

Proposal Preparation Guidelines

3.1. Introduction

Discussions with BIRD staff, visits by BIRD representatives to either or both companies, joint submission of the Executive Summary of Project Proposal by the two companies and a positive review of the Executive Summary by BIRD's staff all precede submission of a formal proposal. However, while impressions gained from these contacts are important, in the final analysis, the formal evaluations and decisions are based primarily on the formal proposal submitted by the two companies. The following guidelines for full-scale and mini-project proposals are to be strictly followed:

NOTE: BIRD's dealings with the companies are treated confidentially, including the evaluation of proposals for full-scale projects by the two outside organizations responsible for conducting such reviews (see Sections 5.2.2. and 5.2.3. for typical Confidential Disclosure Agreements).

3.2. Executive Summary of Project Proposal

Following preliminary discussions with BIRD staff regarding the suitability of the intended project, the companies will be requested to jointly complete and submit an "Executive Summary of Project Proposal". For either a full-scale project or a mini-project, the Executive Summary should comply with the following sections and include the information requested. It should not be longer than 5 pages. The Executive Summary needs to be submitted through [BIRD's Upload System](#) by the published deadline.

NOTE: By request, BIRD's staff will review a draft of the Executive Summary before it is signed by the authorized persons and officially submitted to the Foundation. This preliminary review will address only the adequacy of information and level of detail required in the Executive Summary, and not the compliance of the companies or project with BIRD's criteria

Executive Summary of BIRD Project Proposal
(Maximum 5 pages)

	Israeli Company	U.S. Company
Full company name (as appears on the Certificate of Incorporation)		
Company locations (headquarters and relevant division address, including full street address, state, city, zip code) – not only P.O. Box		
Company website	www.	www.
Year established		
Revenues: most recent fiscal year _____	\$ million	\$ million
Increase / (Decrease) over previous year	%	%
Number of employees		
Ownership (Public / Private)		
For private companies: comprehensive list of investors (may be sent to BIRD separately)		
Percentage ownership of the company by the other company		
Relationship of the companies – - Parent/Subsidiary - Common Ownership - No common relationship - Other		
Number of previous BIRD projects		

Israeli Company Registration Number	
U.S. Company DUNS Number	

Expected project title	
Estimated project budget	\$
Expected project duration	months

- 1. Abstract:** A summary, **no more than 20 lines**, describing the essence of the project and its expected outcome. The abstract should be self-explanatory to someone who has no previous knowledge in the field.
- 2. Company Background:** Describe the major technical, marketing and financial assets and strong-points of each one of the two companies that are relevant to the successful completion of the proposed development project, and to its successful commercialization. Describe the characteristics and qualities possessed by each company that would make it a good strategic partner to the other company.
- 3. The Innovation:** Provide a concise description of the product / technology to be developed within the project, including its uniqueness, its innovation, and how it will satisfy market needs that are not met today.
- 4. Collaborative Relationship:** Describe the anticipated role of each company during the development project and during product commercialization. Indicate approximately how the development budget will be split between the two companies, and from where the non-BIRD portion of the project expenses will be obtained. Describe the expected basis and arrangement between the two companies regarding sharing of profits and other benefits during commercialization.

5. **Commercial Potential:** State the estimated relevant market size for the developed product, and the expected market share after 1-3 years of commercialization. (Please indicate the sources employed in deriving this forecast.) Estimate the volume and the total \$ value of direct sales revenue expected to result from the developed products over each one of the first 3 years of commercialization.

Calendar year:	20xx	20xx	20xx
Target market size for developed product (M\$):			
Estimated market share (%):	-	-	-
Estimated sales quantity (units):	-	-	-
Estimated representative unit price (\$/unit):			
Estimated sales revenue (K\$):			
Estimated cumulative sales revenue (K\$):	0	0	0

Authorized Company Officials:

Israeli Company

U.S. Company

Signature: _____

Typed Name: _____

Typed Title: _____

Date: _____

Tel. no.: _____

Typed Email address: _____

Cell phone no.: _____

Contact Person Details:

Signature

Typed Name: _____

Typed Title: _____

Tel. no.: _____

Typed Email address: _____

Cell phone no.: _____

Signatures above do not constitute a legal commitment on the part of either party to undertake the project herein described. Such commitment, if made, will be subject to a separate agreement.

3.3. The Project Proposal

Following meetings with BIRD staff in which the proposed program is discussed and after an Executive Summary of Project Proposal receives a positive recommendation by BIRD staff, the applying companies should jointly submit their Project Proposal, according to the guidelines detailed in this Section.

Experts from the Israel Innovation Authority (IIA) and from the U.S. National Institute of Standards and Technology (NIST), who are contracted to evaluate full-scale project proposals, review the soundness of the technical approach, the quality of effort that will be applied, the business/marketing opportunities and the quality of the document. In addition, proposals submitted to the BIRD Energy program will be reviewed by experts designated by the United States Department of Energy (DOE) and by the Israel Ministry of Energy. Proposals submitted to the BIRD HLS program will be reviewed also by experts designated by the U.S. Department of Homeland Security (DHS).

NOTE: The companies may submit a draft Proposal, prior to the submission of the final Proposal, to be reviewed by BIRD staff. The purpose of BIRD's review is to ensure that the proposal is sufficiently detailed to enable the outside reviewers to perform a meaningful and critical evaluation of the proposed program. This "internal" review process will be carried out promptly only if the companies submit the draft Proposal by a specified deadline, which is typically about a week before the final submission deadline.

There are three major parts to the proposal:

1. Product description and the innovation in the product (see Section D).
2. Description of project execution and the cooperation between the companies – proposed approach – (tasks and milestones, see Section E); program plan (see Section F); cooperation between the companies (see Section I); project organization and management (see Section J); the companies and their resources (see Section K) and the project budget for each company (see Section L).
3. The marketing and commercialization plan and prospects (see Sections G and H).

The following is a detailed description of the required contents of each section.

BIRD expects the applicants to fully comply with the instructions, including provision of all the information requested, full compliance with the template and format, with section numbering/designation and section captions/titles.

Please note:

The font in the document should be not smaller than size 11 (Arial or Calibri or similar.)

The size of the uploaded documents should not exceed 15 MB.

A. Cover Page

**ALL THE REQUESTED INFORMATION IS MANDATORY.
DO NOT MAKE ANY CHANGES TO THE FORMAT.**

To: Israel-U.S. Binational Industrial Research and Development Foundation

From: Israeli Company (as appears in the Certificate of Incorporation):

Office Address - _____ Mailing Address - _____

Main Telephone No. _____ Fax No. _____

From: U.S. Company (as appears in the Certificate of Incorporation):

Office Address - _____ Mailing Address - _____

Main Telephone No. _____ Fax No. _____

Project Title: _____

Project Duration: _____ months **Project Budget:** \$ _____⁽¹⁾

	Israeli Company	U.S. Company
Submitted by:	Authorized Company Official	Authorized Company Official
Signature:	_____	_____
Printed Name:	_____	_____
Title:	_____	_____
E-mail:	_____	_____
Date Submitted:	_____	_____

⁽¹⁾ Project Budget – must be the same as the sum of the companies' budgets
Preferred date (month / year) for start of project funding ⁽²⁾ _____ Can only
 be 1st day of the month
⁽²⁾ Do not request a start date prior to the date of the final proposal submission.

B. Table of Contents (including page numbers).

The section numbering must be adhered to.

C. Executive Summary

Please insert here the complete Executive Summary of the Project Proposal you submitted previously, as described in Section 3.2. above. (There is no need to include the signatures of the authorized company officials here).

