A PERSUASIVE RESEARCH PROPOSAL: YOUR GOLDEN GATE TO SYNCHROTRON LIGHT SOURCES

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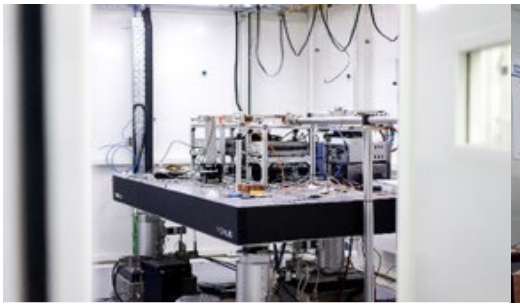
***ON LEAVE* FROM: DEPARTMENT OF PHYSICS,**
FACULTY OF SCIENCE, HELWAN UNI., CAIRO, EGYPT

General Lectures - April 2025 - First Edition

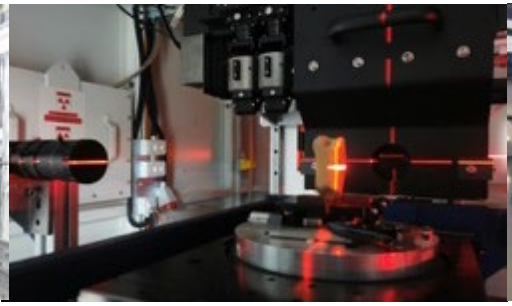
SESAME's Upgrading Network for Scientific user Training and Outreach into the Next Era



BM08 XAFS/XRF

BM02 IR

ID09 MS/XPD



ID10 BEATS

ID11L HESEB

+ ID12 TXPES

SESAME Operational Calendar

Real competition

<<Previous trimester | **IR** | Next trimester>>

April 2025				May 2025				June 2025			
Day	M	L	N	Day	M	L	N	Day	M	L	N
1				1				1			
2				2				2	20245120		
3				3				3			
4				4	20245117			4			
5				5				5			
6				6				6			
7				7				7			
8				8				8			
9				9				9			
10				10				10			
11				11				11			
12				12	20240111			12			
13				13				13			
14				14	20245045			14			
15	20240020			15				15			
16				16				16			
17				17				17			
18				18	20245078			18			
19				19				19			
20				20				20			
21	20240104			21				21			
22				22				22			
23				23				23			
24				24				24			
25				25				25			
26				26	20245064			26			
27	20240086			27				27			
28				28				28			
29				29				29	20245136		
30				30				30			
				31							

- Beamline Fault
- Beamline Preparation
- Commissioning
- Decay Mode
- Extraordinary Maintenance
- In House Research
- Machine Fault
- Machine Preparation
- Machine Shifts
- Machine commissioning
- Mail-in Shift
- Other Shifts
- Recovery shifts
- Scheduled shifts
- Shutdown
- System Start-Up
- Users Shifts

Beamtime Request Process

Preparation phase

Initial planning and resource gathering

Proposal writing

Drafting the detailed proposal

Proposal submission

Sending the proposal for evaluation

Proposal evaluation

Assessing the proposal's feasibility and quality

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Proposal Submission Process

Read the Guidelines

Familiarize with submission rules and deadlines

Check Eligibility

Ensure meeting application criteria

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Proposal Submission Timeline

Announcement of Call for Proposals

The initial announcement inviting submissions

Deadline for Proposal

The final date by which proposals must be submitted

Made with Napkin

Proposal Planning Timeline

Identify Deadlines

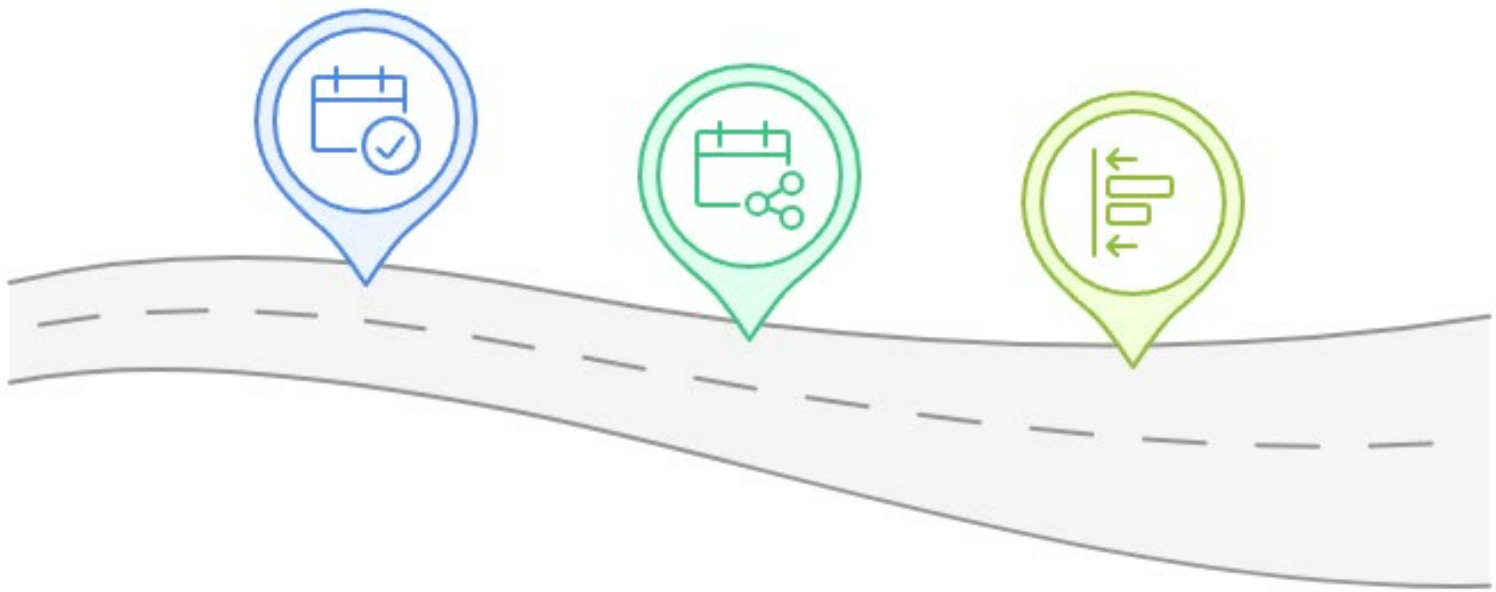
Recognize key submission dates for proposals

