



CEITEC

MUNI



INTEG-RNA

Didactical concept for the topics relevant to research management

CEITEC MU, December 2023



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INTRODUCTION

Work Package 4 "Institutional Upskilling", of the INTEG-RNA project, focused on improving scientific support by educating management/administration staff of CEITEC MU, increasing international exposure of CEITEC MU management with others who have the same/similar area of expertise, and empowering them to network within Twinning by sharing best practices and expertise to provide excellent support to their research community.

Activities within the WP 4 targeted newly established management and administration teams at CEITEC MU that needed to enhance their skills to ensure high-quality research community support.

During the Final Project Meeting, we organized a one-day retreat for research management that aimed at enhancing the skills and knowledge of the research management. The retreat provided a platform for exchanging experiences and insights with advanced partners, including EMBL, JGU, and IMB. The primary objectives were to discuss pertinent topics, share best practices, and collaboratively develop a didactical concept for future implementation at CEITEC MU.

In the following section, we present the didactic concept focused on the topics that we have identified as the most important for the development of administration at CEITEC MU (Alumni at the research institutes, Recruitment of PhD students and their support, Recruitment of postdocs and their support, Pre-award and post-award grant management).

For a brief assessment of the needs of CEITEC, we first evaluated the current situation to identify strengths to build on, weaknesses that need to be eliminated or mitigated, and opportunities that need to be further developed to increase the success and achieve the goals of the institution defined in the CEITEC MU strategy.

DIDACTIC CONCEPT

2.1. Recruitment of PhD students and their support

2.1.1. Current situation

Recruiting and supporting PhD students is a crucial aspect of maintaining a vibrant and successful academic program. We have made great strides in this area in recent years, but we want to keep improving, as our overall population of Ph.D. students is lower than anticipated.

We developed focus groups with early-stage career researchers (PhD students and postdocs) which are held with the aim to find reasons for being dissatisfied with selected aspects of their stay at CEITEC MU.

Two focus groups (platforms) were established. The first group composed of members of the PhD student community, and the second group of postdocs. The platforms discussed topics such as career paths, grant opportunities, training and development plans, technology transfer, and organisation of retreats. The number of participants varied from around 5 to 50, depending on the chosen topic. Communication with early-stage researchers is ongoing, and is ensured by the strategy and science department, which is responsible for the career development of this group of researchers. Inputs by early-stage researchers were presented to the management and used in the following actions.

Recently we have mainly focused on promoting our CEITEC PhD School. The details are described below.

2.1.2. Proposed strategy

Continuation of the propagation of the PhD school

The current promotional activities remain very similar because they proved to be successful, and guaranteed steady growth of the number of applicants. More emphasis will be put on building a personal relationship with the candidates on their decision-making path, especially during the last stage of the process, when the candidate is officially qualified and selected by the supervisor and the admission committee.

Figure summarizes the channels that will be used during the student's decision-making process and the way in which the content should be adapted to achieve desirable results.

