Joint Proposal

Digital Technologies for Green

Version 12.04.2023

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| **Call:** | *Digital Technologies for Green – Bilateral Call between FFG and the Chinese Academy of Sciences* | | |
| **Full title of the project:** | *Project title (max. 120 characters)* | | |
| **Short title of the project:** | *Acronym (max. 20 characters)* | | |
| **Applicant:** | *Name of research organisation, company or institution applying for funding in Austria at FFG:*  *Name of research organisation applying for funding in China at CAS:* | | |
| **Project partner(s):** | *Name(s) of research organisation, company and/or institution applying for funding in Austria:*  *Name of research organisation applying for funding in China, CAS:* | | |
| **Research category:** | Industrial Research (IR)  Experimental Development (ED) | | |
| **Project duration:** | From [MM.YY] | Duration in months (max. 36) | |
| **Costs[[1]](#footnote-1):** | Total costs [€]: | | Total funding [€]: |
| **PROJECT GOALS:**  *Please present the goals and innovative contents of the project with a maximum of 5 sentences.* | | | |

# General Aspects

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## Checklist for Submission

The information provided in Chapter 0.1 to Chapter 0.2 is designed to help you in your submission and can be deleted in the final Project Description to be uploaded as an attachment via eCall.

### Checklist for formal check

The formal check serves to check the application for formal correctness and completeness. Please note: **If the formal requirements are not met and the deficiencies cannot be corrected, the proposal will be excluded from the further procedure and will be formally rejected without exception in accordance with the principle of equal treatment of applications.**

| **Criterion** | **Items checked** | **Can deficiency be corrected?** | **Consequence** |
| --- | --- | --- | --- |
| Completeness of the application | *Joint Proposal: thematic content (upload as .pdf document via FFG eCall and to the Headquarters of CAS)*  ***Please make sure that an identical version of the joint proposal is submitted to FFG and CAS. Non-identical versions are not eligible; alteration and addition of chapters or headings are not permitted*** | *No* | Rejection as result of formal check |
| Use of correct forms | *Template for Joint Proposal (see download center at* [FFG website](https://www.ffg.at/digitaltechnologies-china2023) *or* [*CAS Website*](http://www.bic.cas.cn/tzgg/) | *No* | Rejection as result of formal check |
| Project duration | max. 36 months | *No* | Rejection as result of formal check |
| Language | English | *No* | Rejection as result of formal check |
| Minimum requirements of consortium | * Participation of at least 2 organisations involving at least   + 1 company and   + 1 research organisation * Share of research institution(s) in project costs is minimum 10% and maximum of 80% * Companies share is a minimum of 20% and a maximum of 90% * Individual enterprises account for a maximum of 70% of the eligible project costs with shares of affiliated companies counting as one enterprise | *No* | Rejection as result of formal check |
| Funding amount | * Austrian partners: Total amount of funding has to be between 100,000 EUR and 1 Mio EUR * CAS partners: up to 300,000 CNY per year for a total of 3 years | *No* | Rejection as result of formal check |
| **Consent regarding exchange of personal information between CAS and FFG**  (Chapter 0.3) | *Please see Chapter 0.3 Data Protection of this document and give your consent by ticking the checkbox* | *Yes* | Rectification is possible, however a consent for Chapter 0.3 Data Protection is necessary for an eligible submission |
| Further national requirements | *Please see the relevant national documents at FFG and CAS* | *Yes* | Rectification is possible |

### General points

* Adhere to the questions. Questions, comments and notes marked in blue in the form may be overwritten or deleted
* Describe your project in sufficient detail for reviewers to form an accurate impression of your planned project. Try to keep your text precise and to the point.
* The maximum number of pages is NOT a request to reach this limit. Applications should enable the reviewers to understand the topic and the benefits resulting from the proposed project. Quality is more important than quantity.
* In the event of any questions please refer to your contact person at the FFG and CAS (contact information is available in the call fiche).