Integrate Deadlines into Planning

Incorporate deadlines into project timeline

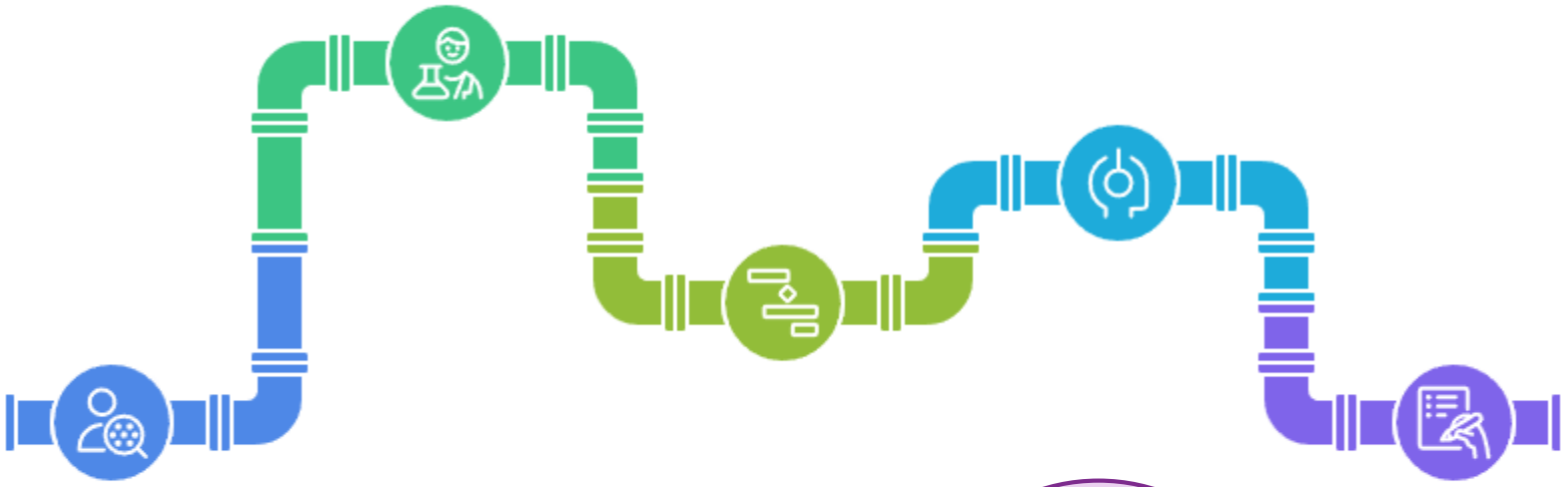
Adjust Timeline

Modify project timeline to accommodate deadlines



Made with Napkin

Planning a Synchrotron Experiment



01

Define Scientific Case

Establish the research question and objectives

02

Consider Experimental Approaches

Identify suitable synchrotron and methods

03

Define Experimental Plan

Detail the experiment, resources, and expectations

04

Contact Beamline Scientists

Discuss feasibility and seek advice

05

Write Beamtime Proposal

Draft the request for beamtime allocation

Beamlines, techniques, experimental set up, ..

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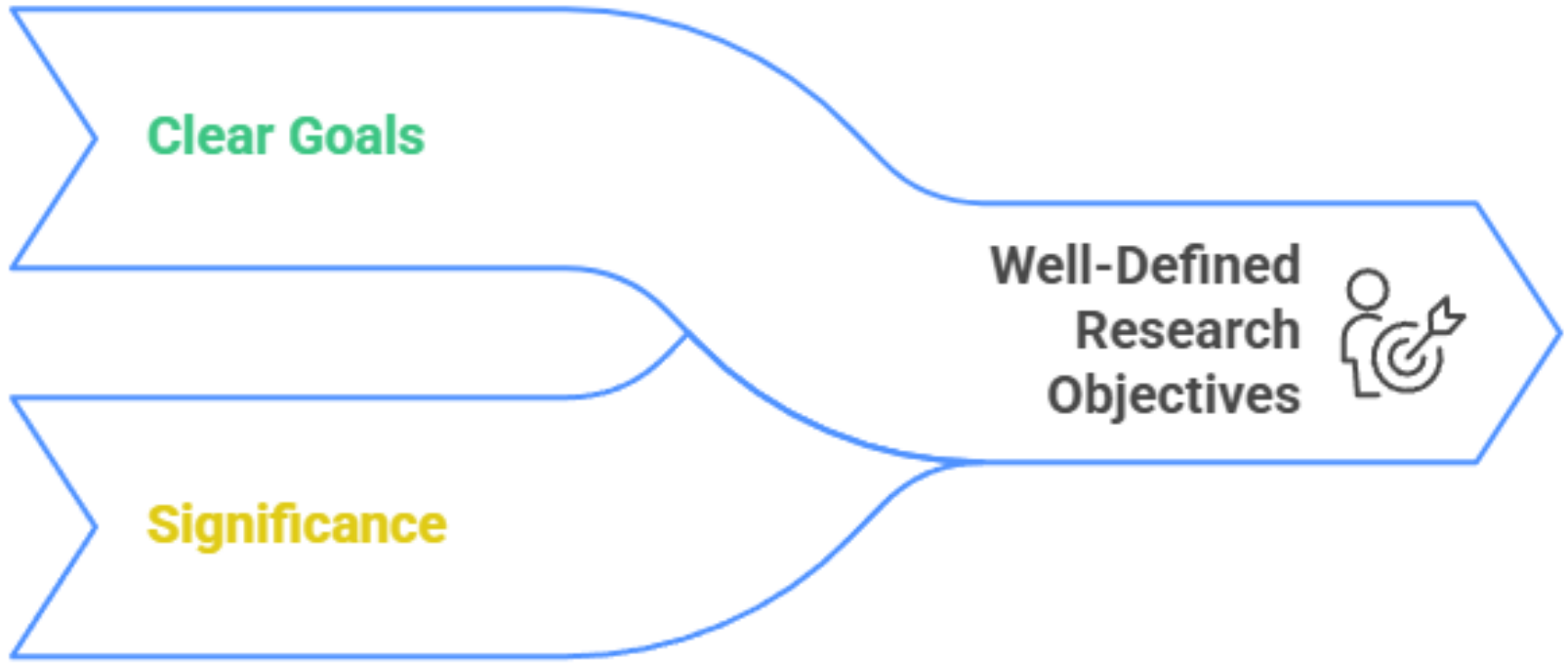
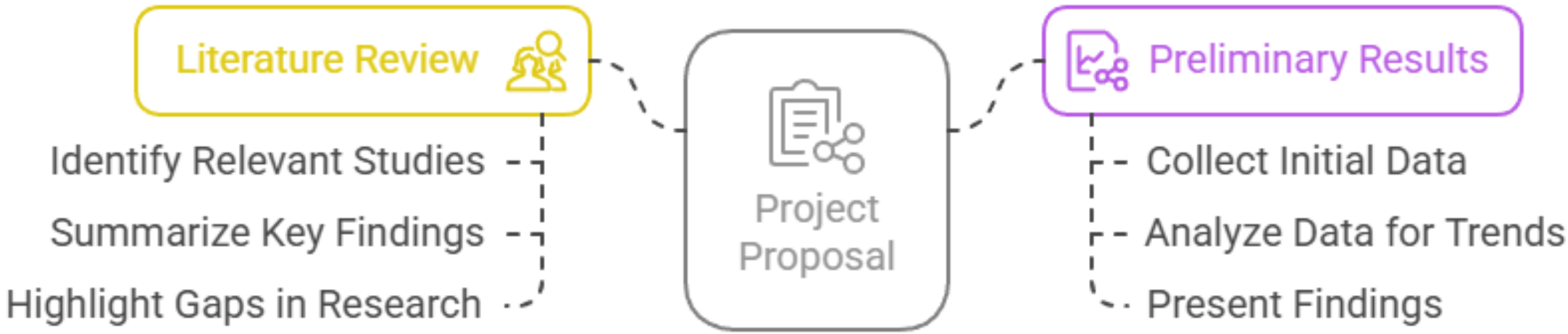
Crafting Impactful Research