NOTE: *If the Executive Summary previously submitted contains information which has been updated, please revise it accordingly.*

Executive Summary of BIRD Project Proposal

(Maximum 5 pages)

	Israeli Company	U.S. Company
Full company name (as appears on the Certificate of Incorporation)		
Company locations (headquarters and relevant division address, including full street address, state, city, zip code) – not only P.O. Box		
Company website	www.	www.
Year established		
Revenues: most recent fiscal year _____	\$ million	\$ million
Increase / (Decrease) over previous year	%	%
Number of employees		
Ownership (Public / Private)		
For private companies: comprehensive list of investors (may be sent to BIRD separately)		
Percentage ownership of the company by the other company		
Relationship of the companies – - Parent/Subsidiary - Common Ownership - No common relationship - Other		
Number of previous BIRD projects		

Israeli Company Registration Number	
U.S. Company DUNS Number	

Expected project title	
Estimated project budget	\$
Expected project duration	months

6. **Abstract:** A summary, **no more than 20 lines**, describing the essence of the project and its expected outcome. The abstract should be self-explanatory to someone who has no previous knowledge in the field.
7. **Company Background:** Describe the major technical, marketing and financial assets and strong-points of each one of the two companies that are relevant to the successful completion of the proposed development project, and to its successful commercialization. Describe the characteristics and qualities possessed by each company that would make it a good strategic partner to the other company.
8. **The Innovation:** Provide a concise description of the product / technology to be developed within the project, including its uniqueness, its innovation, and how it will satisfy market needs that are not met today.
9. **Collaborative Relationship:** Describe the anticipated role of each company during the development project and during product commercialization. Indicate approximately how the development budget will be split between the two companies, and from where the non-BIRD portion of the project expenses will be obtained. Describe the expected basis and arrangement between the two companies regarding sharing of profits and other benefits during commercialization.
10. **Commercial Potential:** State the estimated relevant market size for the developed product, and the expected market share after 1-3 years of commercialization. (Please indicate the sources employed in deriving this forecast.) Estimate the volume and the total \$ value of direct sales revenue expected to result from the developed products over each one of the first 3 years of commercialization.

Calendar year:	20xx	20xx	20xx
Target market size for developed product (M\$):			
Estimated market share (%):	-	-	-
Estimated sales quantity (units):	-	-	-
Estimated representative unit price (\$/unit):			
Estimated sales revenue (K\$):			
Estimated cumulative sales revenue (K\$):	0	0	0

D. The Innovation

This section should address the following:

How are things done in this area today? What is the current state-of-the-art for the target markets?

1. What are the limitations of the current technologies in the market? This is your opportunity to elaborate on the shortcomings that exist in the proposed product area as a prelude to the description of the innovation and how it overcomes these shortcomings. Current limitations could include: high cost, non-optimal performance, lack of attention to specific market segments, i.e., poor suitability to high- or low-end markets, size, compatibility, nonconformance to standards, etc.
2. What is the product concept? Sketches, diagrams and tables should be included to help describe the innovation. This description should clearly identify in which way the innovation overcomes current limitations.
3. Is this a unique product? Why do you believe it will be successful? How will the product differ from those on the market today?
4. What is the patent situation, including background patents and the potential for new patents?
5. Which regulatory and technical standards are relevant to the developed product? Will the proposed product meet current and/or emerging standards?
6. Are there any obligations to other government agencies (such as the Israel Innovation Authority, the NIH or the NIST), which have supported any part of the innovation development thus far?

E. Proposed R&D Program

This section of the proposal is to be organized in three parts: "Analysis of the Problem", "Proposed Approach" and "Analysis of the Project's TRL":

E.1. Analysis of the Problem

The purpose of this section is to establish a credible basis for the proposed program, with the intent of identifying specific problem areas. These are the problems or difficulties which need to be solved/overcome in order to achieve the program objectives. For example, at the start of the BIRD project, the companies are at Position A, which relates to the current limitations previously highlighted in Section D1 of the Proposal. By the end of the project, at the point of commercial readiness, the companies expect to be at Position B. What specific problems must be solved or overcome in order for the companies to reach Position B, consistent with the project budget and timetable? Clearly, these problems and their resolutions should be considered by the companies in formulating their Proposed Approach and in defining the Program Plan.

The problems may focus on a variety of technical issues: In some cases, the problems may relate to the need for fundamental technological breakthroughs in order to develop a currently non-existing product. In others, the technological problems may be relatively straightforward, with key issues relating to product integration into an existing line or management of a complex, inter-disciplinary, multi-task project. Items to be addressed in this section include:

1. Definition of the required properties and functions of the end-product that will be used in the market environment. Often, this is referred to as the "spec. sheet". This is the Position B referred to

previously in this section. What market input has contributed to formulating the end-product characteristics?

2. Identification and description of the challenges associated with realizing the required properties and functions. This is an in-depth discussion of the technological issues that must be addressed in order to achieve the program's objectives. The companies should indicate here the technological resources they have at their disposal to accomplish this.

E.2. Proposed Approach

1. A general plan of the proposed effort, setting the stage for the following, more detailed task descriptions. This overall plan includes the milestones that need to be reached and the deliverables that have to be presented in order to realize the program's objectives; in other words, "what has to be done". These should be straightforward descriptions, with no discussions as yet, of how you anticipate tackling the problems in order to get from Position A to Position B.
2. Description of the techniques and methods to be used for developing the product. This should include relevant experience in developing similar products, to illustrate the existence of a valid experience base.
3. Any technical or economic constraints.
4. **Identification and detailed description of each task.** This is the heart of the technical part of the proposal, stating the objective and contents for each task, the resources required and the company (or consultant or subcontractor) with primary responsibility for the task.
 - a. Define **up to 25 specific and measurable tasks** to be carried out throughout the development phase of the project. Number and name each one of the tasks.

NOTES: (1) There must be **complete consistency** in the numbers, names, start date and finish date of the tasks listed here and those listed in the Program Plan (see Section F) and Project Budget of each company (see Section L), below.

(2) The defined tasks must be the same for both companies. Any specific task may be executed by one company, by the other or by both. Thus, exactly the same tasks will appear in the Excel budget workbook of the two companies (see Section L, ahead), but if one of the companies does not participate in the execution of a specific task, the company will not include any budget for that task.

- b. Describe, for each task, the specific approach that will be employed, i.e., how to get from Position A to Position B. Detail the specific techniques to be used to solve the previously identified problems. Thus, in this section, the companies demonstrate that not only are they aware of the state-of-the-art in their industry and the limitations of current practices (D.1.), but they also have an innovative idea (D.2.), understand the challenges associated with developing the idea to commercial readiness (E.1.) and know how to deal with the major obstacles. For each task, provide supporting information which justifies the specific approach, where appropriate.
- c. Since the final objective is a product or process, tasks addressed should include compliance to standards (or why the product will not comply with relevant standards), prototyping, regulatory approvals, beta testing, exhibitions, marketing activities, documentation, etc. For those tasks relating to "testing", for example, details should be given as to what is to be tested, how many tests are needed, test objectives, test methodology, expected results, etc., rather than writing "tests will be performed".
- d. Discuss alternate approaches to resolving problems and the basis for selecting the preferred solution. Even if a preferred solution has not yet been identified, the various alternatives should be reviewed, along with their pros and cons.

- e. For each task, describe which of the two companies will be responsible for its execution. If the companies will share responsibility for a particular task, include the approximate % of the overall responsibility assigned to each company.

Please use the following “**Detailed Task Description Form**” to complete the information required for each task in items a-e, above, following the line-by-line instructions below:

NOTE: Download from BIRD’s website the WORD file “BIRD proposal - tasks, milestones and deliverables definition forms.docx” <https://www.birdf.com/procedures-submission-forms/>, copy the table “Detailed Task Description Form” for each defined project task and paste it to Section E.2. of the Proposal, in numerical order of the tasks. Fill-out only the white cells.

Line 1:	Task # should be the same as in the Excel Budgets (Section L) of both Companies and as in the Program Plan (GANTT) (Section F).
Line 2:	Task name should be the same as in the Excel Budgets (Section L) of both Companies and as in the Program Plan (GANTT) (Section F). The name should not be longer than 40 characters.
Line 3:	Mark with an “x” which Company is taking part in the task. A company participating in a given task should have a budget for the task (Line 7, below).
Line 4:	Task duration should be the number of days between the start and end dates of the task and should be given in whole numbers. It should be the same as in the Excel Budgets (Section L) of both Companies and as in the Program Plan (GANTT) (Section F).
Line 5:	The start and end dates of the task should be given in a DD/MM/YY format and should be the same as in the Excel Budgets (Section L) of both Companies and as in the Program Plan (GANTT) (Section F).
Line 6:	Insert the name of the US and the IL Cos. (fill it out once for all task tables).
Line 7:	The task budgets for each Company should be extracted directly from the “Tasks Report” tab in the Excel Budget of each Co. and should be given in units of K\$.
Line 8:	Insert the % of the total task budget attributed to each Co. (derived from Line 7).
Line 9:	Describe the overall objective / goal of the task, in 1-3 sentences.
Line 10:	Provide a textual description (no size restriction) of the main task activities.
Line 11:	Insert the # of the milestone(s) that are to be reached in this task, as given in the “Milestones Table” of the Proposal.
Line 12:	Insert the # of the deliverable(s) that are to be provided in this task, as given in the “Deliverables Table” of the Proposal.