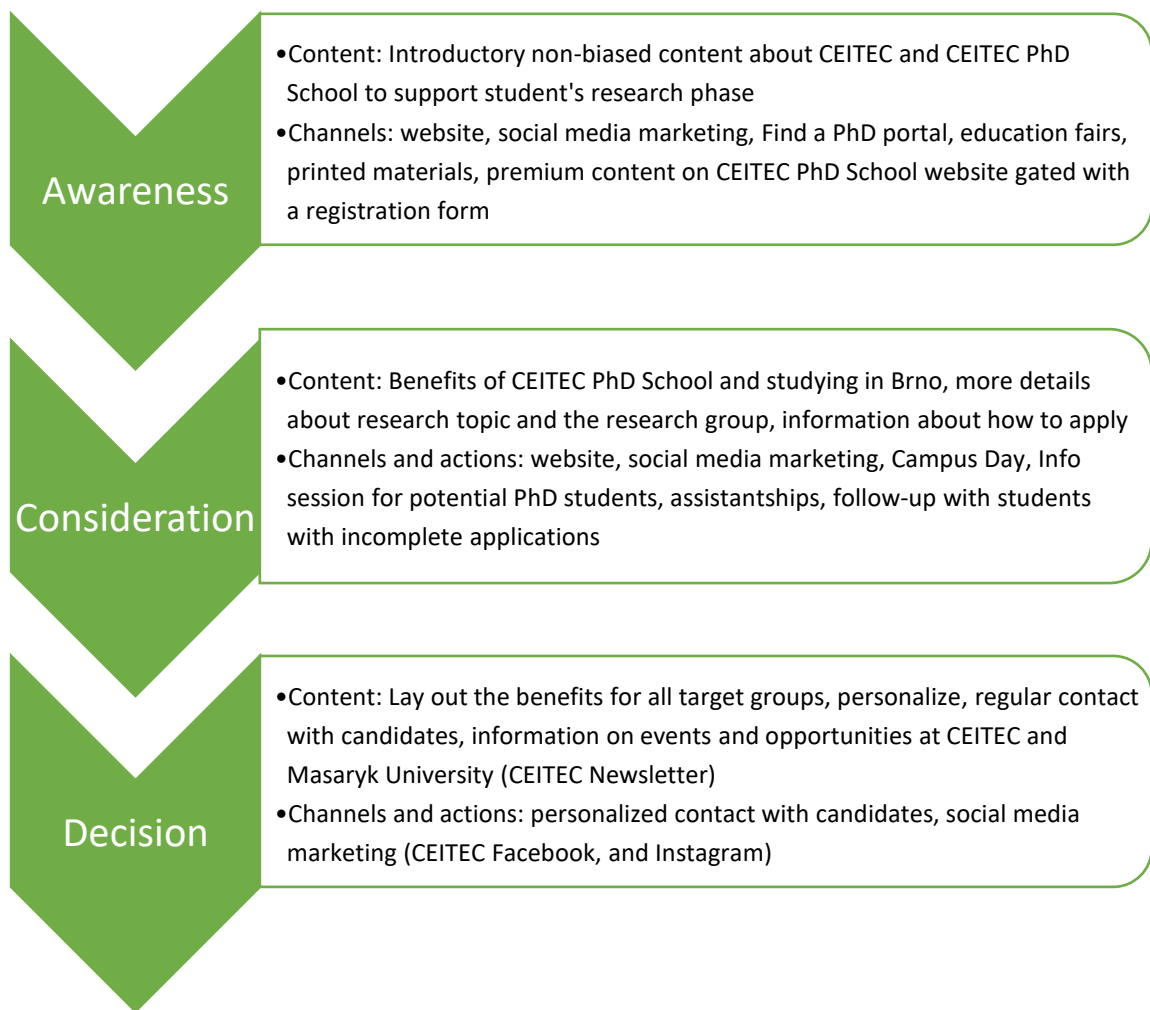


Figure 1 : Student's Decision-Making Process

Posts on social media:

LinkedIn: <https://www.linkedin.com/feed/update/urn:li:activity:7137019098776911872>

Twitter: https://twitter.com/CEITEC_Brno/status/1731254345788755975

Facebook:

<https://www.facebook.com/CEITEC/posts/pfbid02b8G5exyYVqYCjnca6K1XgcASckHCY78pQXW8T2rAiMmck6DCK5CaVYTosCiWZNu6l>

CEITEC PhD School

Study Programmes


Brno, Czech Republic


LIFE SCIENCES

BIOMEDICAL SCIENCES

Molecular Medicine


 4-year
study programmes


 Above-standard
funding

 State-of-the-art
core facilities

 International
and interdisciplinary
environment

 Wide range of topics
from experienced
supervisors

 Coursework in hard/soft/
transferable skills
and bioinformatics

 Vibrant campus life with
many events tailored
for PhD students

phd@ceitec.muni.cz
www.ls-phd.ceitec.cz



HR EXCELLENCE IN RESEARCH



Figure 2 : Promotional flyer

In summary: To attract and retain high-quality Ph.D. students we consider focusing on the following key areas:

Recruitment:

- **Clear Program Information**
Provide detailed and transparent information about the Ph.D. program, including CEITEC MU expertise, research areas, and available resources.
- **Research Opportunities**
Emphasize exciting and cutting-edge research opportunities within the program. Highlight recent publications, ongoing projects, and potential for collaboration.
- **Financial Support**
Clearly outline the financial support available, including stipends, scholarships, and opportunities for research or teaching assistantships.
- **Networking and Collaboration**
Showcase a collaborative and supportive academic community. Highlight opportunities for students to collaborate with faculty and other students, both within and outside the department.
- **Facilities and Resources**
Showcase the state-of-the-art facilities, laboratories, and resources available to Ph.D. students. Emphasize access to libraries, research centers, and any specialized equipment.
- **Professional Development**
Detail programs for professional development, such as workshops, conferences, and training sessions, promoting the career development plan. Mention opportunities for presenting research at conferences and publishing in reputable journals.
- **Diversity and Inclusion**
Promote a diverse and inclusive academic environment. Highlight efforts to support underrepresented groups in our program.
- **Admissions Process**
Clearly communicate the admissions process, criteria, and deadlines. Provide guidance on preparing strong applications, including tips for writing effective research proposals.

Support During the PhD Program:

- **Mentorship**
Make our mentorship program even stronger by pairing each PhD student with an experienced mentor from CEITEC and partner institutes. Organize regular meetings and open communication within the TAC (Thesis Advisory Committee)
- **Academic and Research Support**
Offer new workshops and resources to enhance academic and research skills. Provide assistance in grant writing, data analysis, and other essential research activities.

