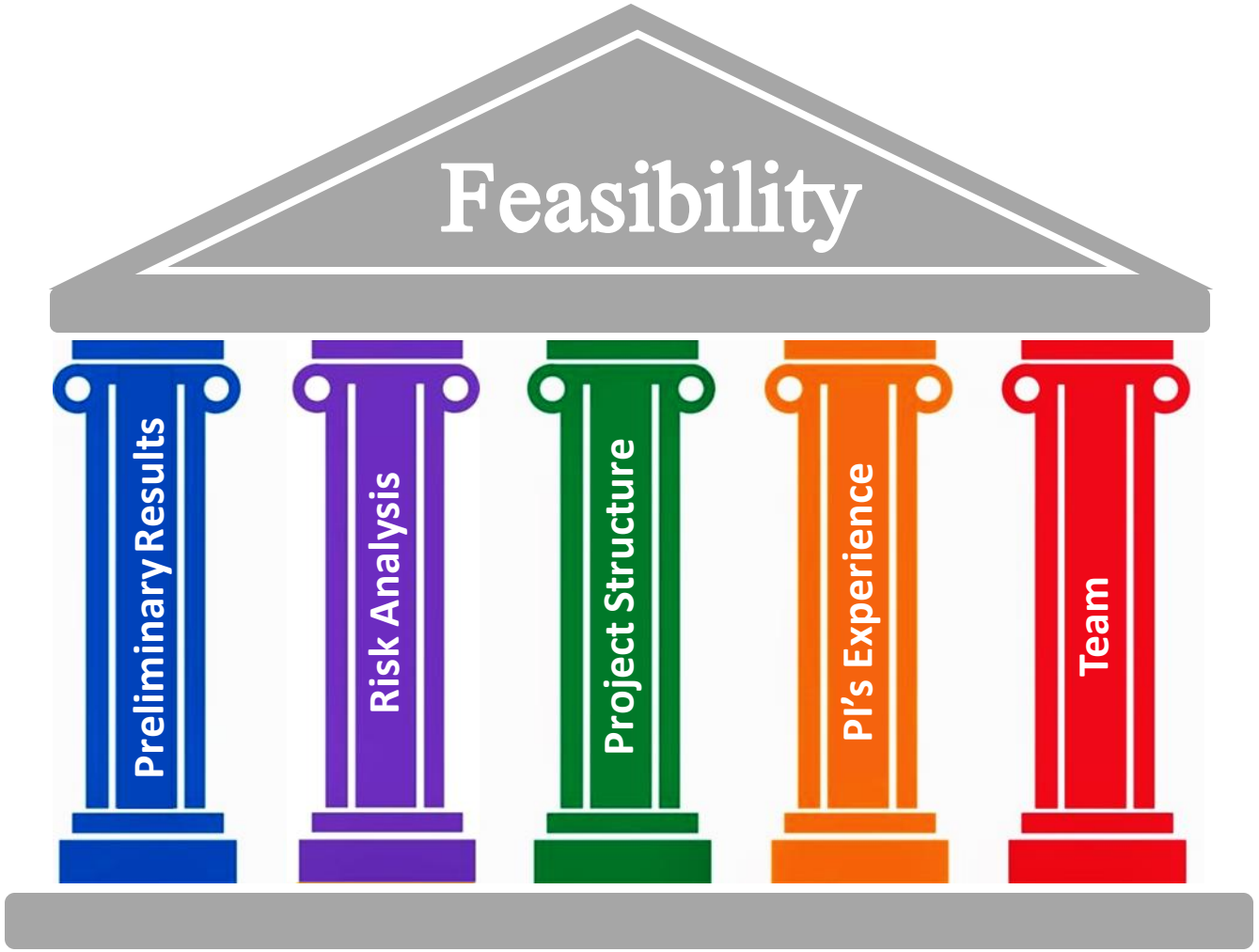
Feasibility in ERC Proposals



TECHNION R&D
Foundation Ltd.
Research Authority

Preliminary Results

- Gives a concrete basis for the overarching idea and justifies the hypothesis/novel approach.
- Lays ground for the project's specific objectives.
- Demonstrates the PI's experience and ability to carry out the suggested research.

