BioPhoT Platform Innovation Project (PIP) 2nd call Results Analysis Seminar

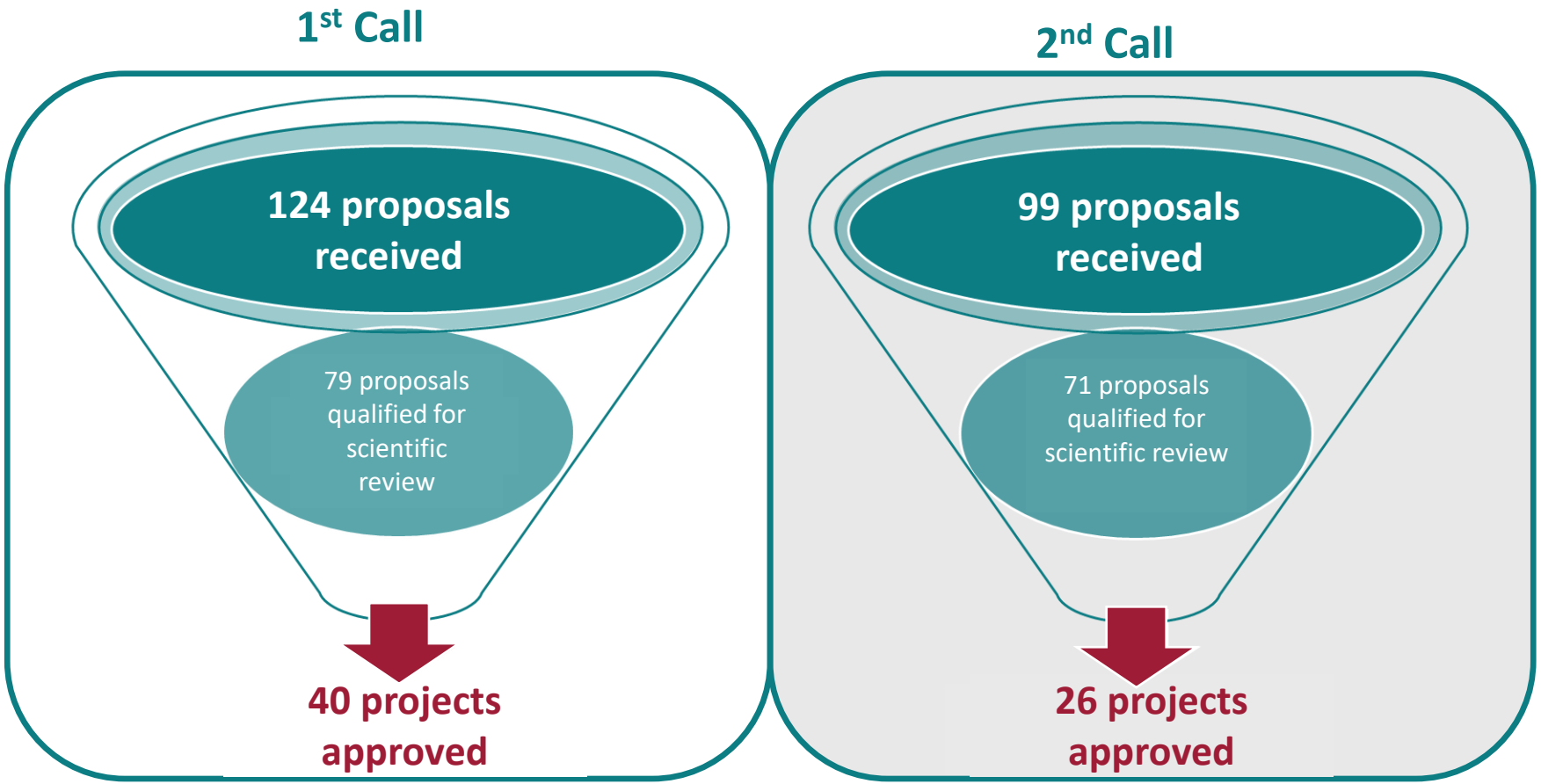
February 24, 2026

Long-term national research program project “Biomedical and photonics research platform for creating innovative products ” No. IVPP-EM-Innovation-2024/1-0002

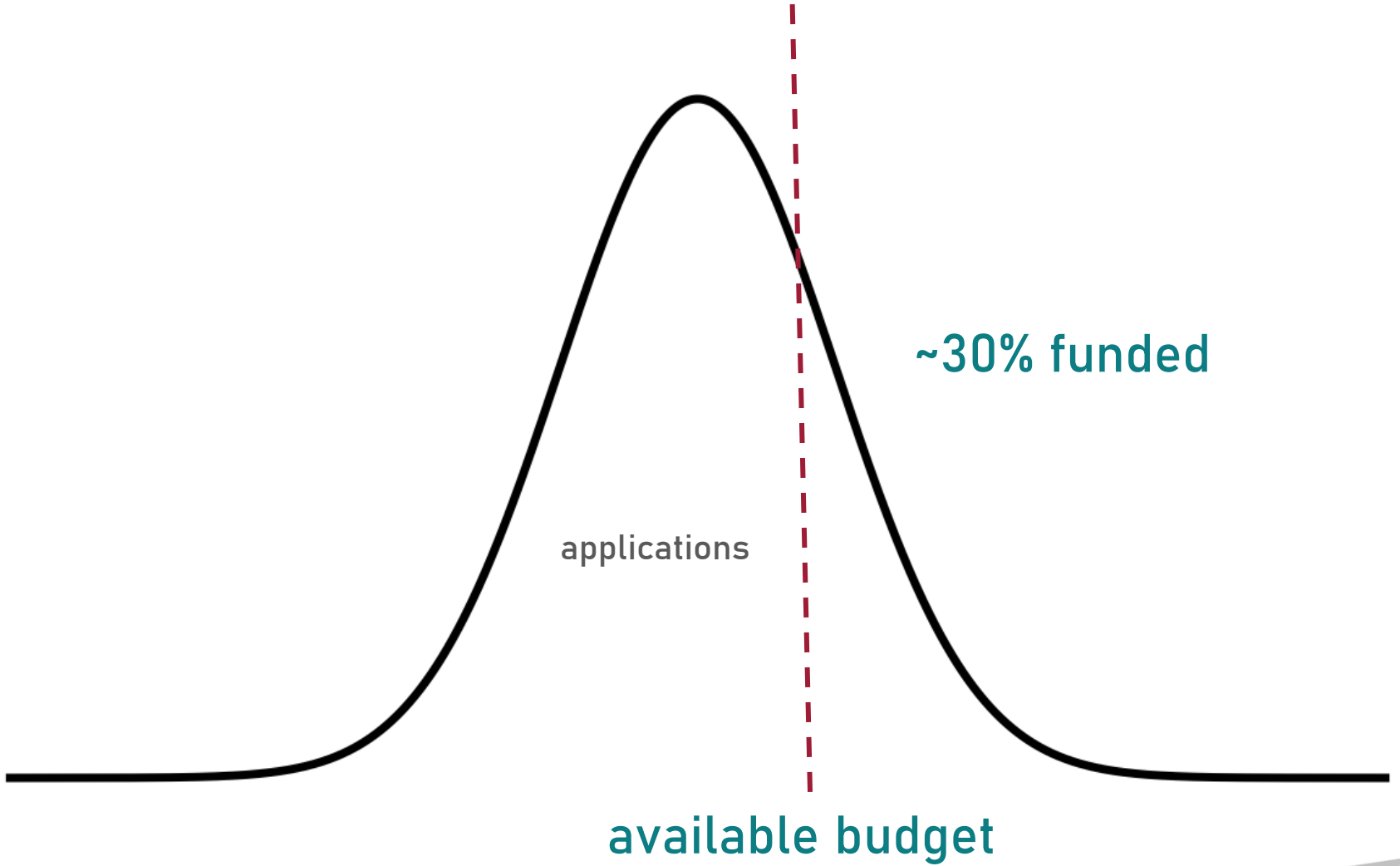
Agenda

- **Opening remarks** / Dace Kārkle
- **Results Analysis** – statistics; strengths and weaknesses of the applications; lessons learned; PIP survey questionnaire; recommendations for the next call / Andris Baumanis, expert panel representatives: Tamar Raz and Daniel Carew
- **Q&A session**

