 2019

The deadline for the submission of proposals² is **March 31, 2017**.

1. Objective of the funding measure

The German Federal Ministry of Education and Research (henceforth BMBF) and the “Taiwanese Ministry of Science and Technology” (henceforth MoST) aim to deepen their cooperation in the field of battery research, based on a Joint Declaration of Intent between the Taipei Representative Office in the Federal Republic of Germany and the German Institute in Taipei concerning scientific and technological cooperation. Both sides emphasize the common interest in promoting scientific research and technological development as well as scientific and technological cooperation between the scientific communities of Taiwan and Germany. Within the framework of the Joint Declaration, it is intended to fund cooperation projects between German and Taiwanese scientists in the field of battery research.

This funding scheme offers higher education institutions and non-university research institutions the opportunity to engage in joint research projects with partners from Taiwan and Germany and to take advantage of the existing cooperation potential. Funding is intended to vitalize Taiwanese-German partnerships in innovative areas of research which will help to intensify relations between the partners.

A particular aim of the joint projects is the enhancement of cooperation between Taiwanese and German partners in science. It is key to the long-term effectiveness of the projects that they take into account aspects of knowledge and technology transfer in connection with the utilization of achieved research outcome. Particular attention will be paid to the involvement of young researchers on both sides.

2. Priority research areas

The funding measure is focused on collaborative projects of applied research, development and innovation in battery research which are important for Germany and Taiwan:

¹ Mentioning of „Taiwan“ and respectively „Taiwanese“ is used in this call specifically in geographical sense only and has no impact on or relevance for the German Federal Government's policy of recognition of China.

² The German version of the proposal refers to *Projektskizze*. The Chinese version refers to 雙邊協議下國際合作研究計畫. This English-language call is for information purposes only; it is provided for prospective German and Taiwanese applicants for funding under this measure. This version is not legally binding. The respective domestic versions of the call for proposals are legally binding.



- new electrodes for high-energy density, high performance Li-ion batteries,
- electrolytes for high-energy density, high performance Li-ion batteries,
- electrode and electrolyte materials with enhanced stability,
- high-safety Li-ion batteries,
- new electrochemistry and battery architecture for post Li-ion electrochemical energy storage technologies.

3. Funding recipients / Prerequisites for funding

The funding measure is aimed at higher education institutions and non-university research institutions.

As an orientation, funding will depend on the expected scientific gain and high potential for realization and success in line with the objectives of the funding measure. Applicants must be able to furnish evidence of previous work in the field and must demonstrate considerable willingness to cooperate. The project proposals must describe in a specific way, how the research collaboration between Taiwan and Germany will be promoted.

As an orientation, funding will be provided for a collaboration consisting of at least one partner from Germany and one partner from Taiwan. Mere alliances of current respective projects are not eligible for funding. Specific prerequisites for funding exist depending on orientation of the topic area. The rules of cooperation between the partners in a collaborative project must be laid down in a written cooperation agreement.

4. Scope of funding

This funding scheme covers expenditure/costs for

- project-related personnel to execute scientific tasks specifically related to the project;
- project-related resources and equipment;
- travel and stays (meetings, workshops, status seminar, mutual visits).

Funding is provided by the respective funding providers (MoST in Taiwan and BMBF in Germany) in accordance with each side's applicable domestic laws and guidelines. During a mutual visit, the visiting researcher should be allowed to work in the laboratories and to use equipment of the cooperation partner for free.

The duration of a project is limited to a maximum of three years. After one and a half year, there must be a technical milestone. If the goals are not reached, the funding agencies are entitled to abort the project.

For German researchers:

For the German partners to be funded under this call, the standard BMBF-guidelines for grant applications on expenditure or cost basis, respectively, must be followed in addition to the general regulations. Submitting a proposal does not automatically entitle applicants to a grant. Funds for German partners will be awarded as non-repayable project grants. Grants for universities, research and science institutions and similar institutions are calculated on the basis of the eligible project-related expenditure.



For Taiwanese researchers:

For the Taiwanese partners to be funded under this call, the standard MoST-guidelines for grant applications on expenditure or cost basis, respectively, must be followed in addition to the general regulations. Submitting a proposal does not automatically entitle applicants to a grant. Awarded projects are categorized as international cooperation projects and will not be counted in the quota of general research projects.