Detailed Task Description Form

1	Task #:				
2	Task name:				
3	Company taking part in task (mark with "x")	IL:	US:	Both:	
4	Task duration (days):				
5	Start date (DD/MM/YY):		End date (DD/MM/YY):		
6	Company name:	[IL]	[US]	Total	
7	Task budget (K\$):				
8	Task budget (% of total):	%	%	100%	
9	Objective of task:				
10	Task Description (no restriction on size)				
11	# of the Milestone(s) to be reached:				
12	# of the Deliverable(s) to be provided:				

5. **Setting Milestones** – Some of the tasks defined in item 4, above, should have **measurable milestones to reach**, as an indication of task completion. The following guidelines apply in setting the milestones:

- Each milestone must have a specific **target date** by which it is expected to be reached, preferably (but not compulsory) at the **end of a specific task**.
- The milestone description must relate to how it is going to be measured, so that both the Project managers and the BIRD staff can verify if it has been reached.
- At least 1 milestone should be defined to be reached within each Project segment.

Please use the following "**Milestones and Deliverables Form**" to complete the information required for each milestone, as listed in items a-c, above.

NOTE: Download from BIRD's website the WORD file "BIRD proposal - tasks, milestones and deliverables definition forms.docx" <https://www.birdf.com/procedures-submission-forms/>, copy the table "Milestones and Deliverables Form" and paste it to Section E.2. of the Proposal. Fill-out only the white cells.

Milestones and Deliverables Form

#	<u>Milestone</u> Definition / Description and How Will It be Measured	Milestone Date (MM/YY)
1		
2		
3		
4		
5		
#	<u>Deliverable</u> Definition & Description	Deliverable Date (MM/YY)
1		
2		
3		[end of project]

6. **Provision of Tangible Deliverables** - Some of the milestones defined in item 5, above, should have **tangible** deliverables to provide, as an indication of task, milestone or Project completion. The following guidelines apply in specifying the deliverables:
- a. Each deliverable must have a specific **target date** by which it is expected to be completed, preferably (but not compulsory) at the end of a specific task or milestone.
 - b. Each deliverable must include a physical hardware or software object / component / product with defined characteristics / specifications / features that can be measured and compared to a given planned target.
 - c. There must be **at least one** tangible deliverable **at the completion** of the Project.

Please use the form “**Milestones and Deliverables Form**” in section 5, above, to complete the information required for each deliverable listed in in items a-c, above, and paste it to Section E.2. of the Proposal. Fill-out only the white cells.

E.3 Analysis of the Project’s TRL

The purpose of this section is to establish the project’s Technology Readiness Level (TRL), **prior** to the project’s inception and **following** the project’s completion.

You are asked to review the **TRL table** (See below) and identify the project’s current TRL based on the definitions provided in this table and your acquaintance with the current status of the project. You are asked to substantiate this assertion with examples.

You are also asked to predict the project’s TRL following its completion and to justify this prediction based on the project’s goals and deliverables (as provided in section E.2), and the project’s plan (as provided in section F).

Use the following two templates to provide your analysis. Please provide the most relevant examples.

Identify Project’s TRL prior to the Project Inception	Examples substantiating the project’s TRL prior to Project Inception
(Provide here the current TRL)	(Free text explaining your choice)
	(Examples of achievements that were accomplished prior to the project’s inception that will support your choice) – Example 1
	(Examples of achievements that were accomplished prior to the project’s inception that will support your choice) – Example 2

Expected Project’s TRL by the Project Completion	Examples substantiating the project’s expected TRL by the Project’s Completion (based on the Goals and Deliverables provided in section E.2)
(Provide here the expected TRL)	(Free text explaining your prediction)
	(Example of Goals and Deliverables from Section E.2 that will support your prediction) – Example 1
	(Example of Goals and Deliverables from Section E.2 that will support your prediction) – Example 2

The following are the TRL definitions:

Relative Level of Technology Development	Technology Readiness Level	TRL Definition	Description
System Operations	TRL 9	The actual system operated over the full range of expected mission conditions.	The technology is in its final form and operated under the full range of operating mission conditions.
System Commissioning	TRL 8	Actual system completed and qualified through test and demonstration	The technology has been proven to work in its final form and under expected conditions. In almost all cases, this TRL represents the end of true system development. Examples include developmental testing and evaluation of the system. Supporting information includes operational procedures that are virtually complete. An Operational Readiness Review (ORR) has been successfully completed prior to the start of hot testing.
	TRL 7	Full-scale, similar (prototypical) system demonstrated in a relevant environment	This represents a major step up from TRL 6, requiring demonstration of an actual system prototype in a relevant environment. Examples include testing full-scale prototype in the field with a range of simulants. Supporting information includes results from the full-scale testing and analysis of the differences between the test environment, and analysis of what the experimental results mean for the eventual operating system/environment. Final design is virtually complete.
Technology Demonstration	TRL 6	Engineering/pilot-scale, similar (prototypical) system validation in a relevant environment	Engineering-scale models or prototypes are tested in a relevant environment. This represents a major step up in a technology's demonstrated readiness. Examples include testing an engineering scale prototypical system with a range of simulants. Supporting information includes results from the engineering scale testing and analysis of the differences between the engineering scale, prototypical system/environment, and analysis of what the experimental results mean for the eventual operating system/environment. TRL 6 begins true engineering development of the technology as an operational system. The major difference between TRL 5 and 6 is the step up from laboratory scale to engineering scale and the determination of scaling factors that will enable design of the operating system. The prototype should be capable of performing all the functions that will be required of the operational system. The operating environment for the testing should closely represent the actual operating environment.
Technology Development	TRL 5	Laboratory scale, similar system validation in a relevant environment	The basic technological components are integrated so that the system configuration is similar to (matches) the final application in almost all respects. Examples include testing a high-fidelity, laboratory scale system in a simulated environment. Supporting information includes results from the laboratory scale testing, analysis of the differences between the laboratory and eventual operating system/environment, and analysis of what the experimental results mean for the eventual operating system/environment. The major difference between TRL 4 and 5 is the increase in the fidelity of the system and environment to the actual application. The system tested is almost prototypical.

Technology Development	TRL 4	Component and/or system validation in a laboratory environment	The basic technological components are integrated to establish that the pieces will work together. This is relatively "low fidelity" compared with the eventual system. Examples include integration of ad hoc hardware in a laboratory and testing with a range of simulants and small scale tests. Supporting information includes the results of the integrated experiments and estimates of how the experimental components and experimental test results differ from the expected system performance goals. TRL 4-6 represent the bridge from scientific research to engineering. TRL 4 is the first step in determining whether the individual components will work together as a system. The laboratory system will probably be a mix of on hand equipment and a few special purpose components that may require special handling, calibration, or alignment to get them to function.
Research to Prove Feasibility	TRL 3	Analytical and experimental critical function and/or characteristic proof of concept	Active research and development (R&D) is initiated. This includes analytical studies and laboratory-scale studies to physically validate the analytical predictions of separate elements of the technology. Examples include components that are not yet integrated or representative tested with simulants. Supporting information includes results of laboratory tests performed to measure parameters of interest and comparison to analytical predictions for critical subsystems. At TRL 3 the work has moved beyond the paper phase to experimental work that verifies that the concept works as expected on simulants. Components of the technology are validated, but there is no attempt to integrate the components into a complete system. Modeling and simulation may be used to complement physical experiments.
	TRL 2	Technology concept and/or application formulated	Once basic principles are observed, practical applications can be invented. Applications are speculative, and there may be no proof or detailed analysis to support the assumptions. Examples are still limited to analytic studies. Supporting information includes publications or other references that outline the application being considered and that provide analysis to support the concept. The step up from TRL 1 to TRL 2 moves the ideas from pure to applied research. Most of the work is analytical or paper studies with the emphasis on understanding the science better. Experimental work is designed to corroborate the basic scientific observations made during TRL 1 work.
Basic Technology Research		TRL 1	Basic principles observed and reported

Source: U.S. Department of Energy guidelines (See <https://www2.lbl.gov/dir/assets/docs/TRL%20guide.pdf>).

