IFD GS 2022 – Proposal guide

What does IFD want?

IFD invests in ambitious innovation projects with excellent science and strategic research that contributes to create new and tangible solutions to important societal challenges and creates value for Denmark.

The FORSK2025 catalogue, see forsk2025.pdf (ufm.dk) is the basis and guide for all of the thematic calls as well as IFDs Investment Strategies (one for each thematic call), see Grand Solutions | Innovationsfonden

What should you think of before applying?

- **Setting the right team - select**
  - ✓ Those who are EAGER for the project,
  - ✓ Those who UNDERSTAND the cooperation/the different roles in a IFD project
  - ✓ Those who have the BIGGEST change of success
  - ✓ Those who understand the DISTRIBUTION of roles in the partnership
  - ✓ Those who have the POWER
  - ✓ Those who can IMPLEMENT
- **Role of non-academia partners**
- **Value creation**

Guidelines from E-grant

Grand Solutions projects typically involve a combination of bridging academic and industrial competences as well as partners from the public sector, and must always include a clear focus on creating value for Denmark. The application form should be filled in as part of a combined effort by all the project partners.

In addition to filling in the application form a budget (xlsx) and the following appendices (as pdf) must also be uploaded (templates can be downloaded in E-grant):

- **Appendix B** - Partner motivation: Describe each partner's key competences and motivation in relation to the project activities.
- **Appendix C** - Key persons: Describe the key individuals in the project and include CV's for key persons.
- **Appendix D** – Gantt chart: Gantt chart showing the timing of the different work packages.

The following additional appendices may be attached, if deemed relevant

- **Appendix A**: Figures, pictures, tables. Maximum eight pages.

When filling in the application form you are encouraged to keep your text as short and concise as possible, avoid any redundant text and avoid not to consider the character (with spacing and line break) limit as a target. The reviewers rarely view unnecessarily long proposals in a positive light.

For further description, please refer to the Guidelines for Grand Solutions (scroll down to see guidelines and general terms).
If you have questions concerning Grand Solutions projects, don't hesitate to contact Innovation Fund Denmark (IFD) - find employees contact information at Innovation Fund Denmark's website.

Instructions from the template	Guidance from the Research Support Office
E-grant section: Applicant information	
• **Summary** Please summarize your project proposal covering Quality of the research and innovation, Value creation, Efficiency of project execution and Implementation of results. Max. 1500 characters.	The purpose of this section is to give the reviewer a short overview of the project incl. its specific aim/s, unmet need, expected impact What is "exceptional" about this project, particular qualities in terms of eg. how it solves a scientific, social, technical problem/issue. Focus on unique selling points. The execution eg. collaboration between academia and industry. Who are your end-users? Are they ready to receive your results? What is the impact of the successful completion of the project in terms of science and society and how will the outcome be implemented?
E-grant section: Project decription	
Quality of the idea	
• **Aim** - Describe the goals and list the objectives for the project, which should be specific, measurable, achievable, realistic and time-bound. Max. 2000 characters.	The What: The purpose of this section is to clearly state the specific aim and objectives of the project – eg. to solve a problem/need for a specific group/population with a technology, a tool, a learning model or a test. Your objectives must be clear, measurable, quantifiable, ambitious but realistic and achievable within the duration of the project.
• **State-of-the-art** - Describe the present state-of-the-art of the academic and industrial fields at a national and international level. Be aware of related fields, which can be both of inspiration and in competition. - Also, describe why this project will succeed in comparison with relevant work of others and the present state-of-the-art.	The purpose of this section is to clearly describe the field of your project on both national and international level. Show that you are fully aware of what is going on in your field at international level. Refer (generously) to relevant studies/experiments/works in the field. Then point to the gaps in our knowledge. How has the field/industry/society developed, who is the forefront/leaders in this particular field (if not yourself) and has the field/industry/society developed in the direction that will match your project. Emphazise the novelty and approach of this project to argue why this project will succeed.

