檔　　號：
保存年限：

國家科學及技術委員會　函

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主旨：本會與德國聯邦教育研究部(BMBF)共同徵求2024年臺德半導體晶片設計學術合作研究計畫(1-3年期)，自2023年7月14日至9月5日止受理申請，請於申請截止日前完成線上申請並造冊函送本會，逾期不予受理，請查照轉知。

說明：

一、依據2023年3月21日本會與德國聯邦教育研究部(BMBF)簽署之科學及技術合作協議（STA）推動共同研究計畫。

二、臺方計畫主持人須符合本會專題研究計畫主持人及共同主持人資格，每一計畫主持人對本項徵件案僅限研提1件計畫構想書。

三、本公告計畫之執行期程自2024年5月1日開始，以1-3年期計畫為原則，雙方共同研究計畫之執行期間須相同。申請須知詳如附件，同步於本會網站/動態資訊/計畫徵求公告，雙方申請主持人分別依本會及德方BMBF之規定辦理。

四、本案聯絡人：

(一)相關計畫內容詢問，請洽科國處胡秀娟研究員，電話：（02）2737-7560、陳嘉苓小姐，電話：（02）

2737-7682。工程處梁雁惠助理研究員（02）2737-7525

(二)線上作業系統操作問題，請洽國科會資訊系統服務專線，電話：0800-212-058，（02）2737-7590、7591、7592。

正本：專題研究計畫受補助單位（共301單位）
副本：本會工程處、科教國合處、駐德國代表處科技組 112/07/13 08:01:41

主任委員吳政忠

NSTC 國家科學及技術委員會
National Science and Technology Council

Federal Ministry of Education and Research

2024 年臺德半導體晶片設計學術合作研究計畫(試辦方案)
NSTC-BMBF Joint Research Program on Advanced Chip Designs
申請須知

2023/07/12

國科會(NSTC)鼓勵國內學者與德國學者在半導體領域之學術合作，培養晶片設計軟硬體系統整合的能力，促進學生國際交流，以培養具國際視野的人才；並落實臺灣與德國於 2023 年 3 月 21 日所簽署科學及技術合作協議。由國科會與德國聯邦教育及研究部(The German Ministry of Education and Research, BMBF)共同公開徵求 2024-2027 年臺德(NSTC-BMBF)半導體晶片設計學術合作研究計畫(Joint Research Program on Advanced Chip Designs)。

本項徵件案之重點說明如下：

一、計畫主持人及共同主持人資格與限制：

(一) 臺方：須符合本會專題研究計畫(共同)主持人資格，每一計畫主持人對本項徵件案僅限研提 1 件計畫。

(二) 德方：計畫主持人須符合德方(BMBF)計畫主持人資格。

二、合作領域：

(一) Edge-AI Chip Design (智慧終端晶片設計)

(二) Chips for Emerging Application and Automotive Solution (先進晶片應用及自駕解決晶片方案)

三、補助計畫類型：

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，任一方未收到申請書，合作案無法成立。

四、計畫期程：

(一) 獲雙邊選定通過之計畫自 2024 年 5 月 1 日起開始執行，與德方共同研究計畫之執行期間相同。

(二) 計畫期程最短 1 年，最多不得超過 3 年。

五、補助經費：

(一) 經臺德雙方共同討論後選定補助計畫，並分別予以補助。

(二) 計畫補助額度：本專案將擇優補助選定之計畫，每年每件以不超過新臺幣 200 萬元為原則。

(三) 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。

(四) 與研究計畫相關之小型研討會、互訪以及鼓勵學者或學生至德國異地研究，所需經費得於計畫內提出。

(五) 臺方計畫主持人於計畫執行期間僅得支領 1 份研究主持費，同一執行期限若同時執行 2 件以上，以最高額度計算。

六、計畫收件及審查時程：

(一) 本項徵件為半導體領域合作計畫，分為「計畫構想書」及「完整計畫書」兩階段進行。獲第一階段推薦者，方可進入第二階段提送完整計畫書。

(二) **計畫構想書受理截止日：2023 年 9 月 5 日(週二)止**，申請機構須於截止期限前由本會專題計畫系統彙整送出，並依第七點(二)之規定函送本會。

(三) 計畫構想書階段，經本會與德方(BMBF)雙方獨立審查後，再共同審議選定具潛力計畫後，始由本會與德方(BMBF)分別通知雙方計畫主持人提出完整計畫書(Full Proposal)。

(四) **完整計畫書受理截止日期：2024 年 1 月 31 日(週三)止**，申請機構須於截止期限前由本會專題計畫系統彙整送出，並依第七點(二)之規定函送本會。

(五) 公告核定日期：**2024 年 4 月底前**。若因不可抗力因素、協議機構審查時間或雙邊年會時程延後等，本會得視情形調整公布審查結果時間。

七、申請方式：

(一)本項徵件為半導體領域合作計畫，分為「計畫構想書」及「完整計畫書」兩階段進行，計畫申請方式均請依以下(二)之規定函送本會，惟完整計畫書須待本會通知計畫構想書審查通過者，始得進行提交。

