

Research and Innovation Pre-Award Services, DPFC, IST-ID

Guidance for ERC Interviewees (work in progress)

Contents

Context.....	2
Preparing for the interview	2
Mock interview	3
The interview	3
Presentation	3
Questions	4
General tips from previous candidates, panellists and the National Contact Point (NCP)	5
Examples of possible interview questions.....	7
Questions can focus on very detailed elements of the proposal as well as more generic questions.....	7
Questions about the research discipline.....	7
General questions about the project	7
Questions can focus on why the ERC should fund you	7
Questions about the budget/team/implementation.....	7
Questions about the PI.....	8
ERC Evaluation Process.....	8
Useful Links.....	11
Annex 1 – Example of a script for an ERC SyN Grant Interview	12

Context

ERC interviews are currently being held by video conference. Applicants will receive information about the timing and format of their interviews from the ERC.

Interviews are expected to last 15 to 25 minutes and “will provide an opportunity for the evaluation panel members to ask further questions about the proposed research”.

The format will be a short presentation followed by questions from the panel. Please check the information provided with your interview invitation.

Candidates have been given a time window of just over an hour and must be available for the whole of this time as the interview may start at any time in the allotted period. Detailed information is in the notification letters from the ERC1.

Note that times are given in CET i.e. Brussels time. Please ensure you make the necessary adjustment for PT time.

It is strongly recommended that applicants arrange mock interviews – both to prepare for questions, and to practice with the interview format.

Representatives from Research Management Services are happy to participate in mock interviews (subject to notice and availability).

Useful resources to help prepare for a video-conference interview can be found at the end of this document.

Research Services have collated information from past interview candidates and from past interview panelists. A summary is attached which we hope will be useful.

Summary of information and suggestions for Stage 2 applicants provided by previous panel members and applicants

Preparing for the interview

Remind yourself of the evaluation criteria and think how you can score highly against these during your interview.

Be aware of the panel's expertise. A list of panel chairs is published on the ERC website ([Document library | ERC \(europa.eu\)](#)) or available on [ERC panel members database - Enspire Science Ltd.](#) before the dates of the interviews. Panel members sit in alternate years and, while the list of panel members for a specific call is not available until after the evaluation for that call is complete, it might be worth checking the panel member list for the 2022 call.

Mock interview

Arrange a mock interview (by Webex if possible). Try to include people on your mock panel both from your specialist area and the related general areas covered by your actual review panel. Ensure that the mock panel members have the scheme evaluation criteria and your proposal. Ask for honest, critical feedback to enable you to improve your performance before the real interview. Feedback from successful candidates is that the tougher the mock panel experience the more useful it was in preparing them for the real thing.

Some tips from previous candidates

- Review your project in advance and use the experiences of mock interviews to see where questions are likely to be asked. Prepare answers to them.
- The Panel chair or a key panellist may be from outside Europe so don't limit yourself to a European perspective on your research area.
- Mirror the format of your real interview in the mock interview – particularly timing. You can, of course also cover additional material but in the actual interview you will have limited time and you will want to be sure you can convey as much useful information to the panel as possible in this time.

The interview

Depending on the panel, interviews will last 15 to 25 minutes.

Presentation

After a brief introduction by the Panel Chair or his/her delegate, the panel will ask you to give a short, time-limited, presentation (check your interview documents for exact timing) on the proposed research project. Ensure you follow the guidance provided to you by the ERC on length of presentation. They will stick to this and will stop your presentation when your time is up.

Consider whether it may be better to focus on 1-2 particularly important objectives and/or examples instead of trying to get across too many messages during the presentation

Some tips from previous candidates/panelists

- Prepare the presentation. It is obvious when people haven't
- Keep to the timing for your presentation - focus on the message you want the panel to remember and make every second count
- Memorize at least the first and last sentences of your talk
- A catchy start will help to capture the panel's attention