## Submission

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| --- |
| **Submission deadline for FFG:**  **Joint Proposal for funding must be submitted to FFG via eCall by 17.07.2023, 12:00 o´clock at Central European Summer Time (C.E.S.T.)!**  **Submission deadline for CAS:**  **Joint Proposal for funding must be submitted to the headquarters of CAS via ARP system by 17.07.2023, 18:00 o´clock at China Standard Time (C.S.T.)!** |

## Data Protection

Since there are no existing adequacy decision and guaranties in the sense of the General Data Protection Regulation (GDPR) according to article 44 ff. GDPR by the European Commission regarding the exchange of personal information between China and Austria, the Austrian and Chinese consortium must give consent that personal information may be exchanged between CAS and FFG for the purpose of evaluating the project proposals. Since the exchange of joint proposals, which may contain personal information (for example CVs), between FFG and CAS is necessary for the evaluation of the projects, a proposal without the consent cannot be further evaluated and will be rejected as result of the formal check. By ticking the checkbox below all applicants and project partners consent that personal information may be exchanged between CAS and FFG for the purpose of evaluating the project proposals.

|  |  |
| --- | --- |
|  | The Austrian and Chinese consortium hereby declares that by submitting this Joint Proposal to FFG via eCall and/or to the headquarters of CAS via ARP system all applicants and project partners consent that personal information may be exchanged between CAS and FFG for the purpose of evaluating the project proposals. Furthermore, all applicants and project partners consent that they have been informed hereby about possible risks of data exchange between FFG and CAS without an existing adequacy decision and without any guaranties in the sense of the General Data Protection Regulation (GDPR) according to article 44 ff. GDPR by the European Commission. |

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# Abstract

Summary in English (max. 1 page)

The concise summary should include the following points:

* initial situation, problem to solve and motivation to carry out the R&D project
* goals and level of innovation compared to the state of the art (level of technology/knowledge)
* expected results and findings

# Quality of the Project

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## State of the art – current level of technology/knowledge

(max. 7 pages)

Describe the current state of the art, i.e. current level of technology/knowledge, relevant to the project based on the following criteria:

* State of the art – current level of technology/knowledge
  + in the company or research institution itself
  + in the national innovation system
  + in Europe (including EU projects), in China and overall internationally
  + results of patent searches
* Relevant products, procedures or services that are already on the market
  + by the company/company group
  + by competitors
* Relevant alternative technologies, methods and approaches that are in competition with the proposed approach

### Results from other projects

Please explain the differences to other projects carried out by the consortium partners in the past three years. Include in particular all ongoing and completed projects of thematic relevance. Special focus should be placed on the results you intend to use for your project and potential synergies. Use the description to underline that you have the expertise and experience to carry out the proposed project (supplementary to Chapter 2, Suitability of Applicant / Project Partners).

**Only for Austrian project partners:**

If these projects were funded by the FFG, please indicate the FFG project number and the project title.

Use the following table to provide the relevant information:

**Existing results and deliverables obtained from publicly funded projects that provide the basis of or feed into the proposed project**

| **Funding provider** | **Project number** | **Title** | **Description of results already obtained and relevant deliverables (verifiable results / products of R&D work) in terms of the basis for / differentiation from the proposed project** | **Location and type of documentation**  **(e.g. link to homepage, publication, conference proceedings, interim report, final report, …)** |
| --- | --- | --- | --- | --- |
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## Degree of innovation

(max. 8 pages)

### Problem and research need

Clearly point out the problem and/or unsolved scientific/technical questions giving rise to the need for a funded research and development project.

### Goals

Describe briefly and concisely the key qualitative and quantitative goals and expected results of the project. These goals should be clear, measurable, realistic and achievable within the project duration. They should also be consistent with the benefit and exploitation of the results.

### Degree of innovation and associated risk

Describe the degree of innovation with reference to the state of the art (current level of technology / knowledge) as well as relevant products, procedures and services presented in 1.1.

* How do the goals of the project go beyond the state of the art (current level of technology / knowledge):
  + in the company or research institution itself
  + at national level
  + at international level
* How does the project improve existing solutions, cause a technological leap or create the basis for the registration of IPRs?
* Please quantify the improvements to be achieved (e.g. higher efficiency, lower cost, faster throughput, enhanced functions, etc.), or explain why the degree of innovation can only be described qualitatively.
* Describe the technical and economic risk involved at project and/or partner level. Describe the provisions made to ensure that the funding has a high impact despite the high risk involved (risk management, risk and contingency plan). However, you should not limit yourself to describing the risk in terms of project management.
* Justify your classification for one of the research categories “Industrial Research” or “Experimental Development”. If necessary use the Technology Readiness Levels (TRL).

## Integration of gender-specific aspects

(max. 1 page)

If the project relates to people, please explain how and in what work packages gender-specific aspects have been taken into account in the methodological approach.