(二)請依循本會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：

1. 至本會網站(https://www.nstc.gov.tw/)首頁「學術研發服務網登入」處，身分選擇「研究人員(含學生)」，輸入計畫主持人之帳號(ID)及密碼 (Password)後進入。
2. 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。
3. 「研究型別」請選【個別型計畫】，「計畫歸屬」請選【工程處】，學門代碼請選【E9876-臺德半導體合作計畫】。
4. 中文計畫書名稱，於構想書階段請以【臺德半導體合作計畫構想書-】為首，續寫研究計畫名稱；完整計畫書階段請以【臺德半導體合作計畫-】為首，續寫研究計畫名稱。

5. 應填列一般專題研究計畫申請所需之各項 CM 表及工程處專屬表格，於構想書階段【CM03】表頁數至多 10 頁，於完整計畫書階段【CM03】表頁數至多 25 頁，中英文不限。
6. 【CM01】申請表內【本計畫是否有另外申請國際合作研究】欄位應勾選【是】；除一般專題計畫申請所需之各項 CM 表及相關學術處規定文件，亦應填具【IM01】、【IM02】、【IM03】國際合作計畫表。
7. 【IM01】表之「合作國家」請選「與單一國家合作」，「國別」請選填【334 德國】。「國外合作計畫經費來源」為本會雙/多邊協議機構，並勾選【德國聯邦教育及研究部(BMBF)】
8. 【IM02】表屬國際合作研究計畫其他相關附件上傳功能鍵，請將本項申請案之(1)共用英文申請表:「NSTC-BMBF Joint Research Program on Advanced Chip Designs APPLICATION FORM」、(2)德方計畫主持人英文履歷及著作目錄等資料依序合併為單一 PDF 檔案後上傳至系統，未上傳者視為申請資料不全。本項資料請勿超出 10 頁(不包含德方計畫主持人英文履歷及著作目錄等資料)。

（三）計畫構想書及完整計畫書申請案須由主持人任職機構於系統中彙整後送出，依本會「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，並依計畫歸屬處別列印）一式二份，並依第六點(二)及(四)之規定時間內函送本會(以發文日期為準)。

八、注意事項：

(一) 本項共同研究計畫須經本會與德方(BMBF) 雙方獨立審查後，再共同審議選定補助計畫，故不受理申覆。

(二) 具以下情況的之申請案恕不受理：

1. 德方計畫主持人資格未符BMBF之規定；
2. 德方計畫主持人未依BMBF規定提出計畫；
3. 申請日期超過公告截止日期；
4. 申請資料不全；
5. 未依本會專題研究計畫作業要點規定及本申請須知所述方式提出。

(三) 本案通過之計畫可不受本會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)」及「雙邊協議擴充加值(add-on)國際合作計畫」合計仍以 2 件為限。倘計畫主持人申請時已執行 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，主持人另執行此類計畫達 2 件時，本會將不再核予此第 3 件。

(四) 計畫核定後之經費撥付、報銷與報告繳交作業，均依本會補助專題研究計畫作業要點等相關規定辦理。

(五) 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，並據以評

估每項計畫之合作成效，評估結果將作為計畫繼續或終止補助、補助經費調整，以及計畫調整之依據。

(六) 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。

(七) 年度所需經費如未獲立法院審議通過或經部分刪減，本會得依審議結果調減補助經費，並按預算法第五十四條規定辦理。

九、承辦人聯繫資料：

臺方：

國科會 科教發展及國際合作處 胡秀娟研究員

電話：+886-2-2737-7560

Email: jenhu@nstc.gov.tw

德方：

For the German partners to be funded under this call, please contact BMBF directly.
Reference: https://www.bmbf.de/bmbf/shareddocs/bekanntmachungen/de/2023/06/2023-06-02-Bekanntmachung-Chipentwicklung.html

Additional information can be obtained from the following contact persons:

Dr. Tina Tauchnitz, Dr. Korbinian Schreiber
VDI/VDE Innovation + Technik GmbH
Project Management Agency “Electronics and autonomous driving; supercomputing” on behalf of Federal Ministry of Education and Research, Germany (BMBF)
Steinplatz 1, 10623 Berlin, Germany
Tel.: +49 30 310078 3584
E-mail: Designinitiative-ME@vdivde-it.de

NSTC 國家科學及技術委員會
National Science and Technology Council

Federal Ministry of Education and Research

2023/07/12

ANNOUNCEMENT on the GERMAN – TAIWANESE
Call for Joint Research Program on Advanced Chip Designs 2024

The deadline for this call for preproposals[1] is **September 5, 2023**.
The duration of this call for research project is 1-3 years.

1. Objective of the funding measure

The German Federal Ministry of Education and Research (BMBF) and the Taiwanese National Science and Technology Council (NSTC) aim to deepen their cooperation in the field of semiconductor. 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 both countries. Within the framework of the Scientific and Technological Cooperation Arrangement (STA), this call is intended to fund cooperation projects between German and Taiwanese scientists in the field of semiconductor.