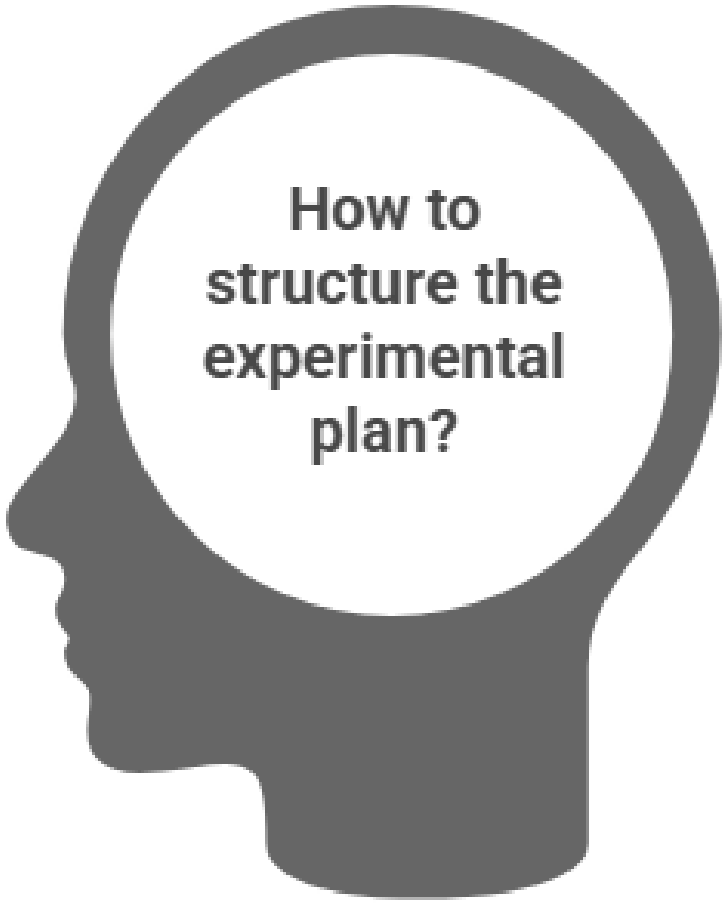
1 Clearly articulate the scientific goals of your research.

2 Highlight the research's importance and potential impact.



Project Proposal Components: Literature Review & Preliminary Results





Methodology

Outline the techniques and methods for the experiment

Beamline Selection

Justify the choice of beamline for research needs

Sample Details

Provide detailed information about the samples

How to plan the beamtime request effectively?

Select Synchrotron

Choosing the right synchrotron is crucial for obtaining the desired experimental results.

Determine Material Composition

Understanding the material's composition ensures compatibility with the chosen instruments.

Choose Preparation Technique

The preparation technique affects the sample's integrity and experimental outcomes.

Define Sample Conditions

Specifying conditions like temperature and pressure is essential for accurate measurements.