F. Program Plan

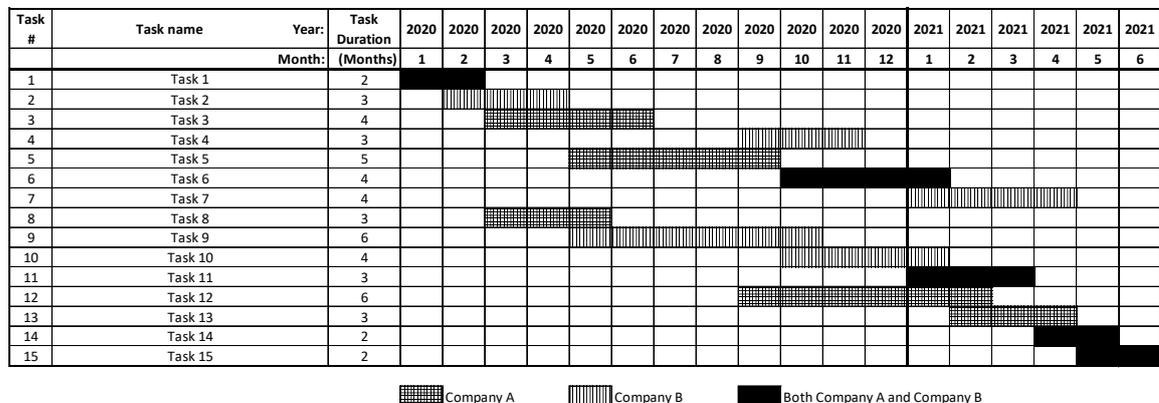
The Program Plan should consist of a **chronological schedule of program activities**, defined as detailed tasks and presented in **graphical form** (GANTT chart). The following guidelines should be followed in preparing the GANTT chart:

- a. The tasks in the GANTT chart **should coincide** with respect to assigned number, name, start date and finish date, both with those defined **in item 4 of Section E.2.** (above) and in the companies' **budgets** (section L, ahead).
- b. Since the defined tasks are the same for both companies, **a single** GANTT chart should be presented for both companies.
- c. The Program Plan (GANTT) should encompass **the entire duration** of the Project.
- d. The time axis of the GANTT chart should have a resolution **not less than quarters** but **not more than months**.

If the Program Plan comprises several pages, a one page **summary GANTT chart** should be the one included in this section. The GANTT should include the following information:

- a. The task number
- b. The task name
- c. The duration of the task (in months or days)
- d. The start and finish dates of the task (in graphical form)
- e. Task responsibility - for each task, show graphically which of the two companies will be responsible for its execution. Since both companies can share responsibility to execute the same task, show this graphically as well.

An example of a typical summary GANTT chart is illustrated below:



Should the project be approved, the summary GANTT representing the Program Plan will be incorporated into the **Cooperation and Project Funding Agreement (CPFA)** and will be used by the Foundation in monitoring project progress.

NOTE: The Program Plan (GANTT) should be one of the files to be uploaded to the BIRD website as a component of the Proposal.

G. The Market

Although we are aware of the uncertainties implicit in predictions of future markets and possible competition for any new product or process, we need to be convinced that the companies have made a

thorough analysis of the market and its current trends. Such an analysis will typically include the following considerations, which should be addressed in this section of the proposal:

1. Which market needs are served? Are either/both companies currently active in developing, manufacturing and selling similar types of products in this market? What is the basis for those market needs?
2. What performance features and selling price, and hence manufacturing cost, must be achieved to penetrate this market? Provide the basis for the manufacturing cost and enough information to enable the reviewers to determine the likelihood of achieving the target cost. How does this cost compare with those of other, similar products developed and sold by the companies? Identify any key aspects of the technical development which could adversely affect realization of the target manufacturing cost and describe the fallback options. If the product is part of a system not to be developed within the BIRD project, indicate the leverage afforded for sales of the overall system by the proposed product and include a comparison of the manufacturing cost of the proposed innovation to that of the entire commercial system.
3. What is the total currently available market for the product (in physical units and in US \$)? What is the current position (market share) of the companies in this market? What is the expected growth rate of this market over the effective sales window of the product being developed and what is the basis for this projection? What events could significantly alter this projection?
4. What market share is expected to be captured in the first year of market entry and over the product sales lifetime? How many units does this represent in each year of sales? What is the unit selling price (to third parties) of the product to be developed? How will the unit selling price change from the year of the product launch to subsequent years? A well-constructed series of tables is essential, providing a full breakdown and explanation for Line S (Product Sales) of the Cash Flow Analysis (see Section H.2. below).
5. Additional pertinent market information, such as product brochures, expressions of interest from potential customers in the products or processes to be developed, marketing agreements, etc., should be included.
6. What barriers, i.e., regulatory, might be encountered and how will they be overcome?
7. What competition exists or can be expected? Who are the companies, what are their products, performance and prices? Provide an evaluation of the impact of competition on the commercialization of the proposed product.

This is not a complete list. The companies should present whatever additional market information they consider relevant. The quantitative estimate of the above market size and share of the above revenue forecast should be summarized in the table below (identical to the updated Executive Summary chapter, above):

Calendar year:	20xx	20xx	20xx
Target market size for developed product (M\$):			
Estimated market share (%):	-	-	-
Estimated sales quantity (units):	-	-	-
Estimated representative unit price (\$/unit):			
Estimated sales revenue (K\$):			
Estimated cumulative sales revenue (K\$):	0	0	0

Mandatory input:
 Optional (but recommended) input:

H. Commercialization – Plans and Prospects

H.1. Product Manufacturing, Marketing, Sales Activities and Resources

In addition to a promising market potential, a solid commercialization program needs to be planned and implemented. Some of the questions to be discussed are:

1. Will both companies be engaged in production? What are the existing manufacturing facilities and how can the proposed product manufacturing be incorporated into the existing infrastructure? If product manufacturing is planned to be outsourced to subcontractors, which of the two companies will have the major responsibility for the product manufacturing function? List a few potential manufacturing subcontractors that could be outsourced.
2. Which of the companies will be responsible for marketing, sales and sales support of the developed product and in which market regions? What are the current sales activities of the companies in the primary target regions for the proposed product?
3. Do either or both companies currently have a suitable sales and service network? If there is such a network, it should be described. Alternatively, does such a network need to be created from scratch? If so, describe the process by which the companies plan to establish such a network and the resources required.
4. Considering the maximum cash requirements based on the cash flow analysis, to what extent are the necessary resources – financial or otherwise – available within the companies? If any additional resources will be required, how will they be mobilized? Describe all relevant potential sources.

H.2. Cash Flow Analysis

A preliminary financial analysis which indicates the potential economic gain from successful implementation of the proposed project should be made using the Cash Flow Analysis. For our purpose, we wish to know how the companies have analyzed the financial exposure and potential return that they expect from the proposed project. What are the estimated investment cash flow and the projected earnings cash flow? Can the companies reasonably cope with the peak and aggregate investments that commercial success will entail?

A cash flow analysis of the proposed project is required in order to generate from it 3 main economic indicators that are essential in assessing the economic viability of the project: The joint project's estimated Internal Rate of Return (IRR), Net Present Value (NPV) and Payback Period (PBP). Please include in your proposal both the cash flow analysis table (see below) and an analysis of the resulting values of the above three economic indicators.

Set out hereunder are step-by-step instructions on how to prepare the cash flow analysis, with reference to the accompanying chart, illustrating a sample project (see below):

NOTE: *The cash flow analysis is an Excel spreadsheet and can be downloaded from BIRD's website.*

The eight-year period used in the chart below is chosen to cover the development phase (1 to 3 years) and sales growth to a peak, followed by a drop in sales as the product becomes obsolete. It is important that the whole life-cycle of the product be considered, since the concept of liquidating the venture in the last year is used in calculating an Internal Rate of Return (IRR). Shortening of the period under review can lead to results which are quite misleading. However, a period of eight years should only be used if it is relevant for your particular case.