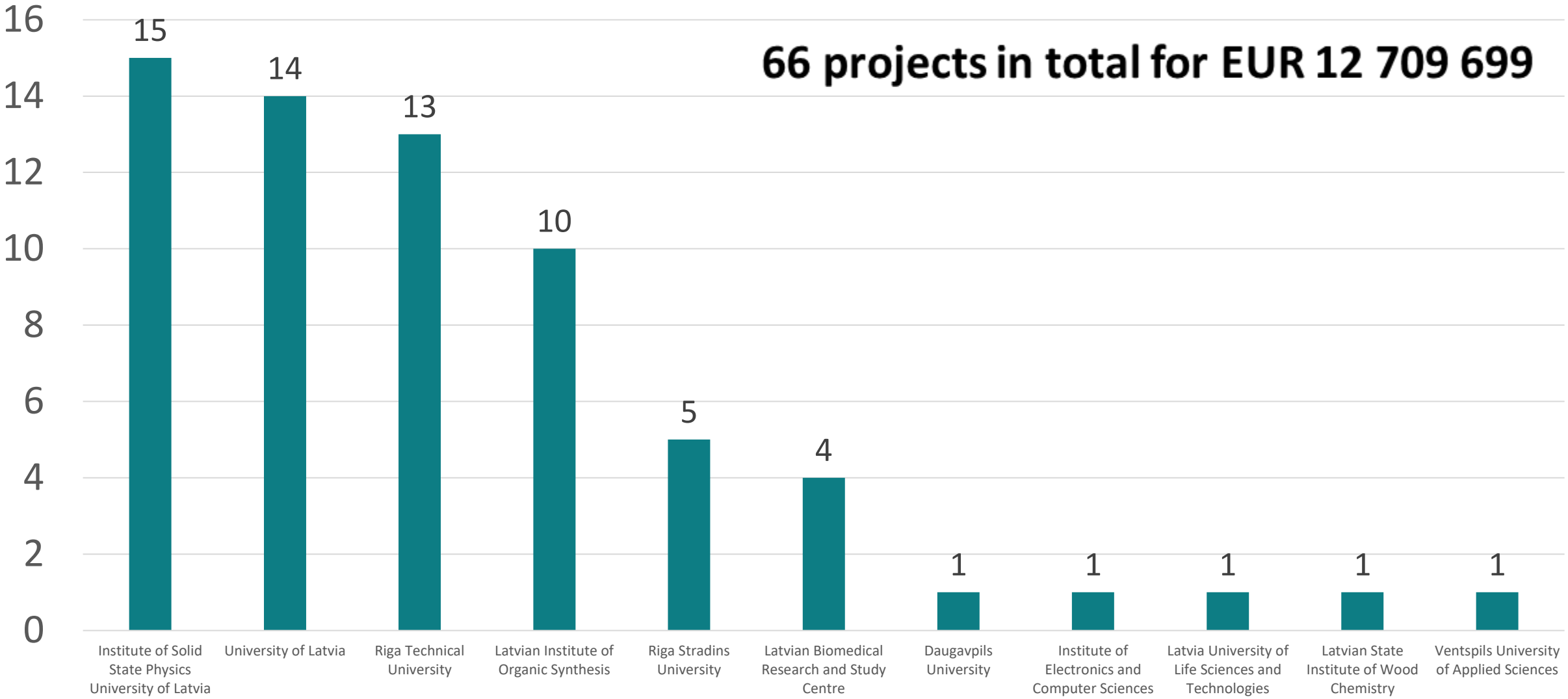
1st Call vs 2nd Call



Reasonable competition



Summary of projects, 1st and 2nd round



BioPhoT next steps

- ✓ BioPhoT midterm report submitted
- ✓ Positive opinion of the Ministry of Economics about 2027 – 2029 period
- ✓ No budget confirmation yet

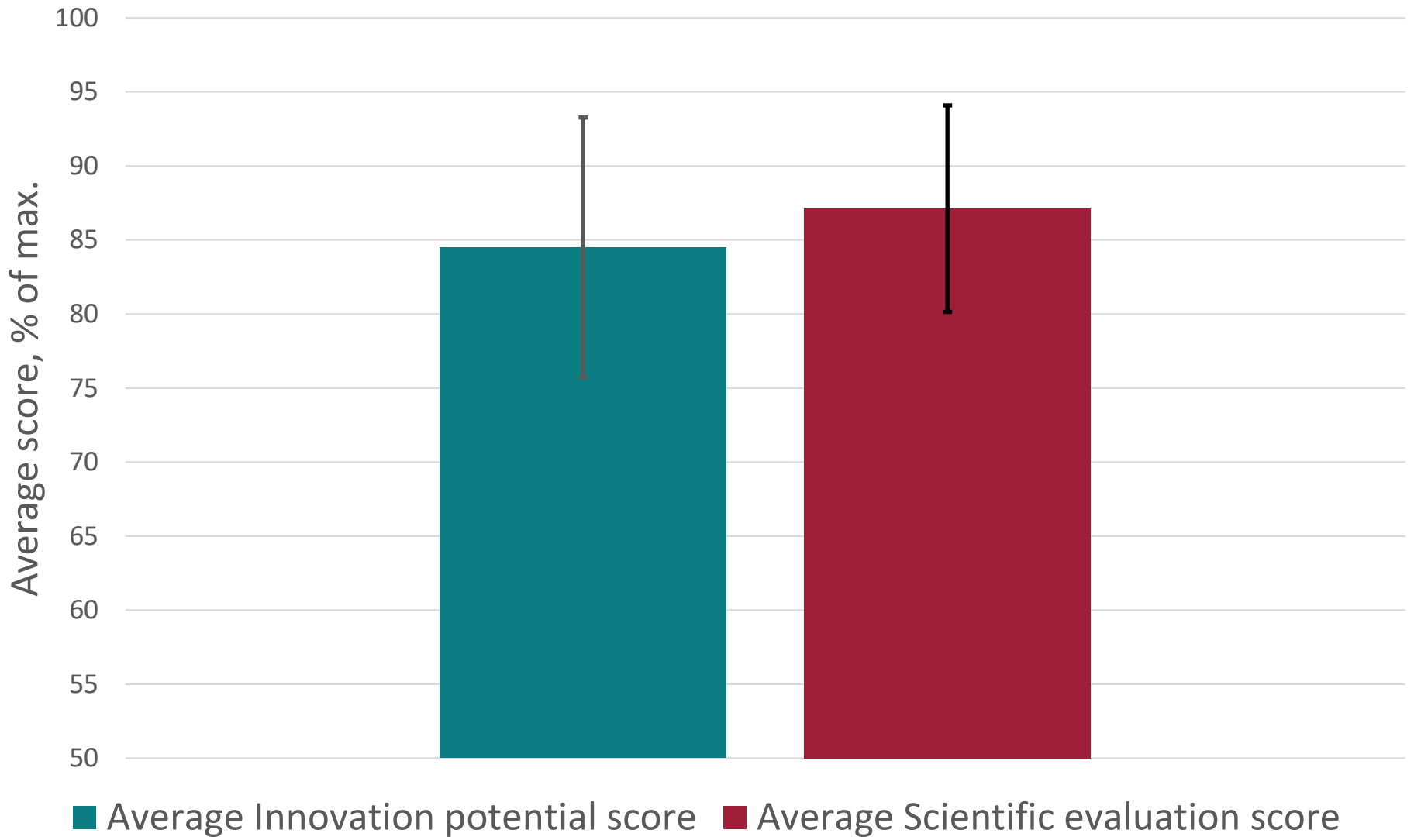
Recommendations implemented

Long submission and evaluation **process**, inefficient way of exchanging information via **emails**	✓ **One application instead of two** project applications ✓ Preparation period reduced **from 40** working days **to 25** ✓ **Centralized submission of applications** to the National Research Data Information System (NZDIS) ✓ **Communication** via **NZDIS** ✓ **One** assessment instead of **two** administrative compliance assessment stages ✓ The length of the scientific description has been reduced **from 12 pages** to **6 pages.** ✓ The duration of the scientific evaluation has been shortened **from 10** weeks **to 8** weeks
Insufficient feedback with a panel of industry experts	✓ **Two panels** of industry experts, applicant receives **an expanded consolidated assessment** ✓ The initial **level of technological readiness is recorded by the mentor** and project manager