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Experimental Plan Sequence

01

Identify Measurements

Determine specific measurements to be taken

02

Estimate Duration

Assess the time required for each measurement

03

Identify Participants

List individuals involved in the measurement campaign

04

Analyze Data

Outline the methods for data analysis

05

Demonstrate Capability

Provide evidence of capability to conduct the experiment

06

Outline Timeline

Create a timeline for the experimental plan

Confirm feasibility: Highly recommended for the preparation phase

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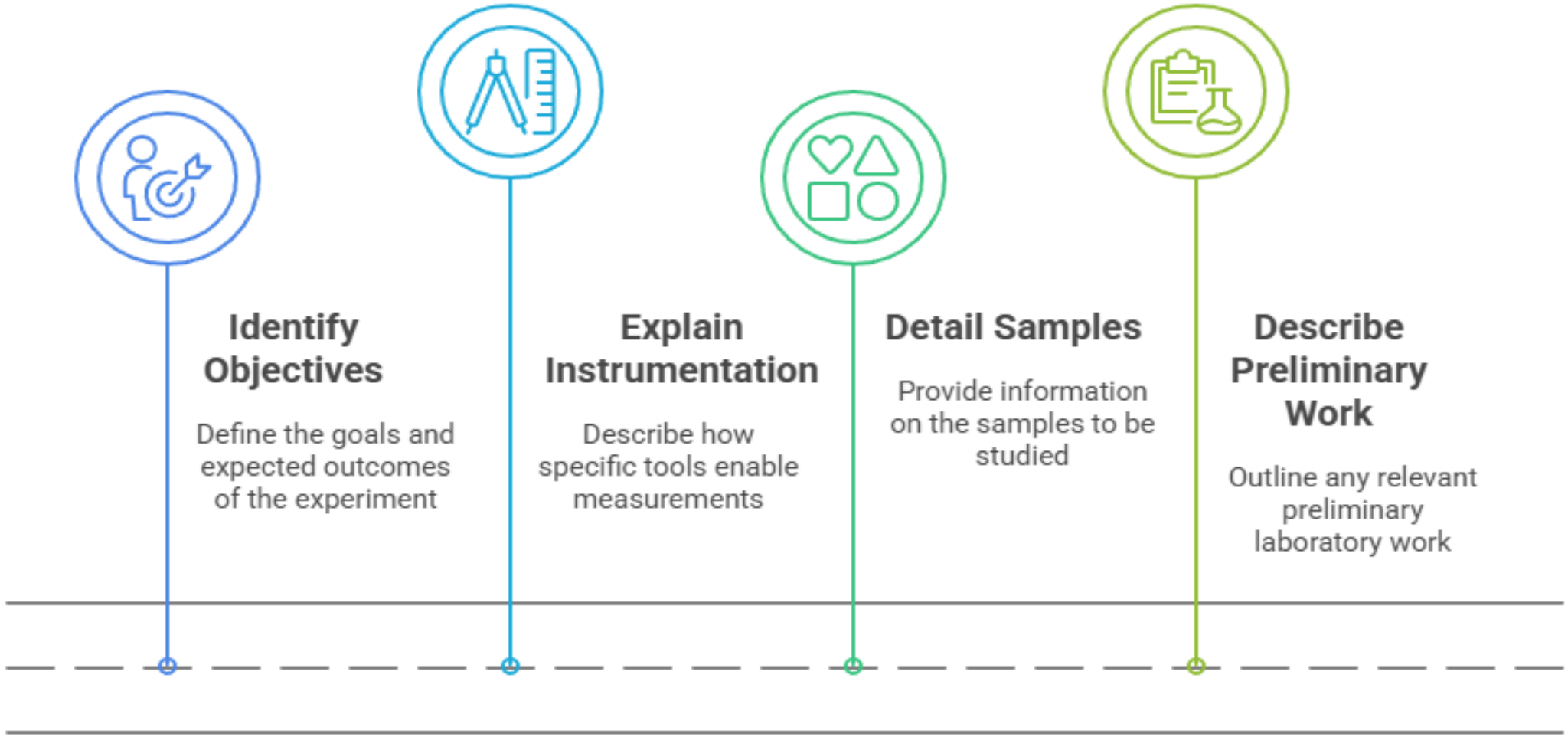
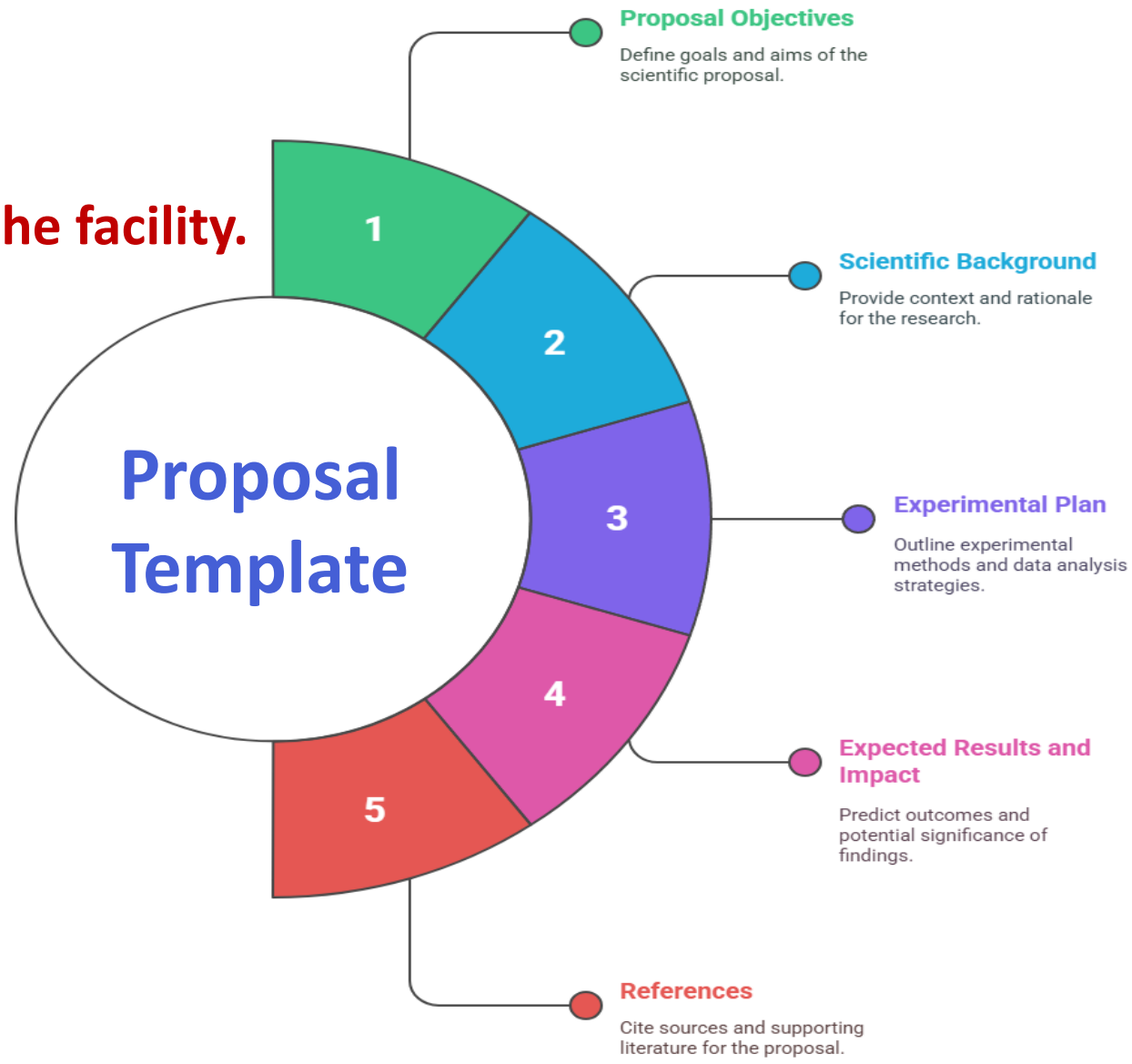
Experimental Procedure Sequence



Structure of the template provided by the facility.