NOTE: *In the spreadsheet downloaded from BIRD's website, the mandatory input cells are highlighted in yellow. The cells highlighted in blue are input cells with default values which can be overridden.*

Cash Flow Analysis: Sample Calculation

No.	Cash-Flow component	Derivation	N = No. of Years							
			2004	2005	2006	2007	2008	2009	2010	2011
Y	Calendar year	1st Calendar Year	2004	2005	2006	2007	2008	2009	2010	2011
	Project year		1	2	3	4	5	6	7	8
Q	No. of units sold (Units)	estimate			6,000	7,000	9,000	10,000	8,000	5,000
P	Product Price (\$/unit)	estimate			1,000	950	900	900	800	800
S	Product Sales (K\$)	=QxP or estimate		0	6,000	6,650	8,100	9,000	6,400	4,000
M%	Manufacturing Cost (% of sales)	30%		30%	30%	30%	30%	30%	30%	30%
M	Manufacturing Cost (K\$)	=M% x S		0	1,800	1,995	2,430	2,700	1,920	1,200
O%	Operating Expenses (% of sales)	35%		35%	35%	35%	35%	35%	35%	35%
O	Operating Expenses (K\$)	=O% x S		0	2,100	2,328	2,835	3,150	2,240	1,400
D	Development Expenses (K\$)	estimate	700	900						
C	Capital Expenses (K\$)	estimate		700	300					
E	Depreciation (K\$)	linear over 5 yrs.	0	140	200	200	200	200	60	0
I	Before Tax Income/Loss (K\$)	=S-M-O-D-E	(700)	(1,040)	1,900	2,128	2,635	2,950	2,180	1,400
T1	Cumulative Losses carried over (K\$)		(700)	(1,740)	0	0	0	0	0	0
T2	Taxable Income (K\$)		0	0	160	2,128	2,635	2,950	2,180	1,400
T%	Income Tax Rate (%)	32%	32%	32%	32%	32%	32%	32%	32%	32%
T	Income Tax (K\$)	=T% x T2	0	0	51	681	843	944	698	448
OF	Operating Cash Flow (K\$/Yr.)	=I+E-T	(700)	(900)	2,049	1,647	1,992	2,206	1,542	952
W%	Working Capital (% of sales change)	25%		25%	25%	25%	25%	25%	25%	25%
W	Working Capital Change (K\$)	=W% x (S _n -S _{n-1})		0	1,500	163	363	225	(650)	(600)
V	Residual Value of Assets		0	0	0	0	0	0	0	1,000
AF	Total Annual Cash Flow (K\$)	=OF-C-W+V	(700)	(1,600)	249	1,484	1,629	1,981	2,192	2,552
CF	Total Cumulative Cash Flow (K\$)		(700)	(2,300)	(2,051)	(567)	1,062	3,043	5,236	7,788
R	Annual Discount Rate (%)	15%								
DAF	Annual Discounted Cash Flow (K\$)		(609)	(1,210)	164	849	810	856	824	834
DCF	Cumulative Discounted Cash Flow (K\$)		(609)	(1,819)	(1,655)	(806)	4	860	1,684	2,519
IRR	Internal Rate of Return (%)	43%								

LINE Y: The calendar year corresponding to the first year of the project, which is the year in which the development will start under BIRD support.

LINE Q: Number of Units Sold – for each one of the years of commercial sales, enter an estimate of the number of units of products to be sold per year, using the expected market share and total available market over the product sales in life. (This should correspond with your estimate presented in Section F of the Proposal).

LINE P: Product Price – for each one of the years of commercial sales, enter the estimated product price, in \$/unit, giving expression to the change in price over the years as a result of changes in the market environment (optional). (This price profile should correspond with your estimate presented in Section F of the Proposal).

LINE S: Product Sales – if an estimate has been given for the sales quantity (Line Q), and of the sales price (Line P), then Line S is a computed line. Optionally, the annual product sales can be inputted directly, in K\$/Yr., by using either the value of new product or process substitution to prospective customers, the volume of similar products, or market share multiplied by market size. The estimate should be based on market study, research and experience. (This product sales projection should correspond with your estimate presented in Section F of the Proposal).

LINE M%: Manufacturing Cost – enter the estimated direct manufacturing cost of the product, as a % of the product sales (or of the sales price). It is usually between 30-50% and is estimated using either the cost of similar products (processes), the development costs multiplied by an experience-based markup factor, or a detailed breakdown and manufacturing plan. You can enter either a fixed percentage for all years (in the "derivation" column), or enter a specific percentage for each year, expressing changes in manufacturing efficiency or in costs of labor/material with the years (optional).

LINE O%: Operating Cost – enter the estimated operating cost of the product as a % of the product sales (or of the sales price). It is usually between 20-35% and is estimated using historical ratios or detailed operating plans for the product (process). Continuing R&D, selling costs, advertising, general and administrative expenses, etc., are typical elements. You can enter either a fixed percentage for all years (in the "derivation" column), or enter a specific percentage for each year, expressing changes in operating costs as volumes change with the years (optional).

LINE D: Development Expenses – include all development and start-up expenses for years 1-3 of the cash flow planning period (up to initial commercialization), in K\$/Yr. Estimates should be based either on a comparison with similar developments or on a detailed product (process) development plan.

NOTE: *The total project budget should be included here, not just the portion to be financed by the companies. Likewise, repayments to BIRD should be excluded from the cash flow analysis.*

LINE C: Capital Expenditures – include all investments in fixed capital, in K\$/Yr., required to provide for the manufacturing and logistic functions during commercialization, including buildings, manufacturing equipment, vehicles, warehouses, etc.

LINE E: Annual Depreciation – (A computed value, given in K\$/Yr.) Computed assuming straight line depreciation of all the capital investment (Line C) over a 5 year period. The depreciation is not a cash-flow component and is included only as an allowance for income tax calculations.

LINE I: Before Tax Income/Loss – (A computed value, given in K\$/Yr.) Equals Line S minus Line M minus Line O minus Line D minus Line E.

LINE T1: Cumulative losses carried over – (A computed value, given in K\$) Equals the cumulative annual before tax losses (Line I) net of the cumulative annual before tax income (Line I), as long as this computed value is negative.

LINE T2: Taxable Income – (A computed value, given in K\$/Yr.) Equals the annual before-tax income (Line I) net of any cumulative losses carry-over (Line T1) and serves as the basis for the calculated income (corporate) tax.

LINE T%: Income Tax Rate – enter the applicable income (corporate) tax rate, as a %. You can enter either a fixed percentage for all years (in the "derivation" column), or enter a specific percentage for each

year, expressing changes in income (corporate) tax rates due to changes in approved enterprise status, or other expected changes in government policy (optional).

NOTE: *The tax rate for the company expected to be responsible for actual product commercialization should be used. Where both companies are expected to have major responsibilities for product sales, a weighted average tax rate should be used, reflecting the tax rate of each company in proportion to the total sales expected for each company.*

LINE T: Income Tax – (A computed value, given in K\$/Yr.) Equals Line T2 multiplied by Line T%.

LINE OF: Operating Cash Flow – (A computed value, given in K\$/Yr.) Equals Line I minus Line T plus Line E.

LINE W%: Working Capital Rate – the estimated annual working capital required to fund inventories and receivables (net of payables), reflecting growing sales. It is estimated as a function of the volume of product sales and expressed as a percentage applied to the changes (increase or decrease) in product sales. The working capital rate is assumed constant throughout the planning horizon and is usually assumed between 25-35%. Use your experience as a base or a detailed plan for the product (process), including carrying times and costs.

LINE W: Changes in Working Capital – (A computed value, given in K\$) Equals the working capital rate (Line W%) multiplied by the difference between the current year's sales and the prior year's sales (year N minus year N-1 in Line S). Note that this line is zero if sales do not increase and it is negative when sales decline.

LINE V: Residual Value of Assets – (A computed value, given in K\$) This computed value is needed only for calculating the IRR (see below). It equals the cumulative capital expenses (Line C) minus the cumulative depreciation (Line E), plus the cumulative working capital change (Line W) over the whole lifetime of the project.

LINE AF: Total Annual Cash Flow – (A computed value, given in K\$/Yr.) Equals Line OF minus Line C minus Line W in all but the last year. In the last year, the same formula is used but Line V is added. This has the effect of liquidating the venture in the last year and selling off all the assets on the books.

LINE CF: Cumulative Cash Flow – equals the sum of Line AF cumulatively to date. In the early years of the project this will be negative. The year in which it becomes positive indicates the simple payback period (disregarding time-value of money), in years.

LINE R: Annual Discount Rate – Enter the annual discount rate (interest rate, or hurdle rate) by which annual cash flows will be discounted, as a %. The discount rate is used to calculate the discount factor, and it is usually between 10-25%, depending on the technological and marketing uncertainty inherent in the project (the venture's risk).