2nd Call Project Applicants

Research organization	Number of applications	Budget
Riga Technical University	26	4,887,000
University of Latvia	20	3,769,050
Riga Stradins University	11	1,960,275
Latvian Institute of Organic Synthesis	11	2,080,000
Institute of Solid State Physics, University of Latvia	11	1,960,859
Latvian Biomedical Research and Study Center	8	1,520,000
Institute of Electronics and Computer Sciences	5	831,050
State Institute of Wood Chemistry	1	190,000
Institute "BIOR"	1	80,000
Daugavpils University	**1**	Withdrawn
Latvia University of Life Sciences and Technologies	**1**	108,000
Ventspils University of Applied Sciences	**1**	159,000
Jāzeps Vītols Latvian Academy of Music	**1**	Submitted after the deadline
Vidzeme University of Applied Sciences	**1**	189,326
Total:	**99**	**17,734,560**
Available budget		**4,825,000 (27%)**

Innovation potential vs scientific evaluation



2nd Call Evaluation Methodology

SIX EVALUATION CRITERIA

- Problem relevance
- Solution competitiveness
- Market identification
- Team
- Work plan and budget
- Commercialization strategy

For each criterion:

- Short title
- Score: 0 to 3 points
- Explanatory description

Expert Focus:

- Problem/Solution alignment
- Commercial potential
- Uniqueness and novelty
- Team composition and potential to deliver the results

Maximum possible score: 16 points

Qualification threshold for Stage 2:

- At least 9 points in total
- Minimum score of ≥ 1 point in each individual criterion

Industry Expert panels

General Technology Panel
from December 2 to 3

Julien Venturini

Ph.D. in Physics - Optics and Photonics, EMBA, MBA; B-Corp leader, high-tech entrepreneur with successful exit, regenerative business practitioner, CDL representative.

Ilya Zabelinsky

B.Sc. Chemical Engineering; 25+ years experience at Intel Corporation; Founder of International SubFAB Research Labs; Expert in SubFAB facilities and infrastructure.

Daniel Carew

Ph.D. in nanotechnology and materials chemistry; B.Sc. in applied sciences and engineering; early stage investor and board member in deep tech and defence start-ups.

Life Sciences Panel
from December 9 to 10

Dr. Barak Azmon

MD, Ophthalmology; founder of medical technology and pharmaceutical companies; innovator in ophthalmic diagnostics; venture capital partner in early stage medical technologies; senior consultant and advisory board member.

Tamar Raz

Ph.D. in Biology; Life Sciences Executive with over 20 years of experience in business development, technology transfer and alliance management;

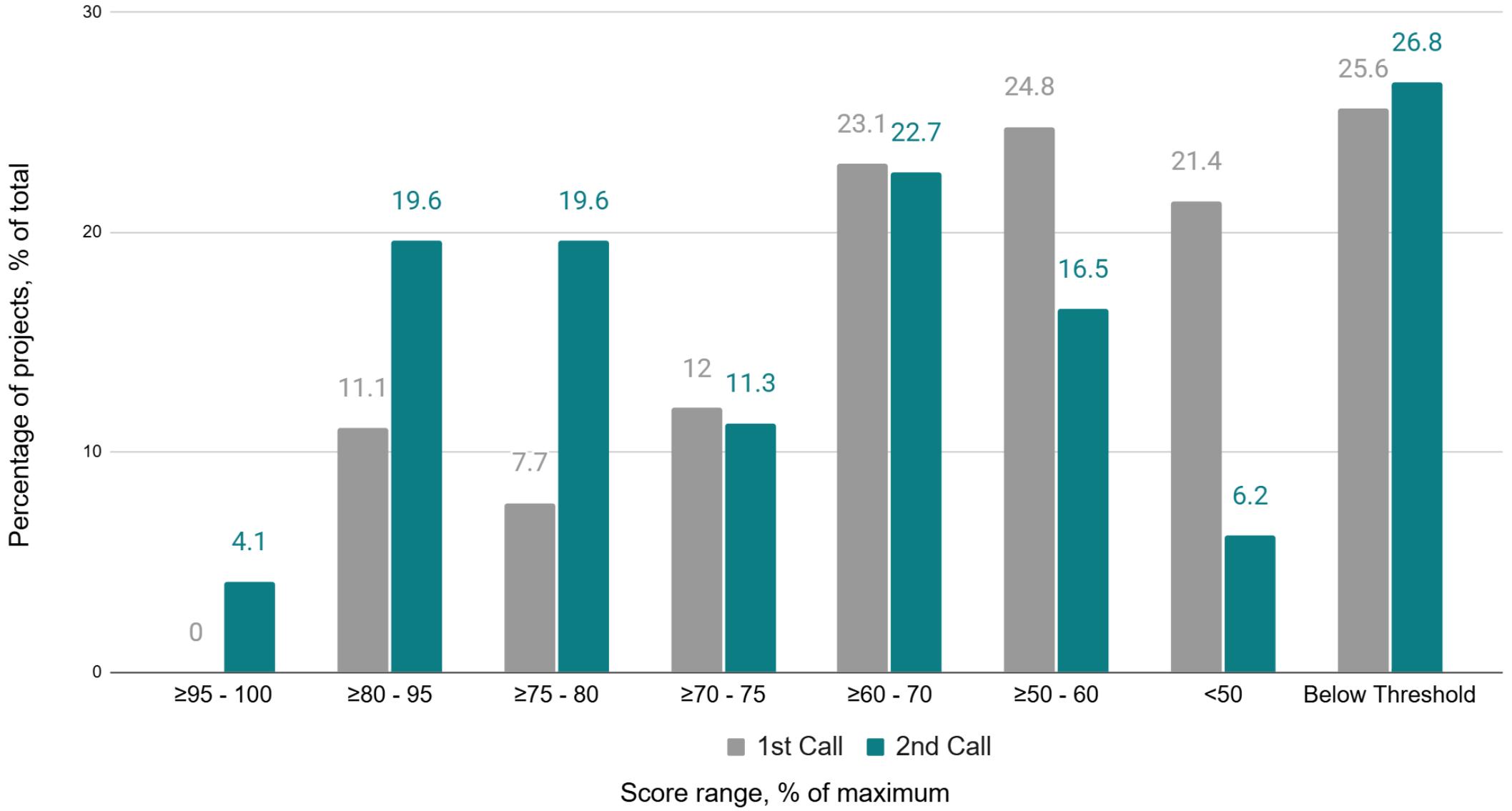
Ori Choshen

MBA (cum laude), Solvay Business School; LLB and B.A. in Philosophy (cum laude), Tel Aviv University.