The scientific rationale and the anticipated positive impacts on both scientific and societal advancement.

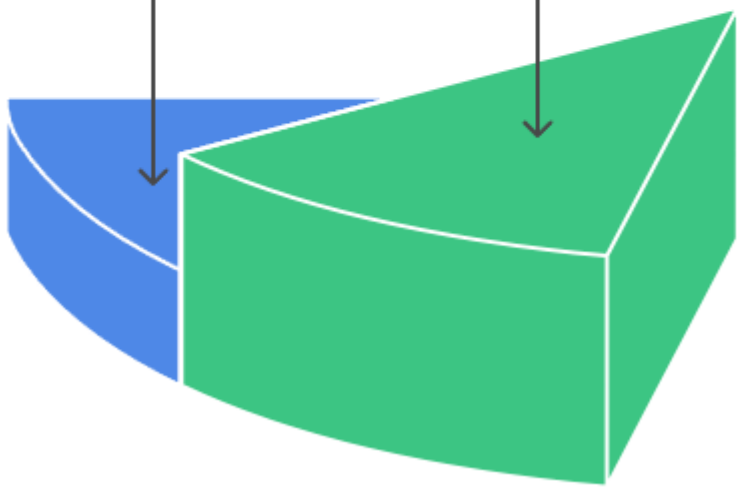
Steps to Effective Data Analysis

Data Analysis Plan

Develop a comprehensive strategy for analyzing collected data.

Expected Outcomes

Anticipate results and consider their implications for the project.



Steps to Effective Data Interpretation

Data Preparation

Organizing and cleaning raw data for analysis

Statistical Analysis

Applying statistical methods to extract meaningful insights

Interpretation

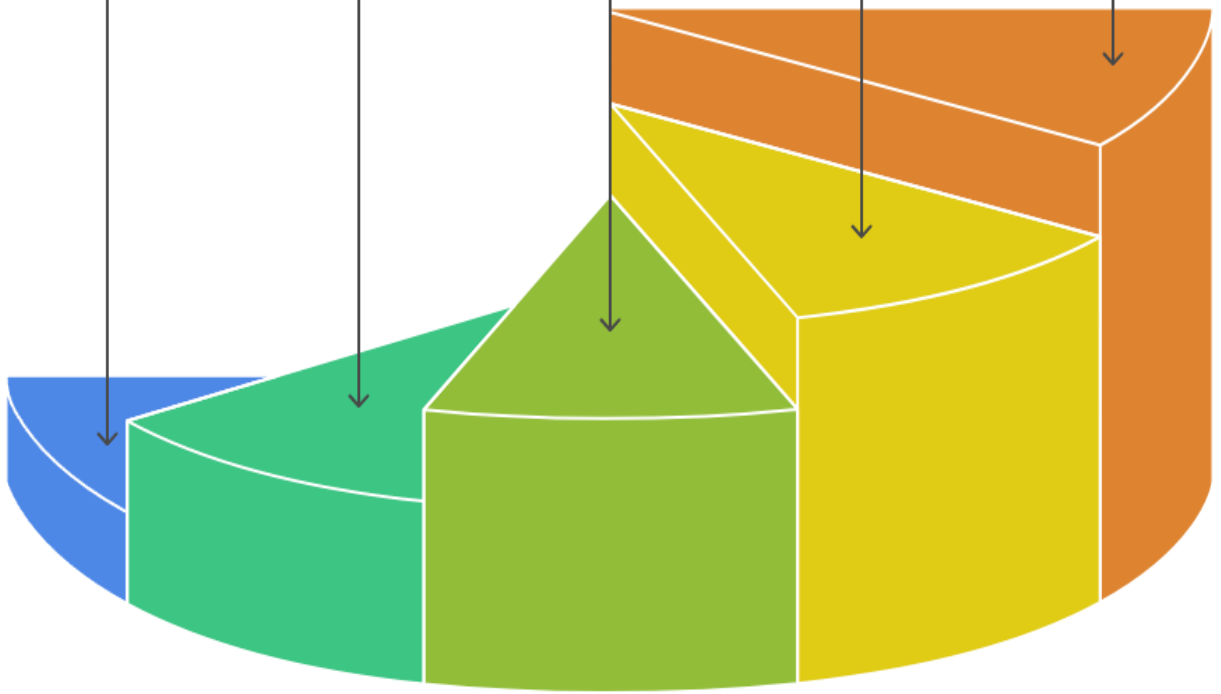
Understanding the implications of the analyzed data