LINE DAF: Total Annual Discounted Cash Flow – (A computed value, given in K\$/YR.) Equals the total annual cash flow of Line AF multiplied by the discount factor, for each year (e.g., for a discount rate of 25%, Line AF in year 1 is multiplied by 0.80, Line AF in year 2 is multiplied by 0.64, Line AF in year 3 is multiplied by 0.51, etc.)

LINE DCF: Total Cumulative Discounted Cash Flow – (A computed value, given in K\$) Equals the cumulative value of Line DAF. The cumulative value at the end of the last year of the project (year 8 in the example) is known as the Net Present Value (NPV) of the project (\$2,519K in the example) at a given discount rate (15% in the example). The NPV is one of the economic parameters that has to be presented in assessing the economic viability of the proposed project.

The cumulative discounted cash flow will usually be negative in the first few years. The number of years in which the cumulative discounted cash flow (Line DCF) is negative (4 years in the example) is referred to as the Payback Period (PBP) and is also employed as an economic indicator of a project's risk.

LINE IRR: Internal Rate of Return (IRR) – (A computed value given as a %) is the discount rate at which the Net Present Value is equal to zero and is given in the "derivation" column (43% in the example). It is an economic indicator of the project's overall return on investment potential.

I. Cooperation, Economic and Social Benefits

I.1. Cooperation between the Companies

Previous sections dealt with the proposed division of tasks between the two companies. Please summarize here the projected mode and extent of cooperative activity.

The clear expectation of risk-sharing by both companies during the product development stage and during commercialization is central to BIRD participation. An important factor in evaluating the proposal, therefore, is the extent to which the companies will share in the financial exposure of product development and introduction to the marketplace.

Equally important is the expected benefit to be derived by each company during product commercialization. The general nature of the planned revenue and profit-sharing arrangement between the two companies from sales of the developed product should be presented.

Please elaborate on the agreed-upon roles and risk/profit-sharing business relationship issues in the context of the agreement between the two companies.

I.2. Economic Impact

An important factor is the benefit to Israel and the U.S. in the form of new export markets, new employment opportunities, new capital formation, productivity improvements, etc. Please elaborate on issues which are relevant to the project's economic outcome and impact.

I.3. Social Impact

Also of importance are the social contributions of the project.

Note: Social Impact is how organizations, businesses or individuals' actions affect the surrounding community and environment. A joint project may have its own social impact through the lifetime of the project and beyond.

Please elaborate on issues such as the expected environmental impact of the project (positive or negative), if the product will be sustainably consumed and/or produced, in fields such as, health and well-being, education, improved nutrition, sustainable agriculture/energy/industrialization/transportation/cities, improving the lives of disadvantaged people, supporting people with disabilities, will it be developed in the Israeli periphery or outside the main U.S. hitech hubs, etc.

Feel free to add any other issue/activity that implies on the project's social impact (positive or negative).

J. Organization and Management Plan

This section should contain a presentation of the proposed management procedures for the program, including the internal review procedures and overall management plan that will ensure, barring unforeseeable circumstances, implementation according to design specifications, on schedule and within budget.

1. Describe the procedures to be implemented to maintain timely communications between each company's project team. Indicate the role of review meetings (when, where, or what purpose, with whom) during the project.
2. Provide an organization chart for the project, identifying each company's project manager and the overall program manager and indicate the relationship of this ad hoc organization to the formal hierarchies in the companies. Identify the program's key project personnel and their responsibilities.

3. Regarding staff – indicate positions to be filled by new employees and identify the status of these staff.
4. Identify the role of key consultants and subcontractors on the organization chart and indicate if a relationship between the consultants/subcontractors and the companies currently exists. Resumes of key consultants should be included.
5. Attach short resumes (up to one page each) of key personnel who will work on the project. The resumes should include each individual's role in the project, i.e., project manager, senior software engineer, field engineer, etc. Include the person's current company affiliation, job title, relevant job experience and significant accomplishments, starting from the most current position. List professional affiliations and committee memberships. Indicate higher education and degrees and provide a listing of relevant publications authored or co-authored.

NOTE: *In the final analysis, the determining factors in the successful commercialization of innovations are the people and the companies involved. The reviewers of the proposal need to see that the experience, education and capabilities of the professional staff are commensurate with the R&D tasks to be performed.*

K. The Companies and Their Resources

Please provide information about each of the companies, including the following:

1. The year in which each company was established, company ownership and principal business of each company.
2. Record of performance in similar/related undertakings. Describe the extent to which products similar or related to the proposed innovation have been developed and commercialized by either company. Describe the track record or history of each company that also substantiates a positive prognosis for this proposed product's successful commercialization.
3. Degree to which the proposed project can be absorbed into the existing structure of each company. To what extent are the staff, equipment, facilities, etc., available for the project? Identify the need to hire staff, obtain (purchase, lease or rent) capital equipment, or expand manufacturing operations.
4. Description of previous projects for which either company received BIRD funding. Indicate the program scope, program duration and outcome in commercial terms, i.e., revenues from commercialization of the BIRD product and repayments to BIRD. Also indicate the future commercial potential of products previously developed in BIRD projects.
5. Relationship of the proposed project to other company projects that receive/have received support from any outside agency for development of the proposed product, such as the IIA, the NIH, the NIST, the DOE, DHS, MOPS and MNIEWR.
6. Financial information validating that the companies have the resources available not only for contributing their share of the project cost, but also to cover the commercialization phase. Public companies can submit annual and quarterly reports rather than specially prepared information. At a minimum, annual revenues expected during the current fiscal year and realized during each of the last two fiscal years should be given, in addition to an indication of the profitability of the company during this period.
7. Number of employees at the home country, at field locations and abroad should be given, along with an indication of changes in the employment picture during the past two years.
8. Description of relevant facilities, equipment, infrastructure, etc., which are expected to be utilized during the project and during product commercialization.

L. Project Budget

L.1. Introduction and General Guidelines

All development expenses directly associated with the project, to be incurred by each company throughout its entire development phase, should be included in the budget (and not only those expenses falling within the scope of work of the BIRD sponsored portion of the development). However, only those phases of the project up to, but not including, actual production and sales should be included in the budgets.

A separate budget should be presented for each company's activities and should cover the entire duration of the project, as proposed.

BIRD's funding of the project, if approved, begins from the effective date (start date) of the BIRD project, which can be no earlier than the first day of the month in which the final proposal is received at BIRD headquarters, signed by an authorized official of each company. Expenses incurred by the companies prior to the effective date (start date) cannot be recognized by BIRD.

Before starting the budget-building process, you should already have available:

- a. The definition of up to 15 major tasks (activities), including the number and name (short textual description) of each task. These tasks should completely coincide with the tasks defined and described in the section "Proposed R&D Program/Proposed Approach" (Section E.2), above.
- b. The start date and completion date of each task (in day/month/year format), or as a default, the duration (in days) of each task. The tasks should completely coincide with the GANTT chart presented in the section "Program Plan" (Section F), above.

L.2. Step by Step Explanation on Budget Preparation

In the proposal, each company should prepare its budget in detailed fashion, using the format on pages 26 to 27 for each specific "Task Budget" and the format of the "Total Budget" on pages 28 to 29 below, while referring to the instructions and explanations below.

NOTE: *The detailed budget components, the calculation of these components and the presentation of the budget in the format presented here have been incorporated in an Excel workbook. This workbook is available to the Proposer's (please download it from BIRD's website or ask BIRD staff to supply it to you by e-mail). It is essential that the budgets of each company be prepared and submitted to BIRD in the proposal using this workbook.*

1. Proceed to build your company's budget in the BIRD project using the Excel workbook. You can start the process with any of the tasks and in any order, by activating the corresponding worksheet labeled Task 1 through Task 15 (see pages 25 to 27 for the format of "Task Budget:"). You are asked **to relate only to the input data cells, colored yellow**.

NOTE: *Instructions and comments related to specific expense components and data items are given for items colored light green. You can read the comments by pointing to the specific cell. The instructions and comments are also given below.*

2. Whenever there is a need to define the name of a specific expense, such as the name and profession of a specific employee (in direct labor), the name and purchase cost of a specific equipment item, the name of a specific expendable material, etc., enter the definition in the appropriate location (always in a yellow-colored cell) of the "Total Budget" worksheet. The information you enter in the "Total Budget" worksheet will be copied to and will appear in all the Task worksheets.