## Consideration of sustainability effects

(max. 1 page)

Please describe what contribution the planned project will make to the ecological/social/economic sustainability goals that you think are relevant, indicating the key relevant Sustainable Development Goals of the United Nations (UN SDGs) and, if applicable, the EU Green Deal. Sustainability goals from other strategy documents may also be included.

Please refer to the Call Guidelines for further information about the topic of sustainability.

* Please provide the following information with regard to the above sustainability goals:
  + Description of the positive effects (ecological, social or economic effects)
  + Qualitative and quantitative assessment of the positive effects, if sufficient data are available; describe the effects as compared to the state of the art (e.g. sectoral average, alternative processes…)
  + Description and consideration of system boundaries / system relevant issues (e.g. effects within value networks,…)

Please note: Negative displacement effects should also be taken into account.

If the planned project is not expected to achieve explicitly positive effects / contributions to sustainability goals at any time (research, benefit and exploitation, ex-post impact monitoring and beyond), we would ask you to explain and justify this neutral status / effect.

Please note that projects producing overall (net) negative effects will score 0 points in this criterion.

## Quality of planning

### Overview and description of work packages

The Work Package (WP1) **Project Management** is mandatory. A maximum of 10 work packages are permitted.  
**For Austrian partners only:** Please ensure consistency with the eCall data.

Please insert additional rows if necessary: place cursor in last row and select “Table 🡪 insert 🡪 row below” from the menu bar.

**Overview of work packages**

| **WP**  **Nr.** | **Work package title** | **Duration (months)** | **Start**  **MM/YY** | **End**  **MM/YY** | **Planned result** |
| --- | --- | --- | --- | --- | --- |
| 1 | Project Management |  |  |  |  |
| 2 |  |  |  |  |  |
| n |  |  |  |  |  |

**Overview of milestones**

| **Milestone No.** | **Milestone title** | **Work packages involved** | **Expected date** | **Milestone is achieved if:** |
| --- | --- | --- | --- | --- |
| 1 |  |  |  |  |
| 2 |  |  |  |  |
| n |  |  |  |  |

### Detailed description of work packages

Describe the contents of the individual work packages, the results expected within the duration of the project and the milestones. The individual methods and steps must be clearly and consistently defined and/or described (about 1 page per work package).

The table should be copied and completed separately for each work package (WP).

**Description of work package**

| **WP Nr.** |  | **Title of WP:** |  |
| --- | --- | --- | --- |
| **Participating organisation (A/Pn) and person-months per organisation:** | | | |
|  | | | |

| **Goals:** |
| --- |
|  |

| **Description of contents:** |
| --- |
|  |

| **Method:** |
| --- |
|  |

| **Milestones (to measure project progress), planned results and deliverables (verifiable results / products of R&D work)** |
| --- |
|  |

### Work and time schedule (Gantt chart)

Insert a detailed work and time schedule. Please pay attention to readability.

### Description of cost plan

(max. 1 page)

Please explain the relevance of the items listed in the cost plan for the project: personnel costs, costs of infrastructure use, costs of materials, third-party costs and travel costs (especially purpose of travel).

Please note: All costs included in the cost plan must be allocated to the individual work packages at partner and project level and must be explained and justified in this chapter.

**Furthermore:**

Please be aware that currency conversion rate for the table “Description of the costs of all project partners in EURO” and table “Description of the costs of all project partners in CNY” beneath is recommended to be based on the daily Euro foreign exchange reference rates of the [European Central Bank](http://www.ecb.europa.eu/stats/exchange/eurofxref/html/index.en.html)

Or it could also be based on a monthly agreed Euro foreign exchange reference rate of the [European Commission](http://ec.europa.eu/budget/contracts_grants/info_contracts/inforeuro/inforeuro_en.cfm).

The rate is based on the daily conversion rate of European Central Bank, ECB or the European Commission monthly Euro foreign exchange reference rate.

Please indicate here the day or month on which the Euro foreign exchange reference rate to Chinese Yuan Renminbi (CNY) is based on with regard to the two following tables.