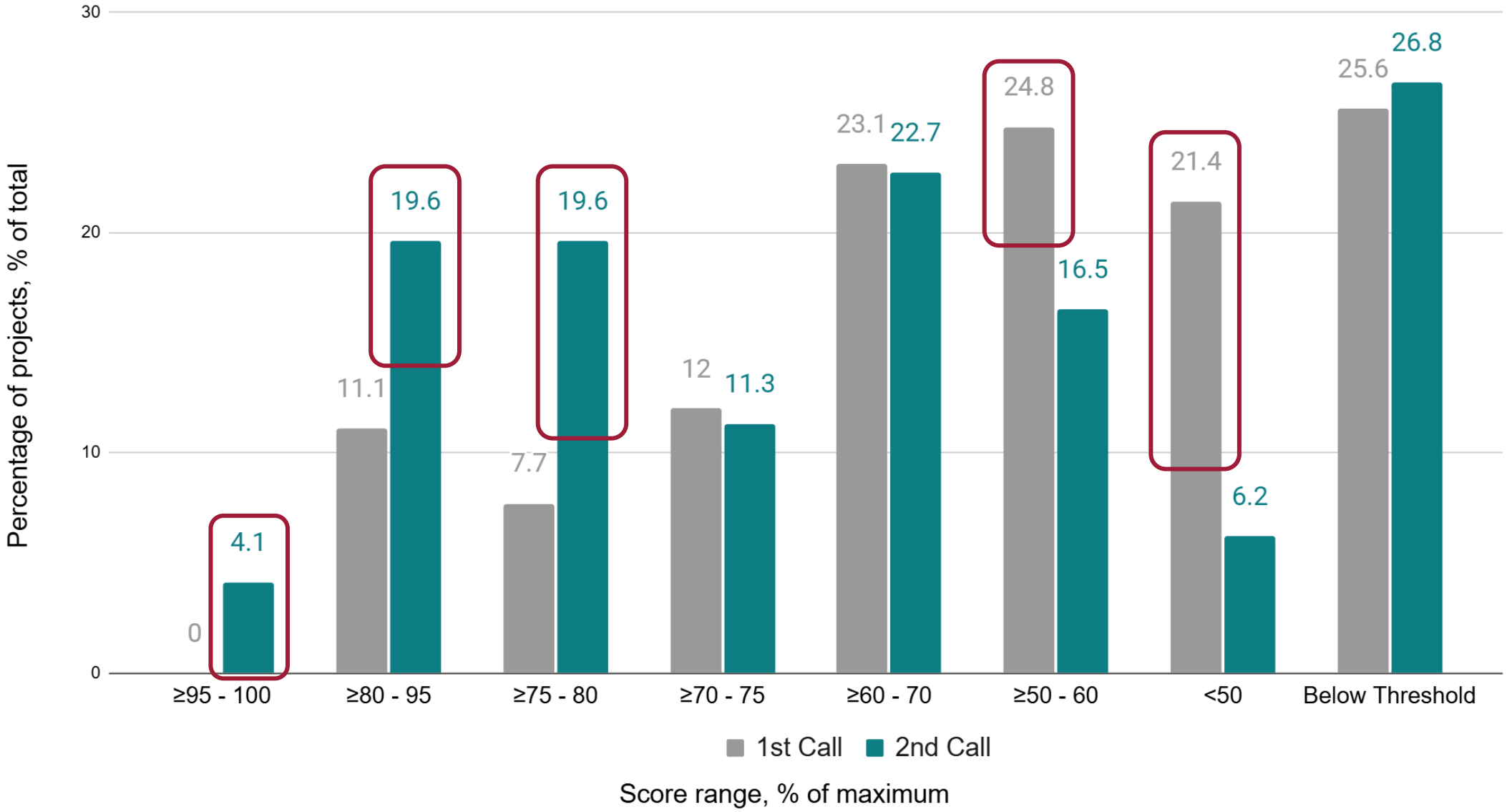
Matīss Neimanis

Managing Partner and CEO of Buildit Latvia, a venture capital fund and accelerator

Results comparison: first vs second call



Results comparison: first vs second call



Results by panels

Number of applications evaluated		
	General technologies	Life science technologies
Submitted	48	49
Qualified	37	33
Low-threshold applications	11	16
Average ratings in panels		
Problem relevance	1.69 (85%)	1.69 (85%)
Solution competitiveness	1.90 (63%)	1.87 (62%)
Market identification	1.93 (64%)	1.96 (65%)
Team	2.28 (76%)	2.52 (84%)
Work plan and budget	1.98 (66%)	2.34 (78%)
Commercialization strategy	1.30 (65%)	1.16 (58%)

Results by applicant

Project applicant (number of applications)	Problem relevance	Solution competitiveness	Market identification	Team	Work plan and budget	Commercialization strategy
Institute of Electronics and Computer Sciences (5)	1.75	2.00	2.31	2.44	2.38	1.25
Institute "BIOR" (1)	1.75	2.00	**2.50**	2.25	**2.00**	1.50
UL Solids physics institute (11)	1.75	2.31	**1.94**	2.61	2.44	**1.56**
Latvian Biomedical Research and Studies center (8)	1.75	2.38	2.00	2.44	2.31	1.50
Latvia Organic syntheses institute (11)	1.91	**2.44**	2.34	2.56	2.31	1.53
Riga Stradins University (11)	1.75	1.75	2.11	2.57	2.11	1.25
Riga Technical University (26)	1.77	2.01	2.22	2.41	2.15	1.41
University of Latvia (20)	1.85	2.27	2.17	2.40	2.38	1.42
Ventspils university (1)	1.75	1.75	2.00	**3.00**	**2.75**	1.25
Vidzeme university (1)	**2.00**	2.00	2.00	2.50	2.50	1.25
State Institute of Wood Chemistry (1)	**1.50**	1.75	2.50	**3.00**	2.25	**0.75**
Latvian University of Biosciences and Technology (1)	1.50	**1.25**	**1.25**	**1.25**	**1.75**	**0.75**
Average across all applicants (% of maximum)	**1.69 (85)**	**1.89 (63)**	**1.95 (65)**	**2.40 (80)**	**2.16 (72)**	**1.23 (62)**

Challenges

Assessment criterion	Average score, % of maximum
1st Call	
Advantages of proposed solution	52
Market (application) identification	53
Preliminary budget plan	57
2nd Call	
Novelty and relevance	63
Market (application) identification	65
Commercialization strategy	62

EIC Tech Report / Scaling Deep Tech in Europe: Failure factors

- Weak go-to-market strategy in science-led startups
- Overengineering before market validation
- Fragmented European market access
- Late-stage capital shortage
- Public procurement barriers

Daniel – General Technology

Background

- Engineer, PhD, 12 years doing early-stage VC (spin-outs to Series A) in deep tech, across EU, US – 40+ investments, 6 unicorns, Partner at Defence VC fund

Approach

- With this small amount of money, what will give the maximum economic return/jobs for Latvia?

Positives

- Collectively, very impressive science – at top EU level, *eg.* Univ. Cambridge, EPFL
- Partial business dev person in team – not seen this before in EU/UK, better commercial results than with Academic spin-out teams elsewhere, *eg.* UK
- Excellent talent in the teams
- Some very novel and impressive commercial opportunities presented

Daniel – General Technology

Areas for Improvement/ Suggestions for Future

- Some teams treating program as an academic grant; commercial window dressing on a research project.
  - Commercial feedback cannot be faked, very easy to see
- Insufficient knowledge on IP protection; for some cases, commercial partners were taking all commercial benefits and owning the final product
  - Workshop/get feedback on IP strategy
  - Do not work on product that is owned by someone else
- Some teams lacked interest to export, solely focused on Latvian market, which will fail to get further investment
  - No EU market is big enough for a sizeable tech business, describe at the beginning how you're thinking beyond Lativa
- Does Latvia already have a strength that you are using/amplifying?
  - Why does being in Latvia give you an advantage? *eg.* Fly-ash in concrete

Tamar – Life Sciences

Problem Definition and Market Potential
The problem definition and market opportunity should be demonstrated on a global scale, rather than being limited to Latvia or the Baltic region.

Current Technology Status
The projects actual stage of development must be clear, to include preliminary data so far.

Intellectual Property (IP) and Patents
Teams should be familiar with basic IP principles and be able to preliminarily assess the novelty and protectability of their innovation.

Tamar – Life Sciences

Intellectual Property (IP) and Patents

Patent protection process in long and expensive, but a must have for most medical products
If planned right, work plan can include activities to improve patent position

Examples

IT, AI, Data, Mobile Applications

Clear definition of the final product that can be protected by a patent.

Known genetic screening, data collection, software or kit that will be easy to modify

Molecules, Combination of Molecules

New Chemical Entity (NCE); New combination of known molecules that can be patented

New use of a known molecule. Must be checked for patentability and for "off the shelf" risk

Tamar – Life Sciences

Expected Outcomes at the End of the Funding Period
Clear final deliverables need to be defined for the end of the funding period. ~~(TRLx - TRLy)~~

Commercialization Plan
Commercialization pathways were not sufficiently defined nor understood.