Max. 5000 characters	
• **Competitors** - Name the most relevant academic and industrial competitors, with respect to e.g., technology or service development and/or market application. - Also, describe how the competitors, to the best of your knowledge, are currently trying to solve the unmet need. Max. 2000 characters	The purpose of this section is to give the reviewer the impression that you know your competitiors – not only your scientific "competitiors" (science groups) but also any commercial competitors you may foresee for the outcome of your project. Have in mind that your competitors potentially also can be your collaborators at the end of the day, bringing your "product" to the market. Look at competitors on a global scale if your product is intended for distribution abroad. Introducing your "product" only on the Danish market will - from the investors point of view - not necessarily provide sufficient return on the investment. Knowledge of any other solutions, that might compete with your solutions (also understood in a broader sence). Status of these solutions. Don´t be afraid to name your competitors. Show how you differ from your competitors. Preferably this section is written by the relevant company/companies. Their contribution in the writing process shows their commitment! If your project has a more societal focus rely on your external collaborators (public institutions, organisations etc.).
E-grant section: Impact	
• **Unmet need** Explain the unmet need the project will address, **or** the business opportunity to be taken advantage of. Also, state the national and international magnitude of the unmet need. Max. 5000 characters	The Why: The purpose of this section is to describe the end-users who your project will address. Why do they need your solution? How will they benefit from your solution and what will the outcome be? Why has the problem/need not yet been solved/offered and how/why it can be solved/offered through your project. Are you familiar with any prior solutions / attemps to solve the need.
• Societal and/or economic impact Describe the estimated and expected economic and/or societal impact of the project in terms of quantitative and/or qualitative measures, based on expected	Impact: the purpose of this section is to show/describe the potential positive effect/changes/footprint your project will have on society/economy/stakeholders. Many projects are rejected based on poor (description of) impact and value creation and lack of quantifiable goals.

launch or implementation into the society. Describe how this happens over time. - <u>Definition:</u> *Economic impact:* positive effect on growth and employment – e.g. strengthened competitiveness nationally and internationally, increased earnings and production, cost savings, process optimization and efficiency in the private or public sector. *Societal impact*: positive effect on Danish societal challenges e.g. climate change, CO2 emissions, biodiversity, health & well-fare, etc. Max. 5000 characters	Use **estimates** to show your potential impact but be realistic. When writing the impact section remember: ✓ **Quantitative measures** – it is okay to also include qualitative measures), but know that IFD is looking for quantitative measure to understand the impact. ✓ Value can be more than direct monetary value (sales, profit or export, more jobs) ✓ Less environmental footprint ✓ More healthy lives ✓ Reduced ressources ✓ Etc. • The following examples could contribute to impact (remember to quantify): New products • New manufacturing processes • New methods/processes • New services • New technological platforms • A new combination of technologies • Use of data • Prevention in health care • Reduction of environmental impact (reduction in CO2 emission, sustainability, biodiversity) • Better exploitation of living resources • New business models • New energy saving solutions • Better solution in public institutions • Increase in jobs in DK • Changes in behavior (patient compliance in healthcare, consumer behavior) Note that impact and value creation resulting from the project and the innovation can also be more broadly described in the form of eg. domestic or export revenue, new permanent jobs, reduced cost for society, reduced resources, improved quality of life, fewer admissions to the hospital, less leave of sickness, etc. Broader impact of your project and value creation can make spillover effects or impact on other areas.
• **Progress towards implementation**	The purpose of this section is to to connect "value creation" to "implementation", and to make sure, that the consortium partners can/have the interest to implement the expected values created.

Describe the project position in the value chain and the progression towards implementation at project recipients or further investment. Max. 5000 characters	Key points to remember: ✓ Your end-users ✓ Think through the whole value chain ✓ Be quantitative and try to end up in monetary value (expected value creation shows return of investment). ✓ **Always quantify** into money regardless of type of expected value. ✓ Describe where in the value chain the project is situated.
• **Plan for implementation** - Describe the associated implementation plan, business- or sales model. - Explain how the investment turns into added value for the project partners. Max. 5000 characters	The purpose of this section is to explain how the results of the project are implemented eg. how and when it is brought to market or how the project results are implemented into the society. Can your results be directly implemented e.g. a test for school kids, "green" technology, attraction of tourists etc. or will it need further "maturation" in the hands of a larger company e.g. diagnostic test, a new device or a new drug. Are there any specific models (including business models) to be used when the implementation of your project will take place? Can it be directly implemented or will it need external collaborators/vendors e.g. sales channels? Please refer to the project's position in the value chain and expected timeline. If the project is close to implementation, the timeline, business model and go-to-market strategy should be more concrete and specific. If the project is positioned earlier in the value chain, e.g. a strategic research project, the path and timeline to implementiation can be more sketched.
• **Intellectual property rights (IPR)** - Investigate the existence of prior-art (by e.g. a patent search) which could prevent the realization of the estimated value creation. - Also, describe the patenting potential of expected foreground knowledge within the project. Max. 2000 characters	The purpose of this section is to describe if and how the project results should/could be protected. Can the outcome of your project be protected by patent(s), trademark(s), copyright(s) or other means to protect the value of your project. If you already have submitted a patent application your patent lawyer may be able to assist you in the "Freedom to Operate Analysis" and also give you their opinion on potential IP issues in terms of restrictions on patent claims or opportunities for further claims. Specify "freedom to operate" to secure, that we do not end up working for a foreign partner. Will there be any foreground/background information that will need to be taken care of before submitting the application/before the project starts? This is relevant when commercial partners are involved in the project.