General recommendations:

- Using published results as the preliminary data for the project is convincing and increasingly appreciated (having been peer reviewed the results are considered more reliable than unpublished data).
- Unpublished data can presented as preliminary results - if data has been presented in conferences, this can be mentioned and referenced.
- Don't overwhelm the reviewer with preliminary results that are not relevant to the project. The majority of the proposal should be devoted to explaining the proposed project.
- Always frame preliminary data as a basis or first glimpse of what can be achieved.
- It should always be clear that the main challenge of the project is still ahead.

Risk analysis

-Shows that the project is well thought out

-Underscores the PI's deep understanding of the project

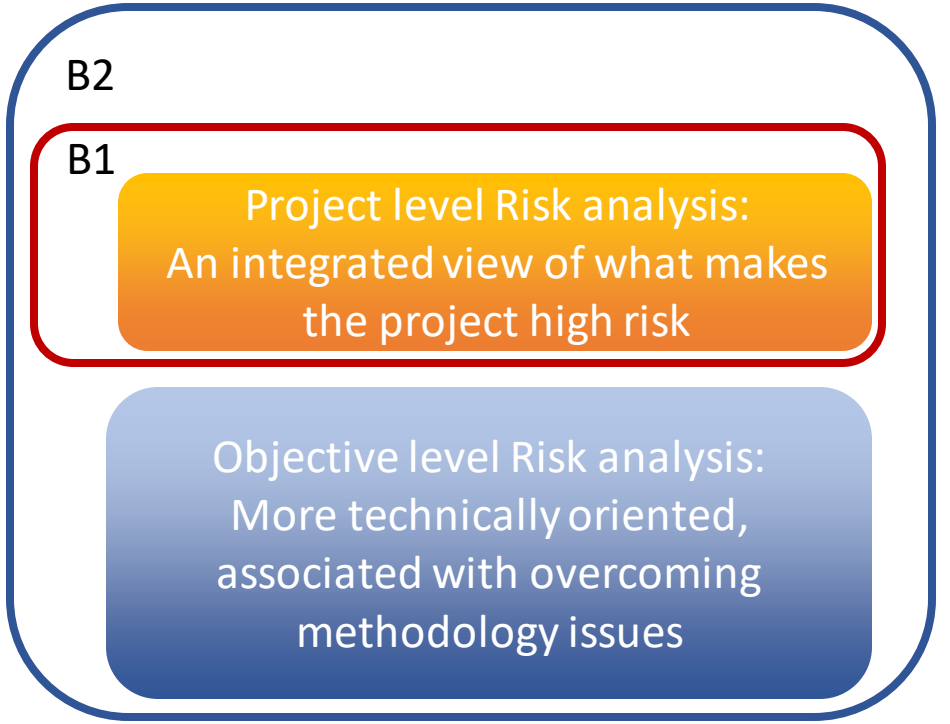
General recommendations

For Objective level risks:

- Identify the risks clearly and explicitly, don't leave it for the reviewer to figure out what the risk is.
- Formulate convincing and reasonable alternative plans.
- Comment on how the structure of the project and objectives contributes to mitigating the risk (identifying roadblocks, bottleneck, benchmarking, etc)

For Project level risks:

- Discuss how the overall risk of the project is a result of high ambition and is accompanied by high potential gain.
- Identify the ground-breaking discoveries which will come out of the project even if the final goal is not achieved in entirety.
- Discuss the flexibility of the project structure and how this allows you to redefine major goals and directions as you encounter obstacles.



B1 should focus more on Project level risk assessment due to space limitations.