Tamar – Life Sciences

Commercialization Plan

Short Term Commercialization Plan

- Clear work plan for the next stage – Years 1&2 following the BioPhoT funding
- Possible sources for next stage funding
- Basic understanding of the 3 W questions:
  - What is your product
  - Who will buy your product
  - Who will produce your product

IN EARLY-STAGE PROJECTS, ASKING THE RIGHT QUESTIONS IS MORE IMPORTANT THAN HAVING ALL THE ANSWERS

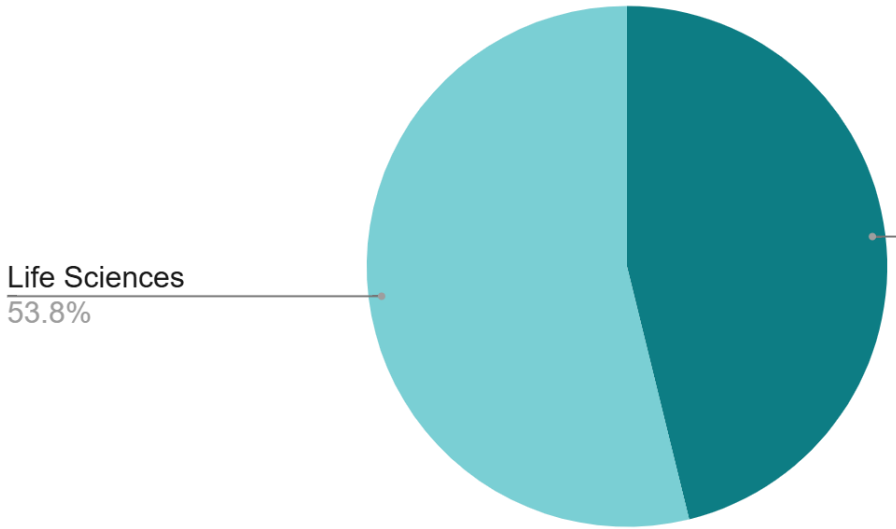
Long Term Commercialization Plan

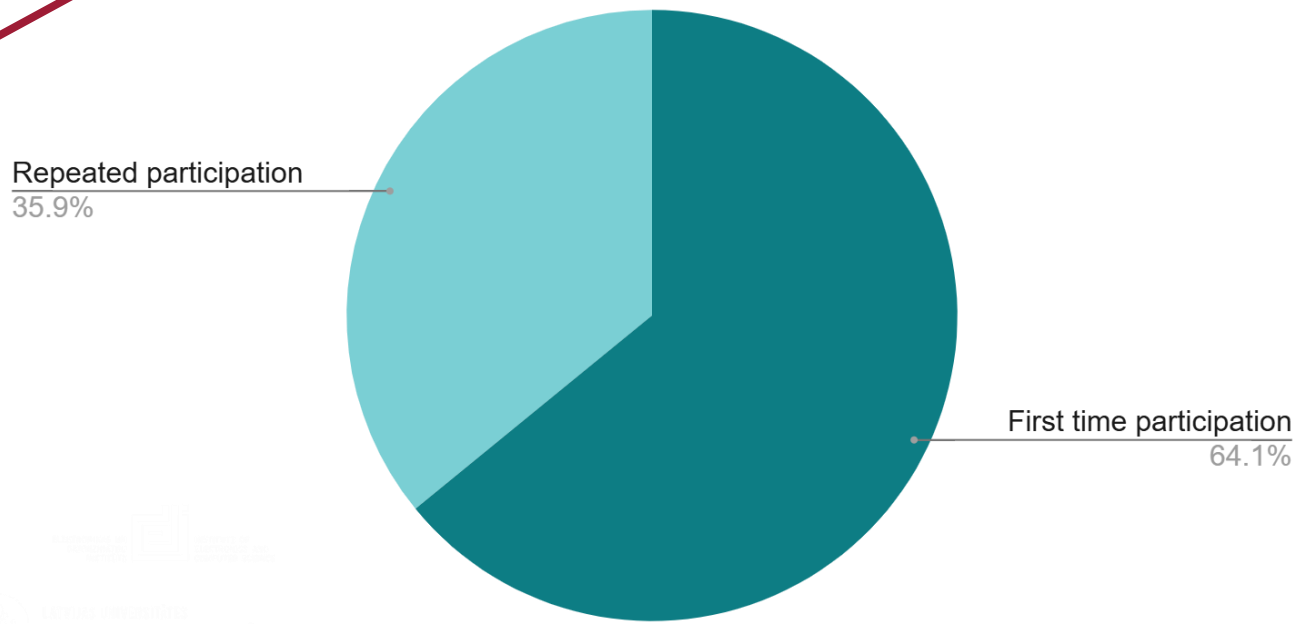
- Start-up VS licensing to an existing company
- Working with giants or small partners
- Next stage funding and business strategies
- Pricing & reimbursement

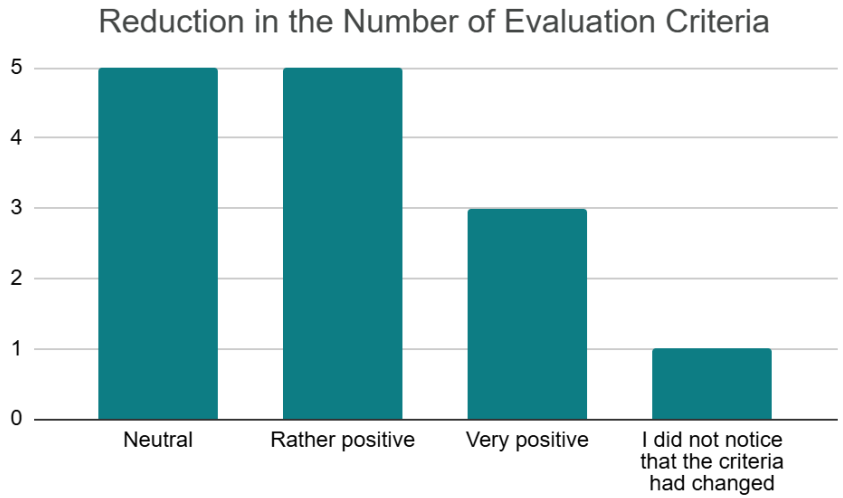
Survey Analysis of the Organizational Process of the Second Call and the Work of the Expert Panel

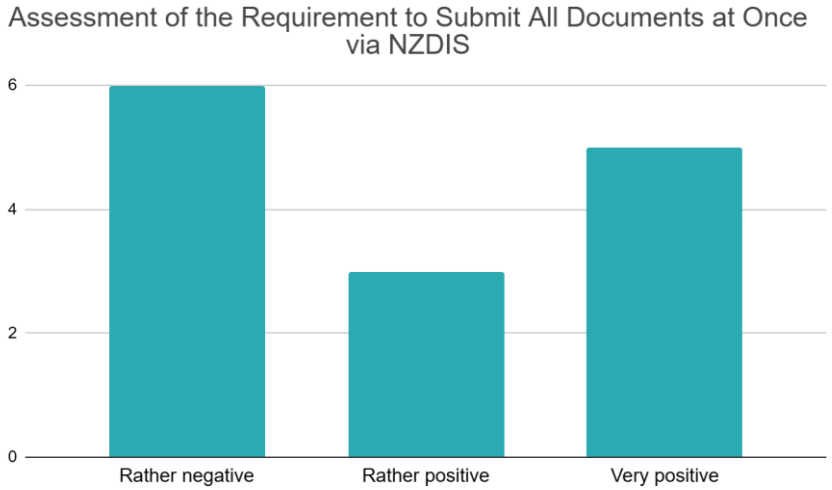
(39 respondents)