- Provide a narrative in your presentation, including the “big picture”. This will support you in engaging also those panel members who are not in your field
- Decide on your narrative first and prepare the slides afterwards (rather than building a narrative with slides you already prepared previously). The presentation should come across as a story and not as if you were going through a “checklist”
- Your slides should illustrate what you are saying, but not contain all the information – the panel members should be prompted to look at you rather than at the slides.
- Highlight the importance and exciting potential of your research project
- Make your hypothesis absolutely clear. Tell them precisely how you will test it. Explain why the project is important
- Look enthusiastic. It won’t help if you look tired or bored
- Make the presentation entertaining if the topic is very theoretical, or if you want to stand out from the crowd. The panel members participate in many interviews each day - you want them to remember you
- Be careful of how you relate to the panel. Find a balance between being over-deferential and arrogant. Jokes or irony should be used with caution. They may not work for a multi-cultural panel.
- Take particular care in preparing the first and the last slide: The last slide will remain displayed during the discussion (and is thus ideal for a summary of the project and your research vision). The first slide will likely already be on display when you walk into the interview room.
- Whenever possible, answer questions directly rather than flicking back through slides “in search for an answer”.

Questions

The rest of the interview will be devoted to questions and answers on the scientific content and implementation of your project. You may be asked about your proposed budget.

Some tips from previous candidates/panelists

- The interview panel consists of 10-15 people. Some panel members might be more interested in your proposal than others, so the questions may come from a limited number of people. Some panelists may look disinterested. Those asking the questions will be engaged and will definitely have read the proposal.
- Keep your answers short and to the point. Panel members can always ask a follow-up-question if they want further information. In general, panel members will be less interested in your answer as such – above all, they will seek to determine if you know the answer or not.
- Never interrupt a question, even if it is lengthy.
- Say “We are planning to...” rather than “we are thinking of...”
- If a panel member appears to have misunderstood something, you could say “perhaps I/we gave the impression that...”; “I/we had no time in my

brief presentation to explain X” or similar, but not “it is wrong/not correct that...”

- In the discussion, do not start your reply with a phrase like “This is a very good question,...”, “thank you for the question” or similar.
- Questions may be aggressive and may query the approach taken and validity of the work. The key is not to become defensive. The panel may be testing how candidates react under pressure. Don’t be over technical. Do be enthusiastic as they like to see people excited at the prospect of doing the research. They want to see that the project is novel and feasible, and that it is YOUR proposal. Questions will check your independence and will pick up on gaps, e.g. if you have no supervisory experience they may question your ability to run the project. Questions can be tough but they will be fair. They will test particularly that the proposal is your own idea and that you have the capacity to lead the project.
- Expect the unexpected: Panel members will try to ask questions you have not been asked before, and to see how you react “under pressure”. →Take a moment to think before answering a question. Also apparently simple questions may have a catch.
- Panellists typically give no kind of feedback during the interview (no murmuring of agreement or nodding of heads). They are very “business-like” in approach. This lack of interaction is quite different to other interviews. You may be left unsure afterwards as to whether it had gone spectacularly well or spectacularly badly.

General tips from previous candidates, panellists and the National Contact Point (NCP)

- Avoid jargon
- Avoid empty words/ filling phrases such as “basically”, “obviously”, “as I already said before”
- Know the content of your proposal. Re-check your proposal to identify possible open questions/ambiguities/“weak spots” that could be addressed by reviewers in the hearing, e.g. more information on methodology, risk management, team composition, choice of case studies or recent scientific developments (□ competing approaches)
- Have critical reviewers read your proposal and provide challenging questions so that you are aware of where interest might be
- project hypothesis clear in terms that an informed generalist will understand.
- Individuals on the panel will have specific expert knowledge and will lead questioning on your project.
- Panels will spot spin. They don’t like it. However, you should be prepared to explain how new knowledge from your project will inform state-of-the-art and so the future direction of your research discipline.