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 in both countries. 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 bilateral 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 basic science, applied research, development and innovation in semiconductor which are important for both countries:

- Edge-AI Chip Design
- Chips for Emerging Application and Automotive Solution

[1] This English-language call is for information purposes only. This version is not legally binding. The respective national versions of the call for proposals are legally binding.

3. 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 national funding providers (NSTC in Taiwan and BMBF in Germany) in accordance with applicable national 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 up to three years. Yearly reports will be required and joint events for progress reports and research results sharing are encouraged.

<u>For German researchers:</u>

For the German partners to be funded under this call, please contact BMBF directly.

<u>For Taiwanese researchers:</u>

For the Taiwanese partners to be funded under this call, the standard NSTC-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.

4. Application procedure

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

Information on the national formal and financial guidelines

for Taiwan applicants is available here: https://www.nstc.gov.tw/folksonomy/rfpList

for German applicants is available here:

https://www.bmbf.de/bmbf/shareddocs/bekanntmachungen/de/2023/06/2023-06-02-Bekanntmachung-Chipentwicklung.html

<u>For Taiwanese researcher teams:</u>

Joint applications must be submitted through the online application system for general research project of NSTC 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 **September 5, 2023** to the National Science and Technology Council.

A statement for this call for pre-proposals has been announced on the website of NSTC in title of

"2024 年臺德半導體晶片設計學術合作研究計畫(試辦方案) NSTC-BMBF Joint Research Program on Advanced Chip Designs 申請須知". 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 national requirements.

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

The proposal must include the following aspects of the project:

- Name, address and institute of the project coordinator and the Taiwanese and German project partners,
- description of the partners (key competencies, capabilities, infrastructure, etc.),
- motivation (objectives, research priorities, utilization of results),
- 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),
- 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),
- detailed description of work plan, timeline, distribution of work packages, cooperation between project partners, cooperation with third parties,
- 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),
- estimated expenditure/costs.

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

5. Timeline:

Deadline for preproposals: September 5, 2023
Deadline for full proposals: January 31, 2023 (based on information provided by NSTC and BMBF's invitation)
Implementation: start from May 1, 2024

6. Evaluation

Both countries 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 bilateral/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 joint committee's decision, selected preproposals will be invited to submit full proposals by January 31, 2024. By the end of April 30, 2024, NSTC and BMBF 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.

7. Contact persons:

Additional information can be obtained from the following contact persons:

In Germany:

Dr. Tina Tauchnitz, Dr. Korbinian Schreiber
VDI/VDE Innovation + Technik GmbH
Project Management Agency "Electronics and autonomous driving; supercomputing" on behalf of Federal Ministry of Education and Research, Germany (BMBF)
Steinplatz 1, 10623 Berlin, Germany
Tel.: +49 30 310078 3584
E-mail: Designinitiative-ME@vdivde-it.de

In Taiwan:

Professor Chen-Yi Lee (in regard to scientific concerns)
National Yang Ming Chiao Tung University (NYCU)
Tel.: +886-03-5712121 ext. 50067
E-mail:cylee@nycu.edu.tw

Ms Jennifer Hu (in regard to administrative concerns)

Program Director
Department of International Cooperation and Science Education
National Science and Technology Council
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NSTC 國家科學及技術委員會
National Science and Technology Council

Federal Ministry of Education and Research

2023/07/12

NSTC-BMBF Joint Research Program on Advanced Chip Designs

APPLICATION FORM

1. General Information

1.1 Project titles:

Title in English (Acronym):	
Title in Chinese:	
Title in Germany:	

1.2 Project PIs:

Taiwanese Principal Investigator

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

German Principal Investigator

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

1.3 Category:

☐ Edge AI Chip Design
☐ Chips for Emerging Application and Automotive Solution

1.4 Key words:

2. Abstract of 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.

3. Budget requested for entire term of project and financial plan:

3.1 Budget requested

Taiwanese side:

Categories	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$)
project					
Total					

German side:

Categories	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 (Euros)
Project					
Total					

3.2 Partner-specific detailed financial plan (personnel, materials, equipment, travel and stays, etc.)

4. Research Proposal

4.1 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
- Presentation of the project partners: key competencies, capabilities, infrastructure, added value by the international cooperation

4.2 Current state of the art and innovations

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

4.3 Methodology / Executive

- Description of the work packages and the solution approach
- Partner-specific work plan including indication of personnel resources (i.e. person-month) per work package and partner, timeline, on-site research exchange plan, …etc
- 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

4.4 Expected results

- Expected scientific results, scientific and economic prospects of success
- Application potential of results in science and/or industry

4.5 Potential benefits and impacts

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

- Scientific and, if possible, economic exploitation of the results created within the project
- Benefits of solution approach for Taiwanese and German semiconductor ecosystem, i.e. technological sovereignty, skilled workers and talents
- Leverage and widespread impact of target solution

5. 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).

6. Annex

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

6.2 List of the most important publications of the working group

(Taiwan PIs should include the Annex in their application form submitted on-line to NSTC.)

Page Limit

Application form excluding item 6 shall be no more than 10 pages.