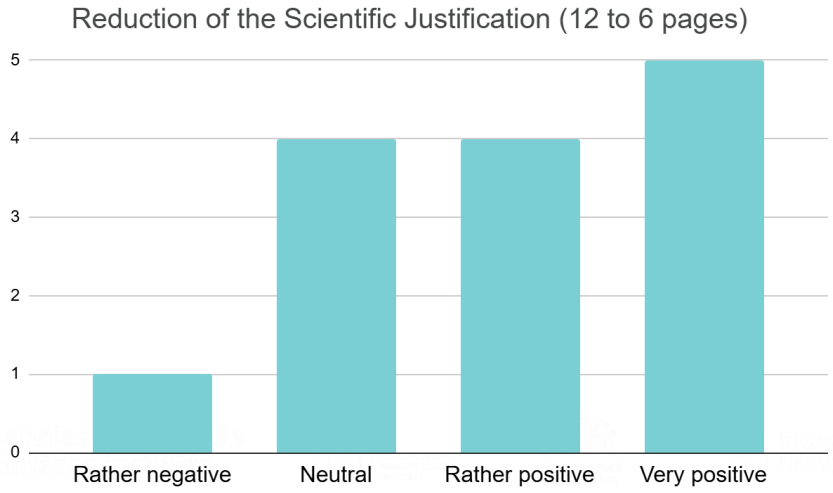
Life Sciences vs General Technologies

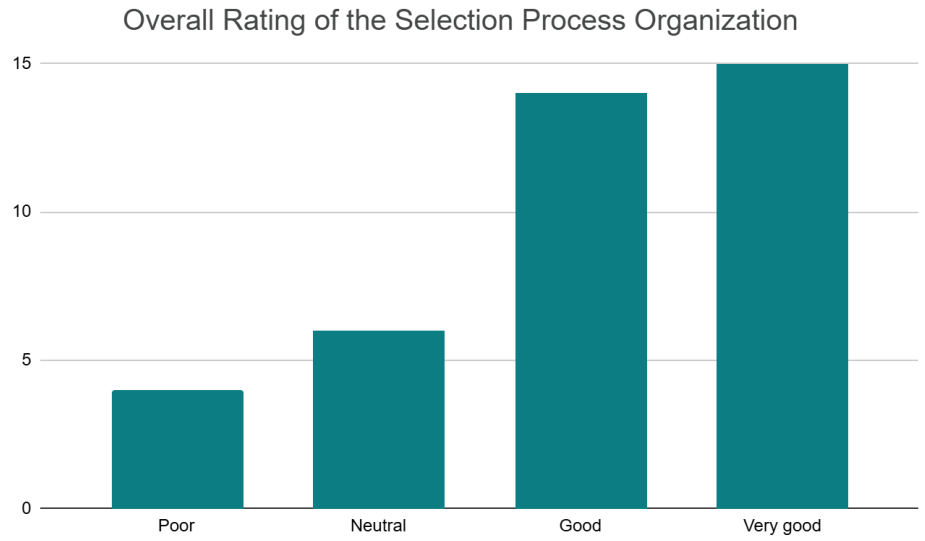


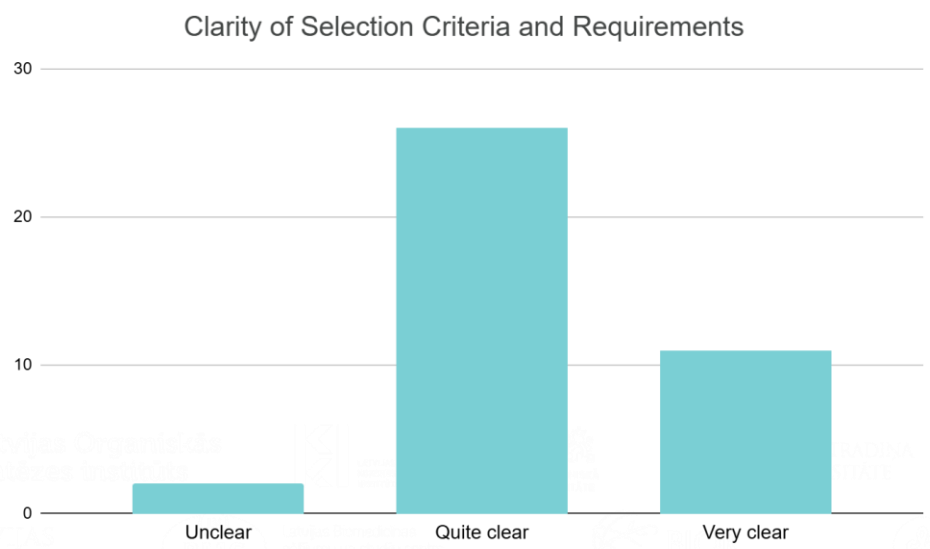


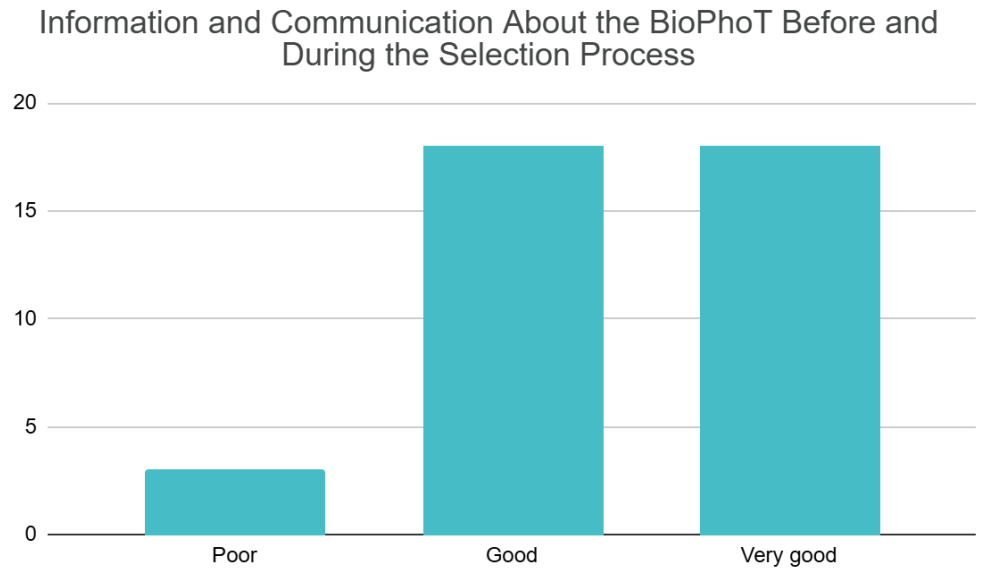

Reduction in the Number of Evaluation Criteria
5
4
3
2
1
0
Neutral
Rather positive
Very positive
I did not notice that the criteria had changed

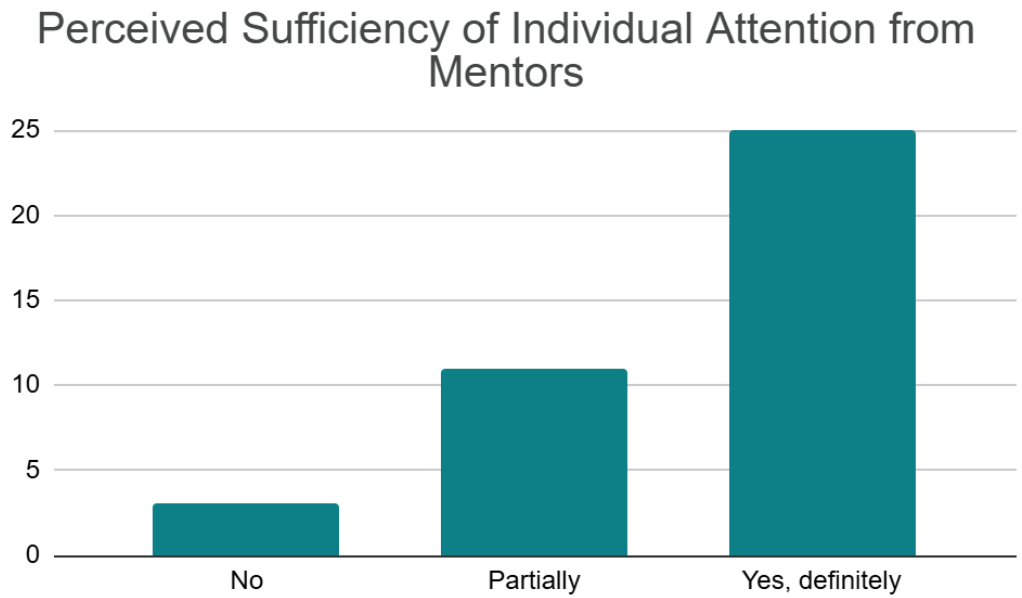

Assessment of the Requirement to Submit All Documents at Once via NZDIS
6
4
2
0
Rather negative
Rather positive
Very positive