- Be aware of any recent developments in your field. The panellists most interested in your project will have read about these in detail and will be informed. They may also have read your recent publications and may scrutinise your on-line presence and that of your proposal's area of research. Ensure your web pages are up-to-date.
- Ensure you understand and can defend your budget. Not all panels ask about the budget but yours might, particularly if you have asked for the additional top-up element. Be prepared to justify your budget. If you are unable to, it might influence the panel's perception of your ability to manage a high value grant. The panel can (and do) cut the budgets of projects they fund.
- Be prepared to justify the size and make-up of your team, particularly if it is a large and/or multidisciplinary team. Expect to be able to demonstrate that you will be able to supervise, control and manage the personnel while still conducting the research. Be prepared to explain how you will put a team in place if you do not already have one, how the team will be structured and how you will manage it. Be prepared to demonstrate your leadership potential if you have not already managed a team.
- Panels expect that applicants understand the risks involved in their project and have factored in back-up plans if things don't work. The ERC will not penalise you if your research does not produce the expected or desired results. A failure in one avenue of enquiry may well open another one. Don't be afraid to admit that you do not know the answer to a question on future research; it is fine to say that you do not have an answer yet and it depends on the outcome of the research you wish to carry out.
- Avoid any hint of arrogance. Panellists are instructed to ignore any reputation (good or bad) of host institutions.
- Be careful about the use of "we" when presenting the project: the panel will be looking for evidence that you are leading the project and may interpret this as demonstration of lack of independence. Make it clear that "we" is the project team
- Concentrate on the **science** of your project but know what impact your project could have in case you are asked
- Preliminary work presented should not give the impression that a large part of the work has already been done, so that there would only be limited need for ERC funding. The project should thus not come across as a "mere extension of previous work". Describe the preliminary work as pilot study/proof of concept, and focus on what is new in the project
- Panel Members may ask questions that aim at relating your work to their own research field. This is an opportunity to "invite them on board". The answer should therefore never be "area x/application y is not of interest for this project", but as inclusive as possible

Examples of possible interview questions

Questions can focus on very detailed elements of the proposal as well as more generic questions

- What is unique about your project?
- What is the most critical step in your proposal?
- Why is your project timely?
- What is the most important result in your field in the last 5 years?
- What will happen after 5 years, what will the project lead to?
- What is the most important result that could come from your project?
- What are the weaknesses of your project and how might you deal with these?

Questions about the research discipline

- Who are your main competitors (names, places)? Which other research groups are active in this field and why is your approach better?
- How do you see the future of your research field? How will your research results change this field?
- How can your results be useful for other disciplines?
- What are your contributions to your research field (so far)?

General questions about the project

- Why is this ground-breaking research?
- Can you generate general conclusions from your specific results?
- Do you see any risks in your proposal? How do you deal with it, what is your plan B?
- How will you carry on with the project if your methodology does not work? What will you do if stage 1 in your research doesn't yield results?
- Where do you see the main challenges in your proposal?
- Why do you focus only on this, not on that?
- Validation of project results: How will you know that you have succeeded? How will you interpret results? E.g. statistical power analysis,...?
- How exactly will you do the data analysis?
- In what respect is your approach different from other approaches?
- Have you considered ethical aspects?
- Why do you do this? It's not necessary...
- Do you have any preliminary results?
- How is this project different from those you are/have been involved in?

Questions can focus on why the ERC should fund you

- A group at Harvard has multi-million dollar funding and 40 people and is doing similar work – why should the ERC fund you?
- Hasn't this already been demonstrated by another group?

Questions about the budget/team/implementation

- Why do you need so many team members?

- What will you do if we finance your project without the PhD students?
- Is there some chance to save some money in terms of budget cut?
- How will you recruit your team members?
- Why do you need dedicated admin support? You are supposed to be managing this project.
- Where will you find these specialists?
- How will you ensure that this project is successful?
- With which persons will you collaborate? Why?
- In what ways will your Host Institution support your project?
- What will you do if we decide not to fund this project?
- What is your strategy for selection of collaboration partners, e.g. with competitors?
- Expertise in area X/method Y seems to be missing in your project/group...?

Questions about the PI

- What will the grant mean for your personal development?
- How do you use the rest of your working time?
- Which are your most important papers? What was your contribution to these publications?
- Where do you see yourself in 5 years? What will be your standing once the project is finished?
- How many students have you supervised so far? What qualifies you to lead a team?
- Why haven't you published yet in Science, Nature, etc.? Why have you published only in national scientific journals?
- Your interaction with other ERC grant holders at the institution(s)? What are your main achievements so far?
- Why will the ERC Grant be crucial for you at this stage?
- Do you have a permanent position at your institution without the ERC grant?