5. Application procedure

The applications must contain a joint project description in English in addition to the formal and financial information required by BMBF and MoST.

Information on the formal and financial guidelines

for Taiwanese applicants is available here: <https://www.most.gov.tw/en/public>

for German applicants is available here: <https://www.bmbf.de/foerderungen/>

For German researcher teams:

Joint applications must be submitted in electronic form (<https://foerderportal.bund.de/easyonline/>) and in written form (3 hard copies) by **March 31, 2017** to the following address:

Project Management Agency Jülich

Dr. Jenna Moorkamp

New Materials and Chemistry, Materials Technologies for Energy and Mobility

Forschungszentrum Jülich GmbH

52425 Jülich, Germany

In addition to the English proposal, German partners have to submit a proposal in German. Further information will be found in the official German announcement "Neue Materialien für Batteriesysteme – Förderung deutsch-taiwanesischer Forschungskooperationen (Batterie DE-TWN)".

For Taiwanese researcher teams:

Joint applications must be submitted through the online application system for general research project of MoST in Taiwan. An official document with a list of applications should be submitted, in paper or electronic form, by the affiliation institute of applicant by **March 31, 2017** to the MoST.

A statement for the application of Germany – Taiwan Battery Research Project has been announced on the website of MoST in title of "臺德電池研究計畫(MoST-BMBF)". Research teams must follow the instruction in the statement to make the submission in both Chinese and English.

Additional written supporting documents may be requested if needed by either side according to the respective requirements of BMBF and MoST.

Prior to submission of an application prospective applicants should contact the appropriate central agencies for detailed information about respective requirements pertaining to applications and funding if necessary. The joint project description should not exceed 10 pages (font: Arial 11, single-spaced).

The proposal must include the following aspects of the project:

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1. Name, address and institute of the project coordinator and the Taiwanese and German project partners,
2. description of the partners (key competencies, capabilities, infrastructure, etc.),
3. motivation (objectives, research priorities, utilization of results),
4. scientific scope of the project (planned activities to implement the objectives of the funding measure, information on the state of the art, description of the scientific objective of the project),
5. international cooperation in the framework of the project (value added of the international cooperation, contributions made by the Taiwanese and German partners, if applicable previous collaborations),
6. detailed description of work plan, timeline, distribution of work packages, cooperation between project partners, cooperation with third parties,
7. exploitation plan (expected scientific results, consolidation of cooperation with the partners, planned measures for transfer of results to industry, planned cooperation in follow-up projects (compatibility),
8. estimated expenditure/costs.

A legal claim to funding cannot be derived from the submission of a project proposal.

6. Evaluation of proposals

BMBF and MoST each carry out an evaluation of the joint proposals received according to the following criteria:

- Fulfilment of the formal prerequisites for funding,
- relevance to the objectives of the funding measure,
- scientific criteria (scientific quality and originality of the project, expertise of the applicant and the participating Taiwanese and German partners, scientific benefit, prospects for the use and commercialization of the expected results),
- criteria of international cooperation (preparation/development of new international partnerships, consolidation of international partnerships, quality of the cooperation and value added for the partner institutions),
- plausibility and viability of the project (funding; work steps; time frame).

Following a final evaluation on both sides, a joint Taiwanese-German committee will identify suitable proposals on the basis of the above criteria and evaluation. BMBF and MoST will decide which and how many projects will be funded and in what amounts based on the results of the evaluation process and ranking and in view of budget requirements and other constraints. On the German side the authors of a selected proposal will be invited, in a second step, to submit a formal application for funding. More detailed information is provided in the German guidelines.