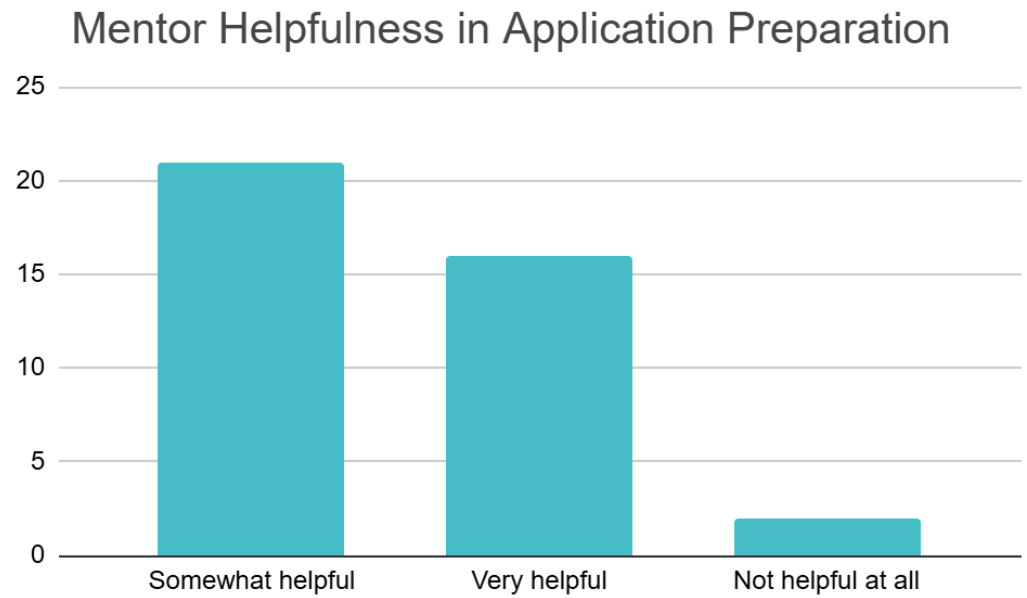

Reduction of the Scientific Justification (12 to 6 pages)
5
4
3
2
1
0
Rather negative
Neutral
Rather positive
Very positive


Overall Rating of the Selection Process Organization
15
10
5
0
Poor
Neutral
Good
Very good


Clarity of Selection Criteria and Requirements
30
20
10
0
Unclear
Quite clear
Very clear


Information and Communication About the BioPhoT Before and During the Selection Process
20
15
10
5
0
Poor
Good
Very good


Perceived Sufficiency of Individual Attention from Mentors
25
20
15
10
5
0
No
Partially
Yes, definitely


Mentor Helpfulness in Application Preparation
25
20
15
10
5
0
Somewhat helpful
Very helpful
Not helpful at all

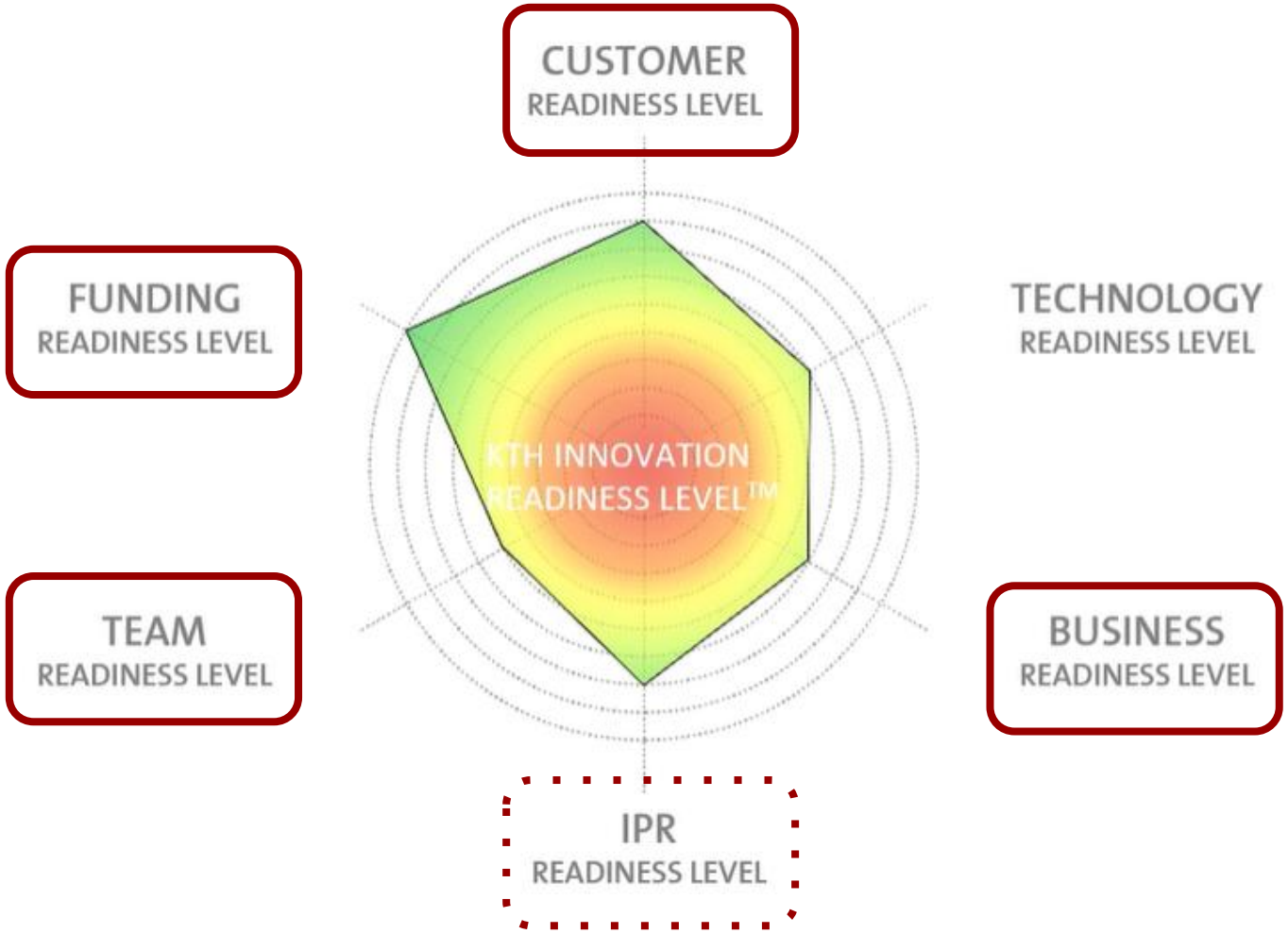
Key Insights on Mentor Support

- Mentor support was especially valuable in preparing presentations and pitch sessions;
- Collaboration with mentors was perceived as professional, supportive, and constructive;
- There is room to further strengthen support in commercialization, market analysis, and practical go-to-market strategy;
- Mentor involvement helped applicants better understand expert expectations and evaluation logic;
- Participants particularly highlighted the need for clearer mentor roles, access to specialised knowledge when required, and stronger practical guidance in areas outside researchers' core competencies (e.g. commercialization and positioning).