**Day or month of EURO foreign exchange reference rate: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Description of the costs of all project partners in EURO**

| **Applicant / partner** | **Person Month** | **Personnel Costs**  **[EUR]** | **R&D Infrastructure [EUR]** | **Costs of Materials [EUR]** | **Travel Costs [EUR]** | **Third-party Costs [EUR]** | **Total costs**  **[EUR]** | **Own contribution**  **[EUR]** | **Funding applied for [EUR]** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Name of Institution/ Company |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| SUM |  |  |  |  |  |  |  |  |  |

**Description of the costs of all project partners in CNY**

| **Applicant / partner** | **Person Month** | **Personnel Costs**  **[CNY]** | **R&D Infrastructure [CNY]** | **Costs of Materials [CNY]** | **Travel Costs [CNY]** | **Third-party Costs [CNY]** | **Total costs**  **[CNY]** | **Own contribution**  **[CNY]** | **Funding applied for [CNY]** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Name of Institution |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| SUM |  |  |  |  |  |  |  |  |  |

Please be aware that ALL costs (**including total Personnel Costs**) for all Partners (Austrian and Chinese Partners) which are necessary to carry out the project have to be inserted into table “Description of the costs of all project partners in EURO” and table “Description of the costs of all project partners in CNY” beneath, since these tables are used for calculating whether the overall requirements, presented in Chapter 0.1, are met by the consortium. In the case that necessary information is missing in the two following tables or the requirements are not met, the proposal will be rejected as a result of the formal check.

### Third-party costs (if exceeding 20% of total costs per partner)

(max.1/4 page)

Third-party costs should not exceed 20% of the total project costs per partner. Please justify any excess.

# Suitability of Applicant / Project Partners

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## Expertise of project partners

(max. 1 page per partner)

### Applicant to CAS (A-CAS)

1. Name of CAS Institute / Research Group
2. Relevant expertise of organisation and staff involved in the project. Provide evidence of relevant expertise by enclosing CVs of senior scientific and technical project staff and a list of the major (max. 5) publications relevant to the project.
3. Description of know-how relevant to the project, e.g. market success, patents
4. Description of existing infrastructure relevant to the project and other aspects indicating the applicant’s ability to perform the project

### Applicant to FFG (A-AT)

1. Name of Austrian company and/or facility
2. Relevant expertise of organisation and staff involved in the project. Provide evidence of relevant expertise by enclosing CVs of senior scientific and technical project staff and a list of the major (max. 5) publications relevant to the project.
3. Description of know-how relevant to the project, e.g. market success, patents
4. description of existing infrastructure relevant to the project and other aspects indicating the applicant’s ability to perform the project

### Chinese Project Partners (Pn-CAS)

This page is to be completed individually and separately for each Chinese project partner.

1. Name of CAS Institute / Research Group
2. Relevant expertise of organisation and staff involved in the project. Provide evidence of relevant expertise by enclosing CVs of senior scientific and technical project staff and a list of the major (max. 5) publications relevant to the project.
3. Description of know-how relevant to the project, e.g. market success, patents
4. Description of existing infrastructure relevant to the project and other aspects indicating the applicant’s ability to perform the project

### Austrian Project Partners (Pn-AT)

This page is to be completed individually and separately for each Austrian project partner.

1. Name of Austrian Institute / company
2. Relevant expertise of organisation and staff involved in the project. Provide evidence of relevant expertise by enclosing CVs of senior scientific and technical project staff and a list of the major (max. 5) publications relevant to the project.
3. Description of know-how relevant to the project, e.g. market success, patents
4. Description of existing infrastructure relevant to the project and other aspects indicating the applicant’s ability to perform the project

## Capacity of the consortium to achieve the project goals

(max. 2 pages)

### Completeness and coordination of required expertise

Please use the following table and additional descriptions to illustrate that the chosen consortium structure is suitable for achieving the qualitative and quantitative goals and expected results within the planned project period. Show that the consortium has the scientific, technical and economic expertise required for the project.

**Description of the main tasks of all project partners**

| **Workpackage** | **Key expertise required for the workpackages** | **Name of Partner with required key expertise** |
| --- | --- | --- |
| 1 |  |  |
| 2 |  |  |
| 3 |  |  |
| 4 |  |  |
| 5 |  |  |
| X |  |  |

### Third-party expertise required

Please describe the fields of expertise that are not covered by the consortium and must therefore be contributed by a third party (e.g. via subcontracts). Name the subcontractors and describe in what form they will contribute the relevant expertise.

Describe **subcontracts that exceed EUR 10.000** individually and in detail (task, performance of the work, duration). If the subcontractor is not known, describe the aim of the work to be subcontracted and the qualifications to be met by the subcontractor.