Contextualization

Relating findings to existing knowledge and frameworks

Reporting

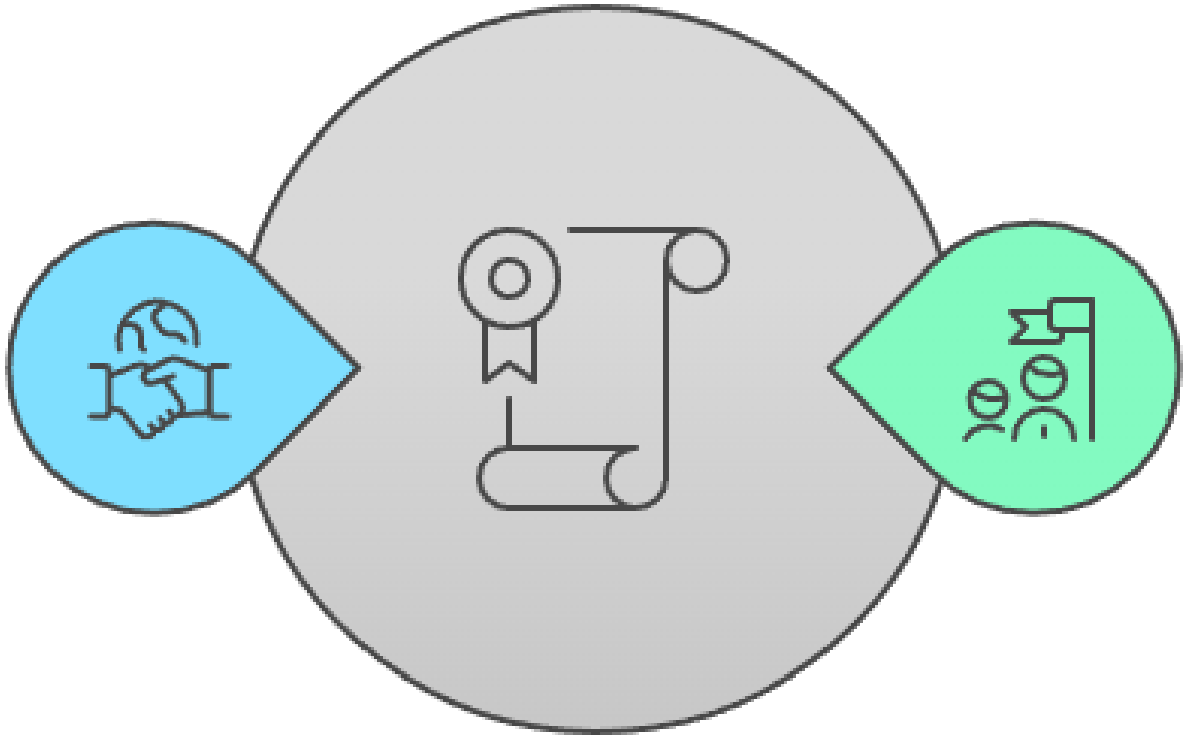
Communicating results clearly to stakeholders



Enhancing Project Credibility

Collaborations

Partnerships with other researchers or institutions



Team Expertise

The specialized skills and knowledge of team members

Project Financial Overview

Funding Sources

Identifies the financial backing for the project

Resource Allocation

Details the distribution of necessary resources

Highly recommended for the submission phase

Technical Feasibility

Ensure the experiment can be conducted

Safety Considerations

Address and mitigate any potential safety risks.

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Enhancing Proposal Quality and Compliance

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Results Definition Pyramid

Larger Vision

Broader impact and long-term aspirations

Realistic Goals

Practical and achievable objectives

Clear Results

Specific outcomes from the experiment

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Proposal Review Process

01

Proposal Submission

Proposals are submitted for review.

02

Technical Feasibility Review

Beamline scientists assess technical feasibility.

03

Proposal Assignment

Proposals are assigned to review committees.

04

Proposal Scoring

Proposals are scored by panel members.

05

Review Meeting

Reviewers discuss proposals, scores, and comments.

06

Time Allocation

Beam time is allocated to the best proposals.

BEAMLINE SCIENTIST + USERS OFFICE

SESAME PROPOSALS REVIEW COMMITTEE (PLEASE VISIT WEBSITE)

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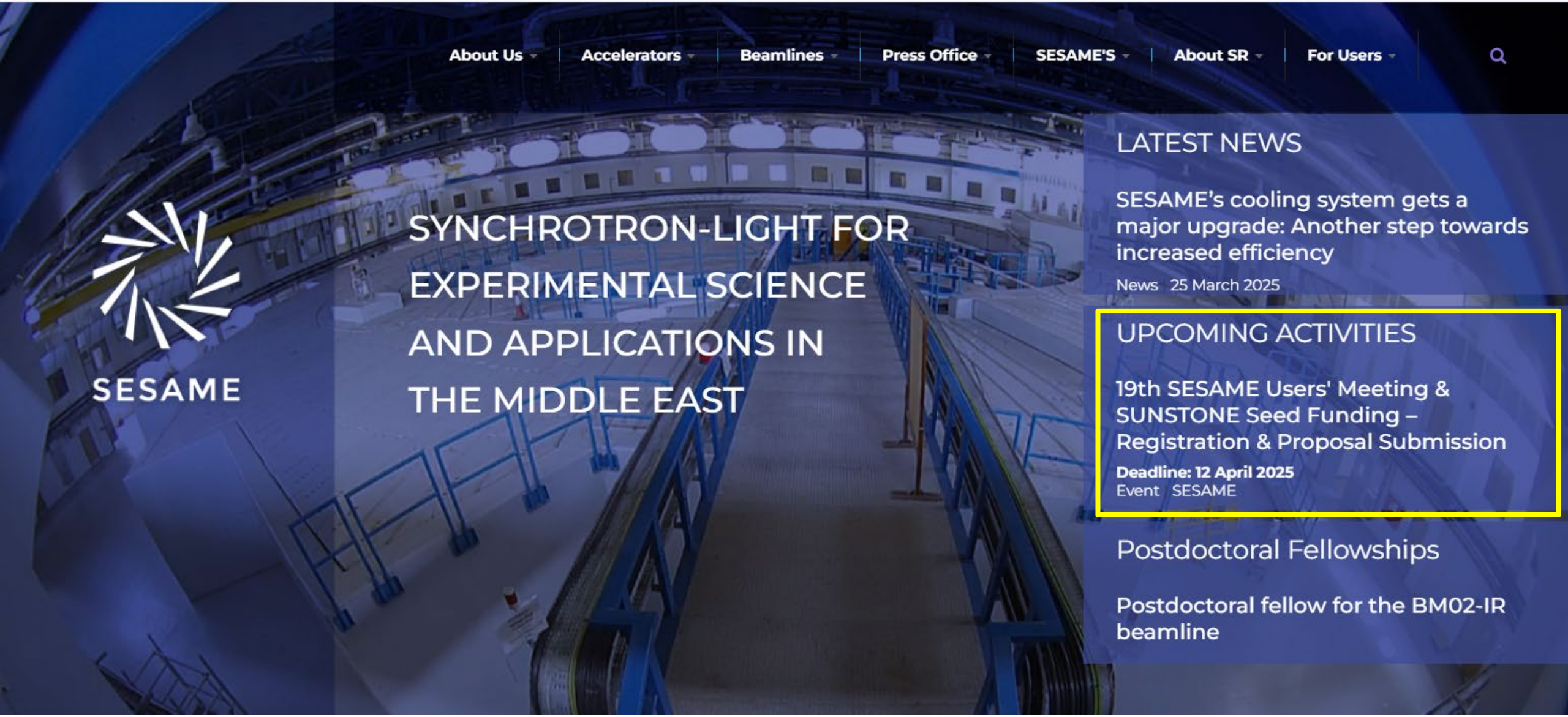

SUP - SESAME User Portal

SUP - Welcome to SESAME User Portal

The SESAME User Portal (SUP) is the general access tool to the experimental infrastructures of SESAME. Users already registered in SUP need **to login** in order to submit a proposal for beam time.