Mentor role from BioPhoT perspective

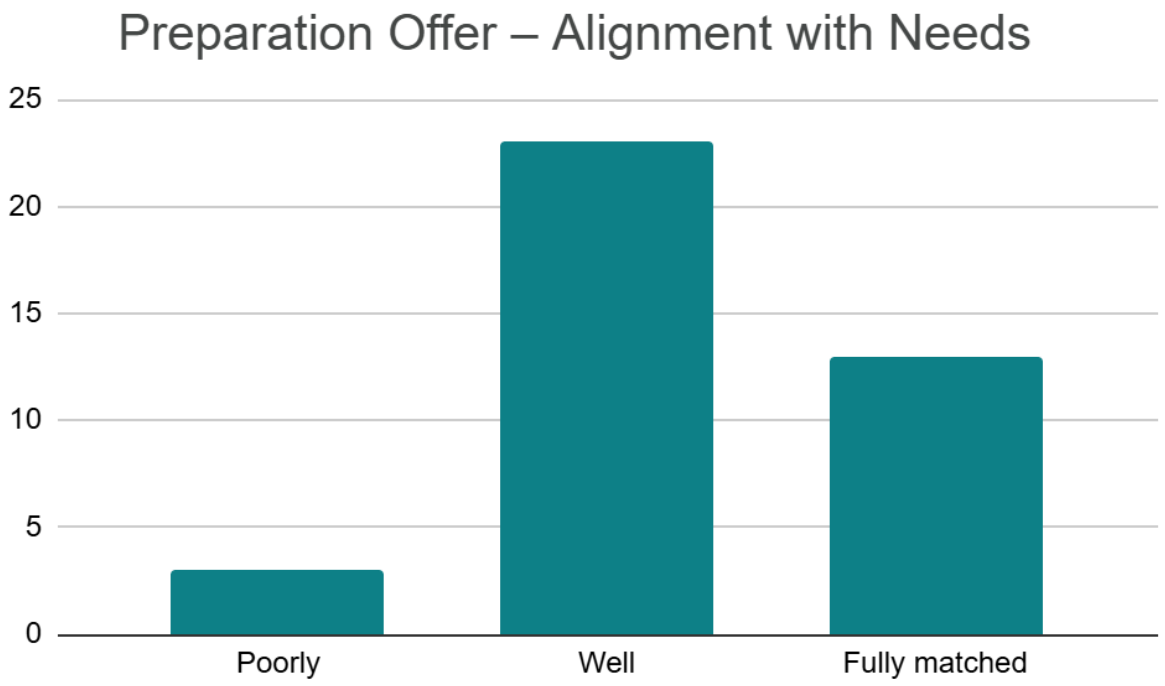
The mentor supports the transition from lab to market by providing strategic and practical guidance, connections, and progress monitoring:

- Help teams shape and test the value proposition, identify target customers and validate market demand
- Advise on commercialization strategies, revenue models, and go-to-market planning.
- Inform teams about intellectual property, regulatory aspects, and available BioPhoT platform support
- Mentors **can assist in building the right team,** identifying required competencies and developing effective governance structures
- Help identify partners, pilot opportunities, and early customers
- **Mentors monitor PIP progress, assess innovation readiness at key stages and connect teams with relevant BioPhoT training and networking opportunities.**



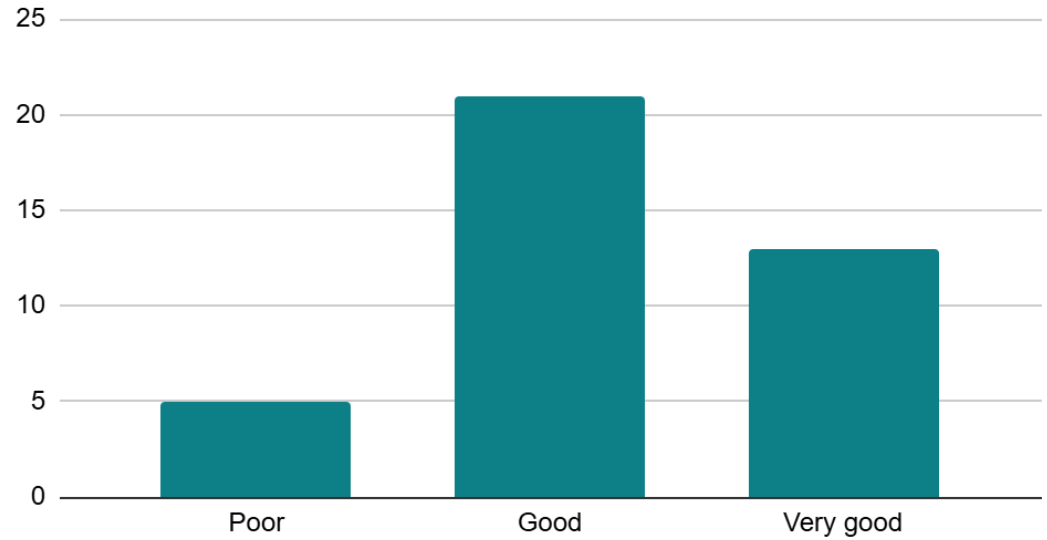
Scientists retain full responsibility for research progress (TRL), while the business developer ensures collaboration with the BioPhoT mentor and drives the commercial/market application direction of the project

Evaluation of the Preparation Process (Seminars, Mentors, Training)

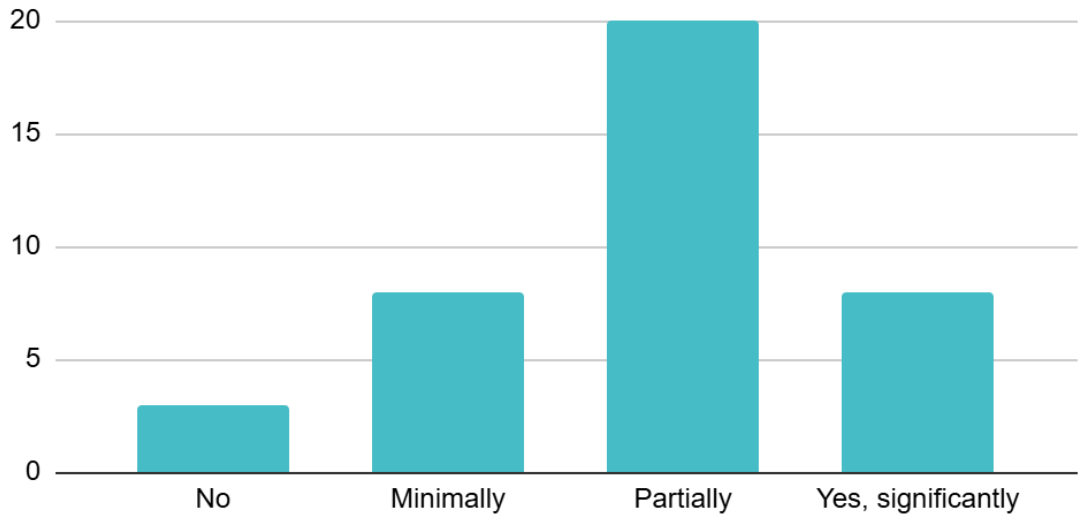


- More tailored **mentor and training offer aligned with the specific needs of each project and sector**;
- Focus on pitch and presentation skills;
- Expanded content on **commercialization and TRL scale-up**, including practical guidance for early-stage projects;
- Specialized training modules for regulated and **niche sectors, such as medical devices, dual-use applications etc.**

Overall Performance of the Industry Expert Panel



Value Added by the Industry Expert Panel to Application Idea



Strengths

- The expert panel was professional, engaged, and respectful throughout the evaluation process
- The questions raised during presentations were relevant and helped clarify key aspects of the proposals
- The evaluation process was overall structured and transparent enough to support meaningful assessment

Areas for improvement

- Closer alignment between panel discussions, written feedback, and scoring would make the evaluation process more transparent and reliable
- Panel composition, programme rules, and submission procedures could be further refined to better support applicants
- Expectations regarding commercialisation and market readiness should better align with early-stage TRL levels

What's next?

- **The next BioPhoT call is planned for August 2026**; the total available budget is still to be specified; **the third call invites applications from the first call for proposals**
- The start of the third call is planned for January 2027
- Competition is expected to increase – the quality and readiness of projects will increase, while funding may remain limited → emphasis on implementation potential
- **The two-panel evaluation model is planned to be maintained**
- Projects approved for the next call will also have to focus on other dimensions of IRL, not only raising TRL
- **The approach to training content development will be revised,** taking into account the previously low and uneven participation of funded projects in training activities

BIOPHOT

VPP
Valsts pētījumu programma

Thank you! Let's discuss!

biophot@osi.lv

Latvijas Organiskās sintēzes institūts
Latvijas Valsts koksnes ķīmijas institūts
Rīgas Tehniskā universitāte
Rīgas Stradiņa universitāte
Elektronikas un datorzinātņu institūts
Institute of Electronics and Computer Science
Latvijas Universitāte
BMC
Latvijas Biomedicīnas pētījumu un studiju centrs
BIOR
Latvijas Universitātes Cietvielu fizikas institūts