{GRAPHIC}

{Date}

Applicants:

{{Institute Director}

{Institute, institute abbreviation}

Tel. {XXX}

E-mail {XXX}

{External scientist}

{Affiliation}

Tel. {XXX}

E-mail {XXX}

ATTRACT application

{Brief title of project}

{Full title of project}

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# Summary

{Enter a summary of your project proposal here of no more than one page. PLEASE NOTE: If the application is approved, this summary will be published on the Fraunhofer intranet.}

{Summary content:

*Why*: basic motivation (environment, economy, society) / brief description of gaps or weaknesses in existing technologies, processes and products

*What:* Content of the project with solution idea

*Desired result:* Objective of the project and target characteristics of the demonstrator or process to be developed, quantified if possible. What benefits are expected as compared to current approaches and solutions?

*Strategic embedding:* Synergy effects between the expertise of the external applicant and the institute, development of new business fields, development of new markets, etc.

*Target markets:* Which companies, industries or target groups are intended as buyers of the project result?}

# Objective and R&D content

## Motivation and relevance

{*Motivation*: Describe briefly the general background of your project idea.}

### Strategic embedding of the project

{From the point of view of which strategic considerations should the project be implemented? How will the project idea and the planned group be embedded in the Fraunhofer Institute submitting the application? For example, is there link to the implementation of Fraunhofer strategies? Are there plans for long-term career development of the group leader?

*Roadmap*: Show the strategic link to a roadmap, where relevant. Is the project particularly relevant to Fraunhofer’s social mission?}

### Personal motivation of the external candidate

{*Personal motivation* for the project from the external candidate's point of view, and the latter’s professional and personal goals relating to the project (in the first person, please)}

## State of the art in science and technology

### International state of the art in science and technology

{What is the worldwide state of the art in science and technology in the areas relevant to the project? What available/potential alternative technologies already exist? What working groups/companies are nationally/internationally relevant?}

Table 1Overview of existing technologies

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Designation/location | Technology | Development status | Patents | Relation to Fraunhofer |
| {Company XYin city XY} | {Technology XY} | {e.g. on the market since XY} | {DEXXXXXXXXXXXXXXDE…} | {e.g. spin-off of FhI XY} |
| ... | … |  | … |  |
| … | … |  | … |  |

### State of the art in science and technology at Fraunhofer

{Please explain the state of the art in science and technology at the applying institute (e.g. own relevant preliminary work, where relevant in other areas, too). Please include a list of relevant past projects. Please also indicate the state of the art at other Fraunhofer Institutes.}

Table 2 Past Fraunhofer projects

|  |  |  |  |
| --- | --- | --- | --- |
| Institute | Technology | Development status | Patents |
| {Institute abbreviation} | {Technology XY} | {e.g. on the market since XY} | {DEXXXXXXXXXXXXXXDE…} |
| ... | … |  | … |
| … | … |  | … |

### Competencies and preparatory work offered by the external candidate

{What competencies (IP if applicable) is the external candidate able to contribute to the new project group? If required, please include a list of relevant past projects as for Table 1 or refer to this table here}

## Project objectives

{Describe the objectives of your project here. What advantages are to be achieved as compared to the above-mentioned state of the art? It may be helpful to specify a hierarchy of objectives (e.g. as a graphic), i.e. showing global/main objectives and subgoals.}

* Objective 1
* Objective 2
* Objective 3

## Approach

{Sketch out your approach. For details, please refer to the work schedule (Section 4.1). List the success factors critical to achieving the project objectives (e.g. show-stopper, time-critical machine availability) as well as the main risks relevant to the project (the latter based on Table 3 attached) at the time of the evaluation.}

Table 3 Project-related main risks

|  |  |  |
| --- | --- | --- |
| Riskdescription | Probability of occurrence  | Mitigation measure |
| …. | low | … |
| … | medium | … |
| … | high | … |

*{Key:*

*low: limited range of relevant results at risk*

*medium: some results at risk*

*high: success of the whole project at risk}*

## Originality, scientific challenge and synergies

{Highlight the unique selling propositions of your idea/target technology or solution and name the special scientific challenge involved.}

{Explain why the applying consortium (institute and external candidate) is particularly well suited to implementing the project and achieving the objectives. What synergies will result in the long term with other Fraunhofer Institutes?}

## Project results

{Summarize the main anticipated project results/solutions in the following table in such a way that they can be referenced for your further line of argument and work schedule.}

{Products or deliverables}

Table 4 Anticipated project results and evaluation criteria for the results

|  |  |
| --- | --- |
| **Result** | **Evaluation criteria** |
| {Anticipated Project Result 1} | {Description of what measurable characteristics the result has to exhibit in order for success to be assessable and/or identifiable, and which requirements have to be met. This can be done by specifying target parameters in comparison to existing solutions, for example. Where possible, the time horizon should also be specified.} |
| {Anticipated Project Result 2} | {Evaluation criteria ...} |

# Research market and competitive analysis

## Presentation of the research market

{Explain which new market or significant expansion of which existing market will be realized from the institute’s point of view.

Please verify the plausibility of the market size and revenue potential and quantify your information as far as possible.}

## Competition analysis and own positioning

{Assess the competitors presented under »State of the art«.

Explain to what extent the intended solution offers a clearly recognizable benefit and advantages over known alternatives.