ERC Evaluation Process

You have been invited for an interview on your ERC XX Grant proposal because it has been favourably rated in step one and two of the evaluation process.

An indicative evaluation timeline is available for the Starting Grant and Consolidator Grant Call on the ERC website

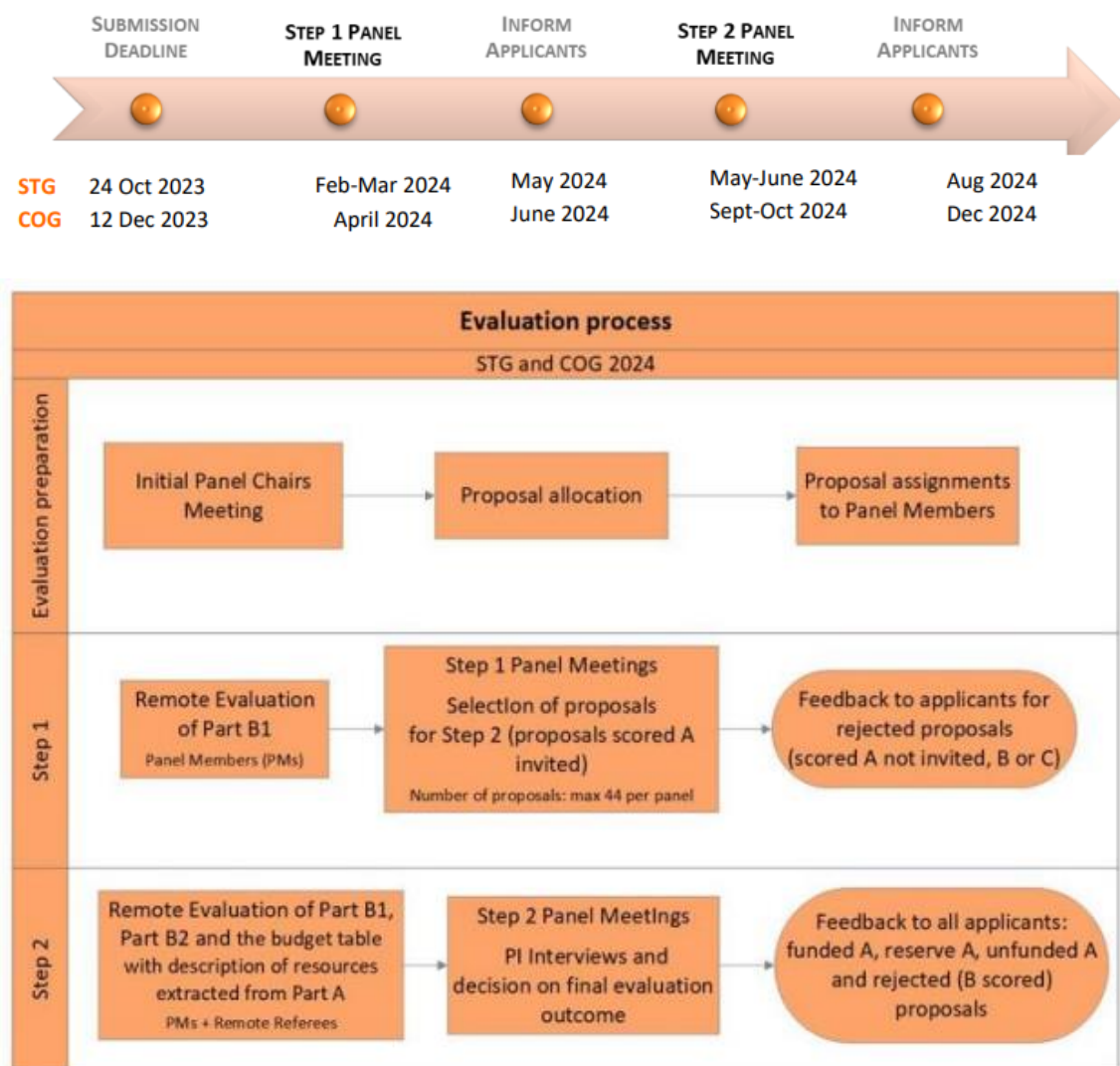


Figure 1 – Evaluation process for ERC STG/COG 2024; PI – Principal Investigator, PM – Panel Members

At **Step one**, the Extended Synopsis together with the Principal Investigator's CV and Track Record will be evaluated (Part B1). After the remote evaluation phase, each panel meets to discuss all proposals assigned to the panel. Proposals will proceed to Step 2 based on the outcome of the Step 1 evaluation: up to 44 proposals per panel will be retained for Step 2 of the evaluation.