	Always contact the Technology Transfer Office at AU (www.au.dk/tto) or consult the Patent and Trademark Office (www.dkpto.dk). If partners require NDA's, also contact Technology Transfer Office at AU (www.au.dk/tto).
• **Technology Readiness Level (TRL)** Describe the project's TRL and please provide explanations for how/why the project progresses from e.g. level 4 (technology validated in lab) to 8 (system complete and qualified). (Link to TRL description) Definition: TRL: TRL is a type of measurement system used to assess the maturity level of a particular technology. TRL 1 is the lowest and TRL 9 is the highest. Max. 2000 characters	TRL is a measuring system used to estimate the maturity level of a particular technology. The scale ranks 1 (lowest) to 9 (highest). You can find the scale and definitions for each level in the link: Link to TRL description) Note: A good project does not necessarily involve TRL/SRL on level 9. The important thing is to accurately describe the best plan for transition. The lower the level, the better the plan for transition must be.
• **Societal Readiness Levels (SRL)** Describe the project's SRL and please provide explanations for how/why the project progresses from e.g. level 1 (identifying problem and identifying societal readiness) to 6 (solution demonstrated in relevant environment). (Link to SRL description) Definition: SRL: SRL is a way of assessing the level of societal adoption of, for instance, a particular social project, a technology, a product, a process, an intervention or an innovation (whether social or technical) to be integrated into society. Max. 2000 characters	SRL is used to estimate the social adaption, meaning whether a project/technology/process/product/innovation/etc. is ready to be integrated into society. The scale ranks 1 (lowest) to 9 (highest). You can find the scale and definitions for each level in the link: Link to SRL description

• **Strategic relevance** - Explain how this project specifically will fit into the partners or beneficiaries strategic and/or political roadmap. - Also, describe the strategic relevance of the project from a Danish perspective. This may include a description of how the Danish scientific, technical, industrial or social positions are strengthened. Max. 5000 characters.	The purpose of this section is to show how the project is aligned with the strategic goals of the partners and society at large. t In this section, you should also make the connection between the competitors, the unmet need and highlight the fact that your project is the best solution to the problem. Use concrete numbers if possible but remember the overall picture. The Danish perspective may be particular important if you have international partners in the project. How will their participation strengthen the Danish positions. Where relevant, refer to the investment strategies from the foundation, Danish Clusters,, FORSK2025 and/or UN Sustainable Development Goals and other relevant strategies (e.g. EU strategies).
• **Internationalization** - Explain the potential to use the outcome of the project beyond the scope of focus/cases in the project in Denmark and/or internationally. - Also, provide a clear plan for ensuring scalability. Max. 2000 characters.	The purpose of this section is to describe what happens with IFD´s investment after the project period runs out in Denmark and/or internationally. Are the involved companies equipped to take the project further? If not, who will do that? How will the end-users take up the results. Connects to the section on value creation and implementation. What will it take to continue the work towards implementation (time, ressources, knowledge)? Make sure to describe the plan for ensuring scalability as this is highly prioritized by the Innovation Fund Denmark
E-grant section: Quaility of execution	
• **Overall work plan** - Describe your project in terms of specific scientific, technological or other innovative methods applied within the project. This may include reasons for choosing specific technical methods, instruments, project organization, workflows, etc. - Explain any critical paths, including important WP dependencies. Stop/Go decision points and	The purpose of this section is to describe your project more specifically as well as the methods AND your workplan with well-defined work packages, tasks, deliverables, and milestones (see definitions in appendix d). - Decription of your project and methods - Structure this section in accordance with your previously described aim/s and objective/s. - Describe your concepts and/or conceptual models on which your project is based. - Describe your theoretical models/approaches if relevant (particular for SSH).