For this purpose you should also complete the SWOT table.}

Table 5 SWOT analysis

|  |  |
| --- | --- |
| **Strengths** | **Weaknesses** |
| **Opportunities** | **Threats** |

## Exploitation strategy

### IP strategy

{Please reflect on the role of industrial property rights in the research field. Evaluate the results of your own patent search in terms of its relevance to your project. In the application, present the results only, and if necessary refer to the detailed explanation in the appendix (including search strings). Based on this, explain your own IP strategy.}

### Exploitation scenario incl. business models envisaged

{Describe your intended exploitation scenario and market access strategy (e.g. R&D contracts, spin-offs, licensing). Pay particular attention to the intended business models.

Do you already have contacts (through the institute and/or the external candidate) with important cooperation partners in industry and science?}

# Project management

## Work plan

### Project structure plan

{If possible, provide a graphic illustration of the project structure (e.g. division into subprojects, work packages, ...)

### Scheduling, Gantt diagram

{Insert your overview bar chart for the project here. *The template below does not have to be used for this purpose, however –* it simply shows the minimum requirements for the Gantt chart. The granularity of the presentation should be chosen so that the project process is transparent to Evaluation Committee members and they are able to assess it. A detailed plan – if already available – can be attached to the proposal if necessary. It may also be useful to introduce project phases and subprojects.}

Table 3 Gantt diagram

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** |
| **Work packages** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| No. | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| No. | 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| No. | {…} |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Milestones** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| No. | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| No. | 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| No. | 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| No. | 4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| No. | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

### Work packages

Table 4 Work packages

|  |  |  |
| --- | --- | --- |
| **Input** | **Work package {No.}** | **Output** |
| {What input is required? e.g. reference to other work packages or existing competencies at the institute or the Fraunhofer-Gesellschaft } | {Brief description of the work content, possibly listing subordinate activities} | Anticipated result(s), possibly with a reference to work packages required for the output |

|  |  |  |
| --- | --- | --- |
| **Input** | **Work package {No.}** | **Output** |
| {What input is required? e.g. reference to other work packages or existing competencies at the institute or the Fraunhofer-Gesellschaft } | {Brief description of the work content, possibly listing subordinate activities} | Anticipated result(s), possibly with a reference to work packages required for the output |

etc.

### Milestones

Table 5 Milestone planning

|  |  |  |  |
| --- | --- | --- | --- |
| **Milestone No.** | **1** | **Date:** | **Month 12** |
| **Anticipated results** | **Decisions to be derived:** |
| {Indicate here which specific and measurable results must be available for this milestone} | {What decisions are derived from this? (e.g. project termination/continuation, modification of certain work elements, changes in scheduling, marketing measures, ...)} |

|  |  |  |  |
| --- | --- | --- | --- |
| **Milestone No.** | **2** | **Date:** | **Month 24** |
| **Anticipated results** | **Decisions to be derived:** |
| {…} | {…} |

|  |  |  |  |
| --- | --- | --- | --- |
| **Milestone No.** | **3** | **Date:** | **Month 36** |
| **Anticipated results** | **Decisions to be derived:** |
| {…} | {…} |

|  |  |  |  |
| --- | --- | --- | --- |
| **Milestone No.** | **4** | **Date:** | **Month 48** |
| **Anticipated results** | **Decisions to be derived:** |
| {…} | {…} |

|  |  |  |  |
| --- | --- | --- | --- |
| **Milestone No.** | **5** | **Date:** | **Month 60** |
| **Anticipated results** | **Decisions to be derived:** |
| {…} | {…} |

### Resource planning

{Provide an outline of the personnel required for the various work packages here}

Table 6 Resource planning: Person-months per work package

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Group leader** | **Postdoc** | **Doctoral student 1** | **Doctoral student 2** | **{…}** |
| Work package 1 | {X} | {X} | {X} | {X} | {X} |
| Work package 2 | {X} | {X} | {X} | {X} | {X} |
| … | {X} | {X} | {X} | {X} | {X} |
| **Total number of person-months** | {X} | {X} | {X} | {X} | {X} |

## Cost projection

Table 7 Cost projection (according to » 6.4 SIGMA calculation«)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **{Year XXXX}** | **{Year XXXX}** | **{Year XXXX}** | **{Year XXXX}** | **{Year XXXX}** | **Sum applied for** |
| Personnel |  |  |  |  |  |  |
| Material costs |  |  |  |  |  |  |
| Investment |  |  |  |  |  |  |
| **Total funding applied for** |  |  |  |  |  |  |

{Please specify funding amounts without depreciation. In the event of a successful application, the annual budget may only be changed in justified exceptional cases. A rationale must be provided for External services, e.g. »Fremdleistungen«.}

Project number of SIGMA calculation: XXX XXX

Start date: XX.XX.XXX

{Indicate here the most realistic start date for the project. Note that if the application is successful, the project should start as applied for. Funding always begins when the Attract group leader joins the institute.}

# Personal details

## CV of the external applicant including list of publications

## Letter of recommendation

{A letter of support from the Institute Director must be enclosed with the application. Applicants are welcome to include this as a cover letter at the beginning of the application. Submission of other informative letters of recommendation and/or LoIs is optional.}

# Appendix

## Glossary

{Please do not provide a list of abbreviations but a generally comprehensible explanation of technical terms.}

## Literature

## Patents

## SIGMA calculation

{On application, a SIGMA calculation must be prepared by the institute administration (the SIGMA calculation must correspond to the cost projection under point 4.2 ).

Please refer to chapter 5 »Finance« in the funding guide.}