In **step two**, the complete version (B1 + B2) of the retained proposals was evaluated. After a remote evaluation phase, the panels meet again.

Step 2 includes an **interview of approximately 30 minutes** of each applicant.

During the Step 2 panel meeting, the applicants will be interviewed **remotely**. The first part of the interview will be devoted to a **presentation on the outline of the research project** by the Principal Investigator. The remaining time will be devoted to a **question-and-answer session**.

The PI may expect questions also related to the detailed budget table and resources, which is part of the application.

The evaluation panels will review the requested budget for proposals recommended for funding and, if appropriate, recommend adjustments.

The assessment by the panels will take into account the interview alongside the individual reviews.

At the end of Step 2, following the timeline described above, applicants will be informed about the outcome of the evaluation. The score of their proposal can be either A or B:

A – the proposal fully meets the ERC's excellence criterion and is recommended for funding. Such project will be funded in priority order based on its rank if sufficient funds are available. This means that it is very likely that not all proposals

scored 'A' will eventually be funded by the ERC.

B – the proposal meets some but not all elements of the ERC's excellence criterion and will not be funded

The panel members who favourably evaluated your proposal in step one and two can be seen as your “advocates”. They give you the opportunity to personally outline your project and your (long-term) research vision, answer possibly surprising questions. The interview also provides the important chance to convince the other panel members who did not read your proposal of the unique character and promise of your proposal.

Following the interview, the panel will discuss all proposals and prepare the final ranking list. Afterwards, all evaluation reports have to be compiled and checked by the ERC Executive Agency, which is a main reason why it takes several weeks in addition before you are informed about the final result of the evaluation.

Important - No contact allowed with peer reviewers: In case you meet panel members/peer reviewers whom you know after you submitted your proposal, do not ask any question or provide any comment that even remotely touches upon your proposal, the interview or evaluation process in general. Otherwise, the risk is extremely high that your proposal will be excluded from the evaluation process, as also experience has shown.

Evaluation criterion and elements

The "scientific excellence" evaluation criterion will be applied in conjunction of both: (i) the groundbreaking nature, ambition and feasibility of the research project, and (ii) the intellectual capacity, creativity and commitment of the Principal Investigator, with a focus on the extent to which the Principal Investigator has the required scientific expertise and capacity to successfully execute the project. The detailed evaluation elements applying to these two categories are set out below.

1. Research Project - Ground-breaking nature, ambition and feasibility

Ground-breaking nature and potential impact of the research project

- To what extent does the proposed research address important challenges?
- To what extent are the objectives ambitious and beyond the state of the art (e.g. novel concepts and approaches or development between or across disciplines)?

Scientific Approach

- To what extent is the outlined scientific approach feasible bearing in mind the ground-breaking nature and ambition of the proposed research (*based on the Extended Synopsis*)?
- To what extent are the proposed research methodology and working arrangements appropriate to achieve the goals of the project (*based on the research proposal*)?
- To what extent are the proposed timescales, resources, and PI's commitment adequate and properly justified (*based on the research proposal*)?

2. Principal Investigator - Intellectual capacity and creativity

- To what extent has the PI demonstrated the ability to conduct ground-breaking research?
- To what extent does the PI provide evidence of creative and original thinking?
- To what extent does the PI have the required scientific expertise and capacity to successfully execute the project?

Useful Links

How to prepare for an interview - [How to prepare for your ERC interview \(youtube.com\)](https://www.youtube.com/watch?v=...)

Annex 1 – Example of a script for an ERC SyN Grant Interview

Presentation

Slide 1

Good afternoon everyone.