7. Contact persons:

Additional information can be obtained from the following contact persons:

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In Germany:

Dr. Jenna Moorkamp

Project Management Agency Jülich

New Materials and Chemistry, Materials Technologies for Energy and Mobility

Forschungszentrum Jülich GmbH

52425 Jülich, Germany

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E-mail: j.moorkamp@fz-juelich.de

In Taiwan:

Ms Hwey-Ying, Vivien, LEE (in regard to administrative concerns)

Program Director

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"Ministry of Science and Technology"

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Professor Yong-Chie HENG (in regard to international cooperation)

Vice President

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Federal Ministry
of Education
and Research

科技
部

Ministry of Science and Technology

Federal Ministry of Education
and Research (BMBF), Germany

Ministry of Science and
Technology (MoST), Taiwan

MOST-BMBF Joint Research Project on Battery Technology APPLICATION FORM

1. General Information

1.1. Integrated Project

Title in English:	
Title in Chinese:	
Title in Germany:	

1.2. Coordinators of coordination project

Taiwanese Coordinator

Name (Chinese):	Name (English):
Institution:	Department:
Position:	Tel: Email:
Signature:	

German Coordinator

Last Name:	Given Name:
Institution:	Department:
Position:	Tel: Email:
Signature:	

1.3. Category

- ☐ New electrodes for high-energy density, high performance Li-ion batteries
- ☐ Electrolytes for high-energy density, high performance Li-ion batteries
- ☐ Electrode and electrolyte materials with enhanced stability
- ☐ High-safety Li-ion batteries
- ☐ New electrochemistry and battery architecture for post Li-ion electrochemical energy storage technologies

1.4. Key words

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2. Profile of Integrated Project



Taiwanese side:

Categories	Principal Investigator	Institution/ Department	Position	Research Sub-project Title
Sub-project 1				
Sub-project 2				
Sub-project 3				
Sub- project 4				
Sub- project 5				
.				

German side:

Categories	Principal Investigator	Institution/ Department	Position	Research Sub-project Title
Sub-project 1				
Sub-project 2				
Sub-project 3				
Sub- project 4				
Sub- project 5				
.				

3. Abstract of Integrated Research Project

Please describe briefly the proposed research project first, including the aims, executive plan, expected results, potential benefits and impacts to both sides from this collaboration within two pages.

4. Budget requested for entire term of project:



Taiwanese side:

Categories	Coordinator/ Principal Investigator	First year from _/_ to _/_ (M M / Y Y)	Second year from _/_ to _/_ (M M / Y Y)	Third year from _/_ to _/_ (M M / Y Y)	Budget Requested (NT\$)
Coordination project					
Sub-project 1					
Sub-project 2					
Sub-project 3					
Sub- project 4					
Sub- project 5					
.					
.					
Total					

German side:

Categories	Institution	First year from _/_ to _/_ (M M / Y Y)	Second year from _/_ to _/_ (M M / Y Y)	Third year from _/_ to _/_ (M M / Y Y)	Budget Requested (Euros)
Coordinator					
Sub-project 1					
Sub-project 2					
Sub-project 3					
Sub- project 4					
Sub- project 5					
.					
.					
Total					

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5. Research Proposal

5.1 Aims and targets

- Motivation, aim and summary of the project idea
- Industrial and social relevance of the subject
- Scientific and technical objective of the project, innovations
- Presentation of the project partners: key competencies, capabilities, infrastructure, added value by the international cooperation

5.2 Current status

- Problem description and initial situation (comparison with the international state of the art, patent situation)
- Solution approach and its advantages
- Qualification and previous work of the involved partners

5.3 Methodology / Executive plan

- Description of the work packages and the solution approach
- Partner-specific work plan and timeline
- Milestones and abort criteria (after 12 and 24 months)
- Division of labor between the project partners (presentation of the partial activities), cooperation of the partners, if necessary cooperation with third parties

5.4 Expected results

- Expected scientific results, scientific and economic prospects of success

5.5 Potential benefits and impacts

- Planned measures for transfer of results to industry (with timescale), planned cooperation in follow-up projects (compatibility)

6. Outputs of collaborations

Please explain the proposed output of the research, and the plans for publication or other dissemination. Please also state that there is a general agreement about a policy between the two groups concerning publication of results and the attribution and exercise of Intellectual Property Rights (IPR).

7. Annex

7.1 Curriculum Vitae of all participants (main investigators) of the project (German and Taiwanese side)

7.2 List of the most important publications of the working group

(Please enclose the application form and the abovementioned two annexes in order into a PDF file and submit it online.)

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