NOTE: *If the formats of specific input cells do not provide you enough space to insert a meaningful description of the expense items, please attach an appendix to the budget form containing the referenced full-length description of these expense items.*

3. After defining a specific expense, return to the Task worksheet you have started to work on and complete the input information concerning the specific expense (again, by entering data only in the yellow-colored cells). Repeat this sequential procedure for all the expense categories relevant to the Task.
4. Follow the procedure described in Section 2-3 above for all the Tasks in your project. The total cost of a Task will be calculated at the bottom of the Task worksheet (including all built-in overhead allowances) and will also appear in the "Tasks Report" summary worksheet, itemized by expense type.
5. The cumulative values of all the expense components in all Tasks will appear in the "Total Budget" worksheet, at the corresponding location of the expense component in the Tasks worksheets.

NOTE: *Only the "Total Budget" worksheet (2 pages in total) for each company should be included in Section L of the proposal. Please do not attach the budget worksheets of the individual tasks to the proposal document. The complete Excel workbook softcopy of the "Task Budget", which includes the individual budgets of each task, should be uploaded to BIRD's upload system in parallel with the submittal of the hardcopy.*

Format of the Task-Based Budget Form

Co. Name:

Task #: Task name:

PROPOSED TASK BUDGET From date: MM/DD/YY To date: MM/DD/YY

Task duration: 0 days

Description	Details					Cost (\$)	Total (\$)
I. Direct Labor							
Employee's Name (TBD if yet unknown)	Employee's Profession	Employee Location	Gross Annual Salary* (\$)	% on Task	No. of Days in Task	Cost to Project (\$)	
Empl. 1:			-		0	0	
Empl. 2:			-		0	0	
Empl. 3:			-		0	0	
Empl. 4:			-		0	0	
Empl. 5:			-		0	0	
Empl. 6:			-		0	0	
Empl. 7:			-		0	0	
Empl. 8:			-		0	0	
Empl. 9:			-		0	0	
Empl. 10:			-		0	0	
Empl. 11:			-		0	0	
Empl. 12:			-		0	0	
Empl. 13:			-		0	0	
Empl. 14:			-		0	0	
Empl. 15:			-		0	0	
Empl. 16:			-		0	0	
Empl. 17:			-		0	0	
Empl. 18:			-		0	0	
Empl. 19:			-		0	0	
Empl. 20:			-		0	0	
Total, Direct Labor			* Including social benefits			0	
Overhead @ 25%						0	
Subtotal, Direct Labor + Overhead							0
II. Equipment							
Purchased Equipment Description	Purchased Cost (\$/unit)	No. of Units	% On Task	% Annual Depreciation	Depre-ciation (\$)		
Item 1	-	-		33.3%	0		
Item 2	-	-		33.3%	0		
Item 3	-	-		33.3%	0		
Item 4	-	-		33.3%	0		
Item 5	-	-		33.3%	0		
Item 6	-	-		33.3%	0		
Item 7	-	-		33.3%	0		
Item 8	-	-		33.3%	0		
Item 9	-	-		33.3%	0		
Item 10	-	-		33.3%	0		
Subtotal, Purchased Equipment						0	
Leased Equipment Description	Monthly Lease Cost (\$/unit)	No. of Units	% On Task	Total Leasing Cost (\$)			
Item 1	-	-		0			
Item 2	-	-		0			
Item 3	-	-		0			
Subtotal, Leased Equipment				0			
Subtotal, Purchased or Leased Equipment							0
III. Expendable Materials & Supplies							
Description	Cost (\$)						
Item 1							
Item 2							
Item 3							
Item 4							
Item 5							
Item 6							
Item 7							
Item 8							
Item 9							
Item 10							
Subtotal, Expendable Materials & Supplies							0

Co. Name:

Task #: Task name:

PROPOSED TASK BUDGET From date: MM/DD/YY To date: MM/DD/YY

Task duration: 0 days

IV. Travel

Foreign Travel

Destination	Purpose	Cost Per Person Per Trip (\$)	No. of Trips	No. of People Per Trip	Duration Per Trip (days)	Cost (\$)
Dest. 1		-		-	-	0
Dest. 2		-		-	-	0
Dest. 3		-		-	-	0
Dest. 4		-		-	-	0
Dest. 5		-		-	-	0
Dest. 6		-		-	-	0
Subtotal, Foreign Travel			0			0

Domestic Travel

Destination	Purpose	Cost Per Person Per Trip (\$)	No. of Trips	No. of People Per Trip	Duration Per Trip (days)	Cost (\$)
Dest. 1		-		-	-	0
Dest. 2		-		-	-	0
Dest. 3		-		-	-	0
Subtotal, Domestic Travel			0			0
Subtotal, Travel						0

V. Subcontracts

Service to be Performed	Name of Subcontractor	Country Service Given	Cost (\$)
Subcont. 1			
Subcont. 2			
Subcont. 3			
Subcont. 4			
Subcont. 5			
Subcont. 6			
Subtotal, Subcontracts			0

VI. Consultants

Service to be Performed	Name of Consultant	Hourly Rate (\$/Hr.)	No. of Hours	Cost (\$)
Consult. 1		-		0
Consult. 2		-		0
Consult. 3		-		0
Consult. 4		-		0
Consult. 5		-		0
Consult. 6		-		0
Subtotal, Consultants				0

VII. Other Expenses

Description	Cost (\$)	
Item 1		
Item 2		
Item 3		
Item 4		
Item 5		
Subtotal, Other Expenses		0

Subtotal task budget, before G&A Expenses
 General & Administrative Expenses (G&A) @ 5%
 Total Task Budget

0
0
0

PROPOSED PROJECT BUDGET

Company name: _____
 Project duration: _____ months

I. Direct Labor						
Employee's Name (TBD if yet unknown)	Employee's Profession	Employee location	Gross Annual Salary* (\$)	% on Project	Cost to Project (\$)	
Empl. 1:				0%	0	
Empl. 2:				0%	0	
Empl. 3:				0%	0	
Empl. 4:				0%	0	
Empl. 5:				0%	0	
Empl. 6:				0%	0	
Empl. 7:				0%	0	
Empl. 8:				0%	0	
Empl. 9:				0%	0	
Empl. 10:				0%	0	
Empl. 11:				0%	0	
Empl. 12:				0%	0	
Empl. 13:				0%	0	
Empl. 14:				0%	0	
Empl. 15:				0%	0	
Empl. 16:				0%	0	
Empl. 17:				0%	0	
Empl. 18:				0%	0	
Empl. 19:				0%	0	
Empl. 20:				0%	0	
Total, Direct Labor			* Including social benefits		0	
Overhead @ 25%					0	
Subtotal, Direct Labor + Overhead					0	
II. Equipment						
Purchased Equipment Description	Purchased Cost (\$/unit)	No. of Units	% On Project	% Annual Depreciation	Depre-ciation (\$)	
Item 1			0%	33.3%	0	
Item 2			0%	33.3%	0	
Item 3			0%	33.3%	0	
Item 4			0%	33.3%	0	
Item 5			0%	33.3%	0	
Item 6			0%	33.3%	0	
Item 7			0%	33.3%	0	
Item 8			0%	33.3%	0	
Item 9			0%	33.3%	0	
Item 10			0%	33.3%	0	
Subtotal, Purchased Equipment					0	
Leased Equipment Description	Monthly Lease Cost (\$/unit)	No. of Units	% On Project	Total Leasing Cost (\$)		
Item 1			0%	0		
Item 2			0%	0		
Item 3			0%	0		
Subtotal, Leased Equipment					0	
Subtotal, Purchased or Leased Equipment					0	
III. Expendable Materials & Supplies						
Description						Cost (\$)
Item 1						0
Item 2						0
Item 3						0
Item 4						0
Item 5						0
Item 6						0
Item 7						0
Item 8						0
Item 9						0
Item 10						0
Subtotal, Expendable Materials & Supplies						0

Format of the Proposed "Total Budget" Form (continued)