I'm AAAA, the Corresponding PI of this team and I lead the analytical elements of our work programme.

With me are my colleagues BBBB, who leads the experimental side, and CCCC, who leads the computational efforts.

Together we will not only test one of the fundamental predictions of quantum physics, but also create a new experimental platform and computational toolbox. This opens up a whole new frontier of exploration for the physics community.

I'll talk through the greater part of our presentation today, handing over to my colleagues to summarise their elements at certain points.

Slide 2

Back in the 1960s, people were asking “What can we do with this new ‘laser’ invention?”. Of course, since then their use has become ubiquitous in daily life from medicine to communications.

They've also driven tremendous scientific and technological breakthroughs. With rising intensity, lasers have taken us from studies of atomic physics to nonlinear optics, and then plasma physics and relativistic optics.

Now we intend to open a new frontier in laser applications to explore how the electromagnetic interaction behaves under extreme conditions.

Sixty years from now we hope another team will be presenting to you on the many opportunities that opened up!

[Much of this exploration has been possible through the invention of Chirped Pulse Amplification by Mourou and Strickland in the late 1980s.]

Slide 3

We will explore the connection between quantum mechanics and relativity in uncharted domains.

Using high power lasers, we will:

- Reach processes not available by any other means;
- Probe the transition between classical and quantum physics;
- Create anti-matter and extreme high energy light with exotic properties;
- Test the foundational predictions of QED, by scattering light from light – as never done before.

Slide 4

You'll be familiar with the process by which, when a laser interacts with a nonlinear crystal, light with double the frequency of the incoming laser can be generated.

ACRONYM enables us to create a similar effect – using nothing but light and the vacuum itself!

If several high intensity laser pulses are focused in a very small spot, the vacuum can become nonlinear, due to QED processes.

Light with different properties can be generated from this interaction – truly generating light from darkness, using no physical material at all!

This is a really challenging experiment testing the difference between classical and quantum physics predictions – our team will use the properties of twisted light and our quantum detector expertise to ensure it will succeed.

Slide 5

With lasers, unlike accelerators, the physics is determined by multi-photon processes, with a huge number of particles of very low energy.

ACRONYM is placed in this unique parameter space enabling us to explore uncharted domains for testing fundamental theories.

Slide 6

Previous experiments and ongoing efforts aim to explore other parameter regimes.

ACRONYM will not only explore a different space but also many configurations with exciting avenues for scientific discovery and technological development.

Slide 7

This is now possible due to the convergence of recent advances:

- The deployment and commissioning of multi-PW laser systems;
- The surge of Exascale computing and its combination with Machine Learning
- Recent developments in quantum technologies, that are revolutionising single photon generation and detection methods

Slide 8

ACRONYM builds on these advances and also on the know-how we've amassed in:

- Experimental laser physics, represented by BBBB
- State-of-the-art simulation, represented by CCCC
- Theoretical tools at the forefront of physics, represented by me

All of which can be seamlessly combined because we've been working together for more than 20 years

Slide 9

Our research is organized into 5 workpackages where we overlap and collaborate closely.

There's also a management workpackage, where key project decisions are taken, and risks are managed.

We'll gain input from and contribute to the scientific community via an International Advisory Board and a Community Engagement Panel, chaired by the Nobel prize winner Gérard Mourou.

I'll now handover to my colleagues to describe their elements of the ACRONYM programme.

BBBB, please.

Slide 10

Thank you AAAA.

This is an experiment I've been dreaming of for 20 years!

In that time, I've driven cutting-edge laser development, and built a network of the best engineers, quantum scientists and data analysts – some of whom were responsible for the discovery of the Higgs Boson!

At last, with the technology breakthroughs described, we now have the capability to carry this out.

We also have a European time window to be the first in the world, before the American and Chinese facilities come online.

I will lead the quantum detector design,

test a new structured light station and control system at the UK's central laser facility,

before going on to mount our system on our choice of one of Europe's best three lasers.

We will manage risk and open new scientific possibilities, by performing successively complex experiments at the frontier of light-light and light-matter interactions, to reach the pinnacle of ACRONYM's endeavour: detection of light-by-light scattering using intense laser pulses.