This page should be copied and completed for each subcontractor. (max. 1 page per subcontractor).

1. General information subcontractors

**General information**

|  |  |  |  |
| --- | --- | --- | --- |
| **Relevant WP** |  | **Subcontractor of A-SAC, A-AT/ Pn-CAS; Pn-AT** |  |
| **Name of subcontractor** |  | | |
| **Contribution of subcontractor** |  | | |

1. Detailed description of task and activities by subcontract (task, scope of work, performance of work, duration). **The description is needed in addition to the table above.**
2. Offer/s (if available)

## Composition of project team with regard to gender balance (gender mainstreaming)

(max. 1/2 page)

Please describe why the gender balance in the project team is an improvement over current conditions in the sector. Alternatively, justify why it is not possible to achieve a better gender balance.

# Benefit and Exploitation

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(max. 4 pages)

## User benefit and exploitation potential

Describe the benefits of the project results and/or new technologies and planned innovations for users from the perspective of the partners involved in the project in both qualitative and quantitative terms (external benefit):

* What new knowledge can be gained from the project in the relevant scientific/technical target group?
* For whom are the results relevant?
* What are the USPs of the planned project results?
* What economic or other benefits will the planned solution, product, process or service bring to your customers?
* How large is the expected target market for the project results
* in Austria, in China
* in neighbouring countries
* worldwide?
* How do you define this target market?
* On what facts are your estimates based?

## Impact and significance of the project results for the organisations involved in the project

Describe the strategic significance of the project results and/or new technologies and planned innovations for the organisations involved in the project in both qualitative and quantitative terms (internal benefit):

* Long-term increase in R&D capacities
* Securing or extending the organisation's R&D position
* Expansion of existing R&D activities to include new fields of application
* Development of R&D platforms
* Opening up of new business fields etc.

## Exploitation strategy

Describe the exploitation strategy for the project results for each individual partner involved in the project in qualitative and quantitative terms. Please also indicate any specific exploitation expertise the relevant organisation has. **If the exploitation of the results has a significant impact on people, please also indicate how gender-specific issues have been taken into account in the exploitation of the economic potential.**

Research-oriented organisations

* [Planned number of]: diploma and doctoral theses, publications in national and international journals (with or without review process), national and international conference papers, national, European and international patent applications, workshops, events and conferences, expert advisory boards, etc…

Companies and application-oriented organisations

* [Planned number of]: industrial property rights, licences, national, European and international patent applications (in selected countries)
* Exploitation via subsidiaries, distribution partners
* based on competitive edge in fields such as production, expertise, trade secrets, market presence
* collaborations with third parties aimed at development and exploitation
* Marketing strategy
* Sales strategy
* Business plans
* Investment plans

# Relevance of the project

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(max. 2 pages)

## Relevance to the Call

Please list the **call topic** (or call topics in descending order) primarily addressed by your project.

Further explanation is not necessary

## Incentive effect of funding (additionality)

Please explain how funding changes the project in terms of:

* **Enabling:** The project could not be carried out without funding.
  + Please explain why funding is necessary to enable the project.
* **Duration:** The project can be completed within a shorter period of time than possible without funding
  + Explain to what extent and why funding helps to speed up the completion of the project.
* **Size**: Size of the project can be increased compared to the project being carried out without funding
  + Give reasons why the size of the project can be increased compared to the project being carried out without funding.
* **Scope**: The scope of the project can be increased.
  + Give reasons why the funding makes the project more ambitious. A higher level of ambition can mean that the project…
    - is focused on more radical leaps in innovation
    - follows a more long-term and research-intensive [as opposed to market oriented and development intensive] approach
    - involves a higher technical risk
    - involves a higher market risk
    - leads to new or more extensive collaborations

Please demonstrate the incentive effect of the funding in accordance with the criteria applicable to the project.

**ANNEX**

* CVs of Chinese and Austrian key persons and researchers
* Further relevant information listed in the respective national call announcements if applicable. See download center at [FFG website](https://www.ffg.at/digitaltechnologies-china2023) or at the download center at [CAS website](http://www.bic.cas.cn/tzgg/).

1. The EUR-CNY conversion rate of the European Central Bank ECB at the date of submission shall apply. This can either be the reference date specified in the Joint Proposal or the conversion rate provided by the ECB on a monthly basis. [↑](#footnote-ref-1)