B2 must detail **both** the technical risks (either within the methods or as a dedicated section) and project level risks (throughout the proposal but often highlighted in the introduction or summary)

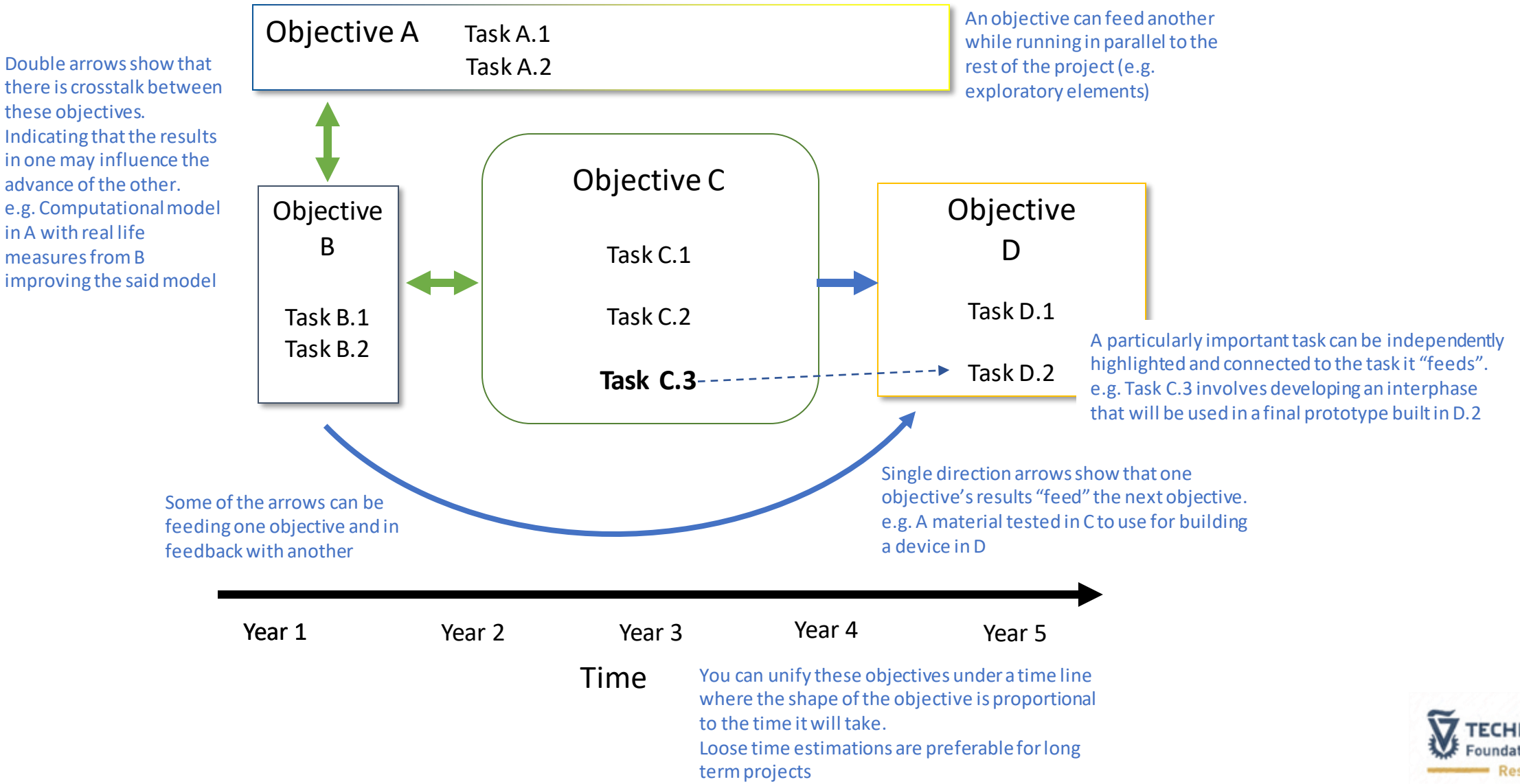
TECHNION R&D Foundation Ltd. Research Authority

Project structure

- Shows the ambitious, potentially unachievable, ultimate goal can be broken down into more manageable and achievable tasks and highlights the potential breakthroughs which can be achieved throughout the project.