If you already have a user account, but you do not remember your identification code (User ID) and/or password please do not try to register again but click **here** to retrieve the lost information via e-mail.

New users wishing to submit a proposal need to **register** in SUP to obtain a user account. This is generated automatically by the SUP system, and the user receives an identification code (User ID) and password by e-mail.

SUP allows you to:

- update registration details
- submit proposals for beam time
- submit details of the samples, hazards and equipment for beam time sessions
- participate in a SESAME experiment as an experimentalist
- give user feedback - BEST (BEam time SaTisfaction)
- submit experimental reports and publications
- apply for funding
- book guesthouse rooms

The back and forward buttons of your browser are NOT TO BE USED when in SUP as this may result in duplicated data and/or problems or malfunctions.

In case of problems using SUP, please ensure that javascript is enabled in your browser.

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SUP - SESAME User Portal

Register

SUP - Register user privacy

I confirm that I have read, and accept, SESAME's **Privacy Policy** and its **Terms and Conditions for Peer Reviewed Facility User Access**.

I agree to my Contact Details and Personal Details being stored in the SUP database and to their being used by the database unit at SESAME for operational and administrative purposes. If necessary, they may be forwarded to other SESAME information systems, and my Contact Details may be used as outlined in SESAME's Privacy Policy.

I certify that I shall not undertake classified work for military purposes or other secret research at SESAME and that the results of my experimental and theoretical activities will ultimately be published or otherwise made generally available.

[Accept] [Reject]

SUP - SESAME User Portal

Log-in

SUP - Login to SESAME User Portal

Login

Please enter your User ID and Password

Username: [Login]

Password:

Notes:

1. *Password is case sensitive*
2. *Instead of your User ID, in the box "User ID", you may also enter the e-mail address you indicated in Contact Details when registering as a user.*

In case of questions please do not hesitate to ask for help.

SESAME User Policy

The SESAME User Policy lays down the conditions that govern the use of the Centre's facilities. It defines *inter alia* conditions for access to the Facility, the definition of different types of use and users, criteria for selecting proposals, and procedures for applying for beam time and selecting proposals.

The SESAME User Policy was adopted at the 28th meeting of the SESAME Council in May 2016. Amendments were introduced at the Council's 37th meeting in December 2020 and 44th meeting in May 2024.

https://www.sesame.org.jo/for-users/user-guide/sesame-user-policy

Two Calls for Proposals/year

MUST FOLLOW THE SUBMISSION INSTRUCTIONS

Online form on the SUP
The completed proposal's template

Start "Editing"
Save in "Editing" phase
>> "Submission" phase

Please respect the deadline!

Proposal's online form on the SUP

View Proposal

Facility	SESAME
Proposal Number	20190040
Proposal Title	Comparative biochemical analysis of different tick tissues using SR-FTIR Microspectroscopy
Proposal Objectives *(min 30 characters) max 3000 characters*	• Comparative biochemical analysis of salivary gland and gut tissues of semi-fed adult tick genuses; Rhipicephalus and Hyalomma. • Studying proteins structures (basically secondary structures, assessing them quantitatively, conformational changes monitoring, etc.) of the same samples. • Measuring chemical maps of tissues of different tick genuses; Rhipicephalus and Hyalomma. • Interpretation of the obtained data as a clue to choose the best tissue that could be used as vaccine antigen against diverse tick species and/or used as unique taxonomical features between different tick genus and/or species.
Proposer	(2298) HENDAWY Seham, Email: shendawy2006@yahoo.com
Submission Date	15/01/2020

Experimental Requirements

Beamline local contact	(1049) KAMEL Gihan

Proposal Category	
User Category	General user
Industrial involvement	No
Financial support request?	No
Travel support is crucial?	
Proposal Category	New
Previous Proposal Number	
Application Category	
Discipline	Life Sciences & Biotech
Specific discipline	Veterinary sciences

Experimental Requirements	
Beamline Required	IR
Alternative beamline required	
Shifts required	12
Electron Beam Requirements	
Photon Energy (eV)	0.001-3 eV
Photon Energy Resolution (eV)	
Other requirements	

BEAMLINE SCIENTIST

Sample environment/treatment
Sample Treatment
Available Equipment
Additional Equipment
Offline Facilities

Participants		
Participant	Institute	Address

ALL CO-PARICIPANTS MUST BE REGISTERED ON THE SUP

Safety Forms		
	Substance	Printable Format
[Select]	gut and salivary gland tissues of ticks	

CONVERTED INTO A PDF FILE

FOR ASSESSMENT BY THE SAFETY OFFICE

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SAFETY ONLINE FORM

MUST COMPLETE PROPOSAL'S FORM (AND UPLOAD)

Sample(s) and chemical substance(s) to be used in this experiment	
Substance	gut and salivary gland tissues of ticks
CAS registry number (Get CAS number)	
Supplier	National Research Centre
Chemical formula	biological tissues
Physical state	Multilayer
Other physical state	
Size (in mm^3)	5
Mass (in mg)	1
Sample container (capillary, flat plate, pressure cell, etc.)	Eppendorf tubes
Surface area (in mm^2)	
Space group (if known)	
Unit cell dimensions at	T: a= b= c= alpha= beta= gamma=

Safety aspects	FOR ASSESSMENT BY THE SAFETY OFFICE
Volume of cylinder to be used (in cm^3)	
Pressure of gas in cylinder (in mbar)	
Risk in sample, preparation or equipment	No
Radioactive	No
Corrosive	No
Contaminant	No
A biological hazard	No
Toxic	No
Oxidising	No
Combustive	No
Cancerogenic/mutagenic/teratogen	No
Inflammable	No
Explosive	No
Exhaust disposal conditions	
Sample disposal: Afther the experiment the sample will be	Removed by user