PROPOSED PROJECT BUDGET

Company name: _____
 Project duration: _____ months

IV. Travel						
Foreign Travel						
Destination	Purpose	Cost Per Person Per Trip (\$)	No. of Trips	No. of People Per Trip	Duration Per Trip (days)	Cost (\$)
Dest. 1			0			0
Dest. 2			0			0
Dest. 3			0			0
Dest. 4			0			0
Dest. 5			0			0
Dest. 6			0			0
Subtotal, Foreign Travel			0			0
Domestic Travel						
Destination	Purpose	Cost Per Person Per Trip (\$)	No. of Trips	No. of People Per Trip	Duration Per Trip (days)	Cost (\$)
Dest. 1			0			0
Dest. 2			0			0
Dest. 3			0			0
Subtotal, Domestic Travel			0			0
Subtotal, Travel						0
V. Subcontractors						
Service to be Performed	Name of Subcontractor	Country of Service	Cost (\$)			
Subcont. 1			0			
Subcont. 2			0			
Subcont. 3			0			
Subcont. 4			0			
Subcont. 5			0			
Subcont. 6			0			
Subtotal, Subcontracts			0			
VI. Consultants						
Service to be Performed	Name of Consultant	Hourly Rate (\$/Hr.)	No. of Hours	Country of Service	Cost (\$)	
Consult. 1			0		0	
Consult. 2			0		0	
Consult. 3			0		0	
Consult. 4			0		0	
Consult. 5			0		0	
Consult. 6			0		0	
Subtotal, Consultants			0			
VII. Other Expenses						
Description	Cost (\$)					
Item 1	0					
Item 2	0					
Item 3	0					
Item 4	0					
Item 5	0					
Subtotal, Other Expenses			0			
Subtotal budget, before G&A Expenses			0			
General & Administrative Expenses (G&A) @5%			0			
Total Project Budget for Company			0			
Projected Expenditure, by Segment			Segment Duration (months)	% of Total Budget	Projected Expenditure (\$)	
First segment					0	
Second segment					0	
Third segment					0	
Fourth segment					0	
Fifth segment					0	
Sixth segment					0	
Seventh segment					0	
Total			0	0%	0	

I. Direct Labor

The Gross Annual Salary, an input item, is the actual current salary plus social ("fringe") benefits of employees expected to work on the project. The maximum annual salary (including social benefits for a full-time position) currently recognized is \$100,000* for Israeli companies and \$150,000* for U.S. companies. Typically, in addition to the engineering and technical personnel, the staff includes prototyping, R&D documentation and marketing personnel. NOT to be included are corporate executives, secretarial staff, legal staff, administrative staff or staff engaged in selling activities; such expenses are included in the overhead allowance.

*Starting with projects approved in June 2021, the maximum annual salary will be \$125,000 for Israeli companies and \$175,000 for U.S. companies.

The % on Project, an input item, is the average portion of any given worker's time spent directly on the project throughout the entire project, given as a %.

The Cost to Project, a computed item, is the product of the Gross Annual Salary (including social benefits) X% on project X number of months on the project / 12.

Overhead (O/H), at the rate of 25% on the total direct labor, is a computed item and includes all indirect labor overhead expenses.

II. Equipment

Depreciation – this budget item refers to depreciation allowance on capital equipment employed and not to capital expenditures. The depreciation allowance equals the purchase cost of the equipment item being employed (an input item given in \$/unit) X number of units employed (an input item) X % of the time in which the equipment is employed on the project (an input item) X the annual depreciation rate (in % per year). The annual depreciation rate currently allowed is 33.3%.

The Leasing Cost equals the monthly lease cost or rental cost of capital equipment (an input item given in \$/unit/month) X the number of units leased/rented (an input item) X % of the time in which the leased/rented equipment is employed by the project (an input item) X project duration (in months).

III. Expendable Materials & Supplies

List and describe each major item or groups of related items categorized as expendable materials and supplies.

For any item that is over \$50,000, we ask that you provide a breakdown and more detail.

IV. Travel

Travel expenses should be classified as either foreign or domestic travel. In either case, the trips should be itemized by the destination and the purpose of the trip, which should be described in a few words.

The cost (\$) is the cost per person per trip (an input item in \$) X the number of people per trip (an input item) X the number of trips of the same kind taken throughout the project (an input item). The duration per trip (in days) is just an informative data item.

V. Subcontractors

Please identify each subcontractor, the service to be performed, the country the service will be given and the cost for each service. Explain the basis for the costs.

For any item that is over \$50,000, we ask that you provide a breakdown and more detail.

VI. Consultants

Please identify each consultant, the nature of the consulting activity, the country the service will be given, the hourly rate upon which the charge will be made (an input item given in \$/hr.) and the estimated number of consultant hours (an input item).

For any item that is over \$50,000, we ask that you provide a breakdown and more detail.

VII. Other Expenses

Typical "Other Expenses" include items such as exhibits, regulatory activities, standards certifications, field trials, patent registration, market surveys or other miscellaneous development-related expenses not covered by any of the previous expense categories.

Please note that patent registration costs are allowable at up to \$20,000 per patent, subject to a maximum of \$25,000 per registration in two continents, with a maximum of two patents (\$40,000 or \$50,000) per project.

For any item that is over \$50,000, we ask that you provide a breakdown and more detail.

General & Administrative Expenses (G&A), computed at 5% over the subtotal budget, represents all operating overhead items such as secretarial services, legal staff, rent, utilities, etc.

Projected Expenditure, by Segment

The overall project period is organized in (equal, if possible) segments of approximately 6 months each, for the purpose of monitoring, reporting and payment of the conditional grant funds. For each segment in the project, please specify the segment duration (6 months, unless otherwise approved by BIRD) and the estimated relative expenditures for the segment (given as % of the total budget). Please note that the total segments duration must equal the total overall project duration and that the % of total budget for all segments must sum to 100%.

M. Risk Analysis

1. Use the following tables to describe the main risks of the project.
2. TABLE 1A: Identify at least 5 main risks. The table can be extended to add additional risks, but not more than 10. Number the risks and give each one a short identification name. Keys for probability ranking and for evaluating impacts are provided in the 4 small tables, hereinafter.
3. TABLE 1B: Describe each of the identified risks concisely. Use additional space, if needed for clarity. Risks can be of different types, as exemplified in the explanation to TABLE 1B. Other types may be used by adding them to the explanations.

Note: The Tables' template can be found as a Word file, downloadable from BIRD's website. Do not make any changes to the template.

RISK ANALYSIS TABLES
Do not change format (color & font size)

TABLE 1A

Risk #	Name/Description	Ranking	Impact		
			Duration ¹	Budget ²	Commercialization Potential ³
1					
2					
3					
4					
5					

TABLE 1B

Risk #	Name/Description	Type*
1		
2		
3		
4		
5		

*Type: Technical (T), Project Management/Resources (M), External to the Project (E)

Ranking	Probability of Risk Occurring
High	Above 50%
Medium	30 – 49%
Low	10 – 29%
Very Low	1 – 10%

Impact	Duration ¹
High	Above 6 months
Medium	3 to 6 months
Low	Below 3 months

Impact	Budget ²
High	Above 20% increase
Medium	10% to 20% increase
Low	Below 10% increase

Impact	Commercialization Potential ³
High	Above 50%
Medium	30% to 50%
Low	1% to 29%

1. Duration of project extended by the given amount
2. Cost of project increases by the given percentage
3. Forecasted sales in the next 3 or 5 years reduced by the given percentage

N. Sundry Information – Mandatory

To enable the Foundation to prepare the CPFA (see Section 5.1.1 - Agreements, at the Entire Procedures Handbook) on a timely basis following approval of the grant application by BIRD's Board of Governors, please provide the following information in the proposal itself:

Venue for the applicable law governing the CPFA between the companies and the Foundation, i.e., one of the States of the U.S. or Israel, as agreed upon by the companies.

Israeli Company

Project Manager -

Full name and title: _____

Position in company: _____

Email address: _____

Direct number: _____

Mobile number: _____

Fiscal Information Official -

Full name and title: _____

Position in company: _____

Email address: _____

Direct number: _____

Mobile number: _____

U.S. Company

Project Manager -

Full name and title: _____

Position in company: _____

Email address: _____

Direct number: _____

Mobile number: _____

Fiscal Information Official -

Full name and title: _____

Position in company: _____

Email address: _____

Direct number: _____

Mobile number: _____

Details of bank accounts to enable the Foundation to transfer the payments to the companies.

Israeli Company

- Name of Account
- Account Number
- Name of Bank
- Branch number
- Complete bank address
- IBAN number

U.S. Company

- Name of Account
- Account Number
- Name of Bank
- Complete bank address
- ABA Routing number
- SWIFT number

Certificates of Incorporation – to be provided on separate pages each