General recommendations:

- Explicitly present the project structure and show an organized and logical order for achieving the goal. A visual scheme is useful (see next slides)
- Present the reviewer with a general overview of the plan and the logic behind it before going into the details.
- Aims and tasks should integrate/synthesize together to address the overall goal. ERC don't fund collections of related projects.
- Show how the structure allows monitoring the progress of the project including the identification of risks and use of contingency plans.
- Avoid a linear project structure. A long term project must be flexible enough to achieve the goal, especially for high risk projects.
- Describe how steps within the overall project can lead to breakthroughs.

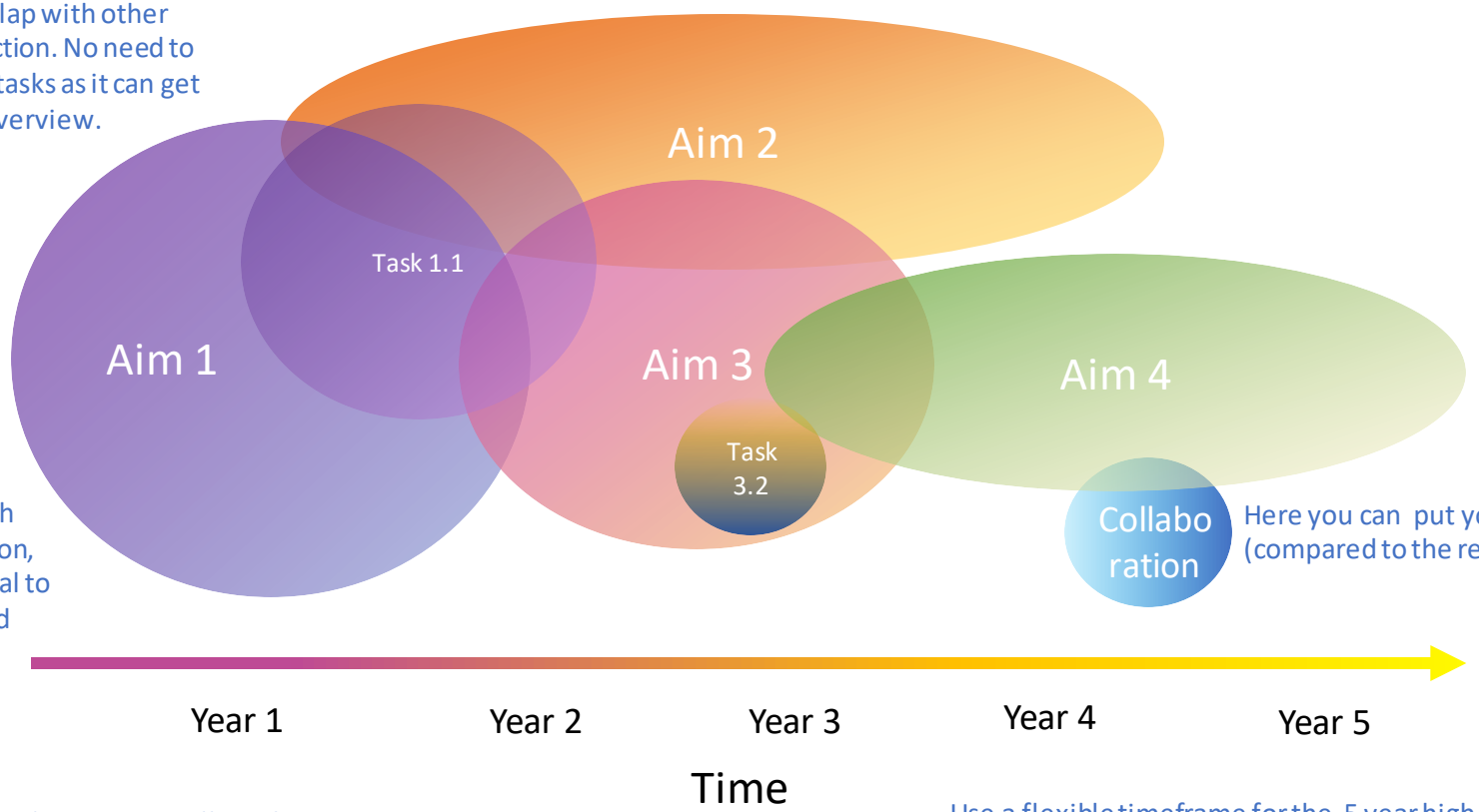

Objective A
Task A.1
Task A.2
An objective can feed another while running in parallel to the rest of the project (e.g. exploratory elements)
Double arrows show that there is crosstalk between these objectives. Indicating that the results in one may influence the advance of the other. e.g. Computational model in A with real life measures from B improving the said model
Objective B
Task B.1
Task B.2
Objective C
Task C.1
Task C.2
Task C.3
Objective D
Task D.1
Task D.2
A particularly important task can be independently highlighted and connected to the task it "feeds". e.g. Task C.3 involves developing an interphase that will be used in a final prototype built in D.2
Some of the arrows can be feeding one objective and in feedback with another
Single direction arrows show that one objective's results "feed" the next objective. e.g. A material tested in C to use for building a device in D
Year 1
Year 2
Year 3
Year 4
Year 5
Time
You can unify these objectives under a time line where the shape of the objective is proportional to the time it will take.
Loose time estimations are preferable for long term projects

Colors can be used according to the type of goals, more ecologically oriented could be green, technological ones in blue. This is not formal color coding, just an idea for subtle ways of suggesting the nature of the goal.

Alternatively aims can be color coded for student responsibilities, stressing the need for each student

The size of the aim bubble can correlate to the amount of work and time required

Some tasks may overlap with other aims showing interaction. No need to write all the specific tasks as it can get too crowded in the overview.



It's important to stress the interactions between the aims/tasks. For projects with less clear aim interconnection, this schematics can be critical to support the idea of a unified project

Here you can put your collaborations in perspective (compared to the rest of the tasks).

Label the aims clearly and non generically with either a short descriptive name or a legend. Don't make the reviewer look back through the document to remember which aim is which.

Use a flexible timeframe for the 5 year high risk project.