milestones may be used for that purpose. - Describe the resources to be allocated to each work package distributed on each project partner. - Please also provide an outline of the overall structure of the work plan. Details about each individual work package in the work plan are provided in the detailed "activity plan" section. Show the timing of the different WPs and their components using the IFD Gantt chart template. Upload the document under the "Attach appendices" section. Max. 25000 characters.	- Describe your methods. - Figures/tables are recommended but make sure they have a professional layout. - Be careful not to repeat from the state-of-the-art section. Description of your workplan - Your deliverables/milestones must be clearly defined. They will be used as check points for the succesfull progress of the project and the project team can use the milestones achievements or the opposite for internal decision making and possible corrective measures to be implemented. - Stop and go decisions may explicitly be defined and described. - Define milestones as success criteria and quantify: When is a certain task successful? This overall work plan needs to be reflected in the mandatory gantt chart appendix d (excel-sheet).
• **Risk mitigations** - Describe how the risks of the project are defined and managed. - Identify, assess and prioritize the most important risks in the project and describe their consequence, likelihood of occurrence and mitigation with reference to the listed milestones in the work plan. Please note that risks can consist of both internal and external factors. Max. 2000 characters.	The purpose of this section is to consider both internal and external risks related to the project – can e.g. be technical (achievement of milestone(s), the consortium (if someone leave) or if competing solution(s) are brought to the market. Try to prioritize the risks associated with your project and only include actual risks. Risks can be both conceptual and operational. Generate a mitigation plan/suggestions for every risk identified. Don't be afraid to mention the risks. They become a bigger problem if you try to silence them!
• **Link between project plan and budget** - When relevant describe any budget posts that may seem extraordinaire. It can for instance be relevant if you plan to purchase any expensive equipment or in other ways when you find it relevant to explain budget posts. Max. 2000 characters.	The purpose for this section is to describe any budget posts that are out of the ordinary – so any purchase of eqipments, materials etc. or external services such as consultancy support, contract based research, data or services purchased from external suppliers. In short anyting that can make the IFD question the expense.

• **Governance** - Briefly describe the proposed governance model and how the project will be lead and managed. - Explain how the organizational structure and decision-making mechanisms match the complexity and scale of the project. It is required to have a steering committee with authoritative representatives from the various partners including project beneficiaries. - Describe the leadership qualifications of the proposed project leader. - Explain how the project team will match the project's objectives, and bring together the necessary expertise. How do the team members complement one another, and cover the value chain? Max. 2000 characters.	The purpose of this section is to describe the roles and tasks of the project leader, the Steering Committee and the Advisory Board, if relevant. How and who make the decisions? The project leader must document skills in leadership and handling multiple stakeholders. Therefore, consider whether the project leader has sufficient skills/time to run the project. Remember that the project leader and main applicant can be two different persons! **Discuss whether the end-user in the project consortium is relevant as project coordinator or chair the steering committee** The Steering Committee should consist of key people with decision-making authority from each partner. However, it is important that they are not involved in the day-to-day work. Discuss the complementarity of the project team and its expertise. Remember to consult the IFD Guide line for proper governance of IFD projects. Add organigrams, if relevant as appendix.
• **Legal, ethical or regulatory demands** - Describe any legal, ethical or regulatory demands or conditions, the project might encounter or comply with. - Also, describe if any change in these demands or conditions might influence the outcome of the project. Max. 2000 characters.	Are there any legal issues eg. patent issues? Also consider GDPR If you are performing clinical trials you will need to fulfil regulatory requirements and obtain ethical approval
• **Financial gearing** - Describe how your project has attracted, and will attract, other financing than specified in the budget for the project. See section Budget. - State how much e.g. industries, public or private funds or others	The purpose of this section is to describe how further investments are anticipated in the future/during, and after the end of the project. Focus must be **on future investments.** Show prior investments in the result, that the proposal is based on. What have been invested from e.g. fundamental research

have already invested in the form of e.g. cash, in-kind payment, instruments, knowledge or other resources in support of the execution of the project. - List any known (private) parties outside the project group which will provide funding support during the execution of the project. - Describe how the Innovation Fund Denmark's investment in the project can attract or initiate funding from other sources. Please note, that co-financing should be supplied in the budget section. Max. 2000 characters.	grant (in a direct line) or/and from company-partners, and is the knowledge fundament for this proposal. Do NOT include investments in e.g. labs, buildings, prior research not in a direct line towards the proposal or other indirect earlier investments.