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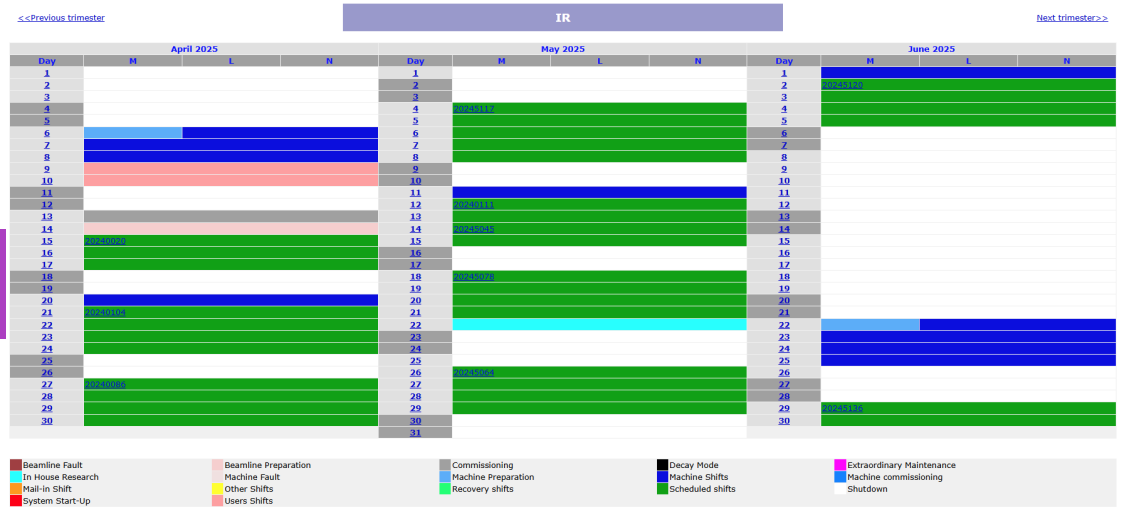
CONGRATULATIONS IF YOU APPEAR HERE!



Your Proposals

Already submitted proposals

BEST(BEam time SaTisfaction)

Achievements on a past proposal.

A brief textual report of the experiment results. This information is necessary for EU supported proposals and also to submit the "Experimental report"

Experimental report on a past proposal.

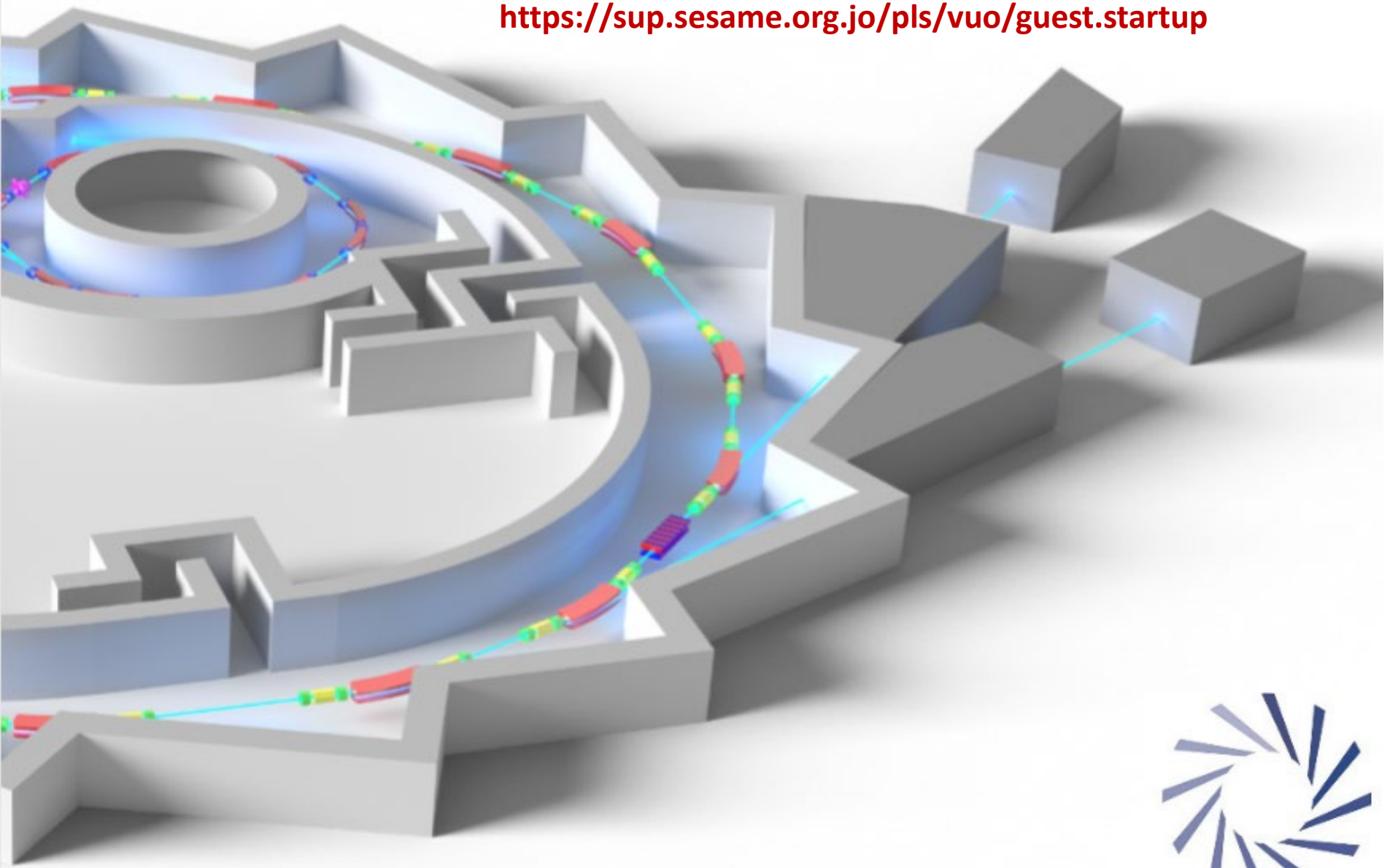
More detailed information about experiment results in rtf/pdf formats. (This report will be used for evaluating future proposals)

TIMELY PUBLICATION!!

REMEMBER THE BEAMLINE SCIENTISTS AND PRC!

SESAME Users Portal (SUP)

https://sup.sesame.org.jo/pls/vuo/guest.startup



Thank you!

gihan.kamel@sesame.org.jo

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