Exact dates for each task, especially late ones, can suggest low risk.

TECHNION R&D Foundation Ltd.
Research Authority

PI's Experience

Since ERC is an individual grant, your knowledge and expertise are critical in supporting feasibility.

You must show that you have expertise and experience in the area of the proposed research, that you are capable of coming up with answers to the problems that may arise and that you know how to lead others in achieving the project goals.

General recommendations:

- Discuss different types of experience; technical, innovation/idea development, teaching and training, leadership, running grants/projects etc.
- A good project structure, methods description and risk assessment underscore your experience in building a successful project.
- Your experience can be highlighted throughout the proposal; you can place yourself in the state of the art and explain in the research plan your experience with different methods.
- When referencing your own work be explicit in stating that it is work coming from your group.
- Use the CV and track record both to highlight your excellence as a researcher generally and also to demonstrate specifically your experience for the project. Explain why you are best positioned to undertake this research (unique insight/preliminary results, unusual career path combining different expertise, novel approach

Team

Human resource is key for the success of the project; having/hiring people that know how to deal with the different topics involved in the project reduces the need to train them and adds experience to the project.

General recommendations:

- Describe the expertise of your current group and particular capabilities relevant to difficult tasks of the planned project.
- Discuss unique combinations of expertise if relevant.
- Discuss the ideal team composition for your project and if and how your current team will be integrated. Explain the advantages of this integration (e.g. inclusion of current team members can reduce the training time required to start the project).
- Detail task assignment: higher risk aims should be lead by more experienced team members (e.g. postdoc rather than masters student). As well as strengthening the feasibility a good description of team assignment to tasks reduces the chance of having the budget reduced due to unjustified personnel costs.
- Detail how expertise and knowledge will be shared and transferred (e.g. from a leaving postdoc to an incoming postdoc).
- Briefly explain the high level of Masters students in Israel (performing research and publishing papers). This is different to most European Masters and the reviewer may not be aware of the difference.
- Collaborations should be restricted to enriching specific tasks/elements of the project.
- Consider and mention your wider network of contacts – experts in your faculty/university who might provide useful discussion but not formally collaborate. Having access to this knowledge increases feasibility of overcoming challenges.