CCCC will oversee the simulation effort that supports this...

Slide 11

Thank you, BBBB,

[what my modest friend doesn't tell you is that he's just been awarded the Edward Teller Medal for his 30 years of pioneering research and leadership in laser experiments!]

We will establish a Virtual Laboratory for Extreme Light to mimic in silico and from first principles the experiments of ACRONYM.

This Virtual Laboratory will inform the experiments and open new vistas to other regimes and other ultra-high intensity laser experiments.

The scientific and technical challenges here are equivalent to those of the experiments:

- multi-dimensional configurations with classical structured light,
- multi-scale dynamics (exemplified by the classical fields interacting with and modifying quantum fields),
- and very low signal-to-noise ratio systems.

This requires:

- novel and optimized algorithms to quench numerical noise, and,

whenever possible,

- surrogate machine learning models or semi-analytical models to speed up the calculations.

This will be achieved in close interplay with the experimental developments and our theoretical effort in ACRONYM, led by AAAA

Slide 12

Thank you, CCCC.

From my side, we will be delivering the theoretical estimates to support experiments and simulations in these novel regimes involving structured light.

This includes determining:

- Cross sections and rates;
- Theoretical bounds on the processes;
- Fundamental tests of the theory.

The complex fields of structured light, far from the more standard calculations usually performed, push the theory to new directions on the physics of light-light and light-matter interactions and open novel theoretical possibilities and consequences.

Slide 13

For the success of ACRONYM it's important to bring our teams and the wider community together, promoting close interaction and discussion.

In this way, we ensure our own synergy is amplified to include young scientists and other applications.

Besides frequent video group meetings and seminars, we will organise annual workshops and retreats, open to all the community.

We will co-mentor our PhD students and post-docs, fostering their training and the growth of a strongly-linked community.

The experiments developed throughout the project will also be unique opportunities to bring everyone together,

to contribute, to discuss and to further enhance our community.

Slide 14

For us, ACRONYM is the peak of our research,

We will bring together the competences and the technology, with perfect timeliness for Europe.

Shining the light of our combined knowledge on the darkness of the extreme intensity frontier.

To bring about **truly historic breakthroughs**,

- exploring the transition between classical and quantum physics
- creating antimatter
- generating light from darkness

And thus pioneering a whole new field of ExaWatt physics

We are now looking forward to the discussion.

FIAT LUX!

Discussion

Thank you for your 10 minute presentation – if I were to ask you to condense that vision into two sentences what would they be?

Any why should we care about that?

You say you are detecting light-light scattering for the first time – but has this not been done at CERN & elsewhere?

What scientific questions will you be able to answer?

What communities will benefit from your work?

How will you ensure that they benefit?

Who are your competitors?

Why do you consider your approach better?

What would happen if you didn't get funded?

What would happen if we removed the €4M additional funds?

Can you explain the importance of the twisted light?

The spiral phase mirrors are a very new concept – how convinced are you that you will be able to get them to work as planned?

Are there competing focussing technologies for producing similar outcomes?

What are the challenges in the detector design? Why are you confident that can be achieved?

Can you explain the budget being spent at the Central Laser Facility? How do you know they have sufficient provision for what they are expected to deliver?

How will you choose the final experiment location?

What are the challenges in developing the virtual lab?

Who do you expect to use that beyond this project?

You have several very senior scientists in your virtual lab team – how are they all contributing?

How will you handle conflict amongst the team under your management – or indeed between you as PIs?

Who will be the international advisory board?

Who will be the community engagement board?

What are the challenges in the theoretical understanding?

The theory team is very dispersed – Oxford, Edinburgh, Plymouth, Gothenburg – what does each contribute and how will you direct their efforts?

How will you know when you have detected light-light-scattering?

You have 8 postdocs across the project team – what are they all doing?

How are you ensuring their career progression?

What do each of you consider the greatest risk in your management area?

How are you mitigating those? Do you have contingency?

What would success look like 1 year into the programme? 3 years? And at the end of the 6 years?

What would failure look like?

What outcomes do you think this work will have driven 10 years after the project end?

Any last closing statement?