- **Well-being and Work-Life Balance**
Address the importance of mental health and work-life balance. Provide access to counseling services and promote a healthy academic culture.
- **Community Building**
Continue fostering a sense of community among PhD students through regular meetings, social events, and collaborative projects. Encourage participation in departmental and university-wide activities.
- **Regular Feedback**
Establish a system for providing constructive feedback on research progress and academic performance. Encourage open communication between students and CEITEC (already running thanks to focus groups).
- **Career Development**
Promote a career development plan integrated into the program. Offer new workshops on preparing for the job market, alternative career paths, and building a professional network.
- **Flexibility**
Recognize the individual needs and goals of PhD students. Provide flexibility in coursework, research projects, and timelines when possible.

2.2. Recruitment of postdocs and their support

2.2.1. Current situation

Our overall population of postdoctoral researchers at CEITEC MU is considerably lower than anticipated. For CEITEC, this is currently one of the most important priorities of our institution's strategy - to increase efforts to attract and recruit more postdoctoral researchers to the university, addressing factors such as funding availability, supportive research environment, and competitive benefits.

Understanding the reasons for this issue is crucial for devising effective strategies to enhance the postdoctoral experience and contribute to the overall academic excellence of the institution.

The reasons could be the following:

- **Limited Funding Opportunities**
One significant factor contributing to the low number of postdocs is the limited availability of funding opportunities. The scarcity of research grants and fellowships at both institutional and external levels restricts the ability of researchers to engage postdocs in their projects.
- **Competitive Landscape**
The highly competitive nature of the academic environment may deter potential postdocs from choosing CEITEC MU. If other institutions offer more attractive packages, including higher stipends, better research facilities, and stronger mentorship programs, researchers may be inclined to pursue opportunities elsewhere.

- **Lack of Clear Career Development Pathways**

A lack of well-defined career development pathways and mentorship programs may contribute to the low number of postdocs. Clear guidance on potential career trajectories, networking opportunities, and professional development support is crucial for attracting and retaining postdoctoral talent.

- **Ineffective Communication and Marketing**

The university's postdoctoral programs may suffer from a lack of effective communication and marketing strategies. If we fail to adequately showcase its strengths, research achievements, and supportive academic environment, it may struggle to attract competitive candidates for postdoctoral positions.

- **Institutional Policies and Culture:**

Institutional policies and culture play a pivotal role in shaping the postdoctoral experience. If policies related to benefits, work-life balance, and intellectual property rights are not attractive, it can discourage potential postdocs from choosing our institute.

2.2.2. Proposed strategy

By addressing these key findings and implementing the new strategy, CEITEC MU can work towards creating a more appealing environment for postdocs, ultimately increasing the total number of postdoctoral researchers at the institution.

- **Enhance Funding Opportunities**

Collaborate with alumni, and industry partners to secure additional funding for postdoctoral research. This could include establishing dedicated fellowships, grants, and endowments.

- **Revise Compensation Packages**

Review and potentially revise compensation packages for postdocs to ensure competitiveness with peer institutions. Consider additional benefits such as health insurance, housing assistance, and professional development funding.

- **Develop Comprehensive Career Development Programs**

Implement structured career development programs, mentorship initiatives, and networking opportunities to provide postdocs with clear pathways for professional growth within and beyond academia. We have already focused on this area within the INTEG-RNA project – WP3.

- **Review and Update Institutional Policies**

Conduct a thorough review of institutional policies affecting postdocs and make necessary updates to ensure they align with the needs and expectations of today's researchers. Foster a positive and inclusive institutional culture that values the contributions of postdoctoral researchers.

- **Improve Communication and Marketing Efforts**

Enhance communication strategies to effectively showcase the CEITEC MU research strengths, academic achievements, and supportive environment. Develop targeted marketing materials to highlight the benefits of choosing CEITC MU for postdoctoral research.

Specifically:

- **Targeting Generation Z**

Develop a comprehensive understanding of Generation Z preferences, values, and career aspirations to tailor our recruitment approach accordingly.

Implement targeted messaging and campaigns that resonate with the unique characteristics of Generation Z, emphasizing innovation, purpose, and career growth.

- **Refreshing Advertising Approach**

Conduct a thorough review of existing advertising materials and update visuals and content to ensure alignment with current trends and expectations.

Employ a dynamic and visually appealing design to capture the attention of potential postdocs, utilizing diverse multimedia elements to convey a vibrant and engaging atmosphere at CEITEC.

- **Enhancing Social Media Recruitment**

Provide specialized training for recruiters and managers to leverage the full potential of social media platforms for recruitment purposes.

Create and implement a strategic social media plan, emphasizing targeted advertising, engaging content, and active participation in relevant networks to increase visibility and attract potential postdocs.

- **Video Campaign**

Develop a high-quality video showcasing the experiences and achievements of current postdocs, highlighting the unique opportunities and supportive environment offered at the university.

Utilize the video for public relations efforts and integrate it into new advertising campaigns to provide a compelling and authentic glimpse into the postdoc experience at our institution.

- **Strategic Engagement with Group Leaders and Core Facility Heads**

Establish a collaborative platform for sharing best practices with Group Leaders and Core Facility Heads to enhance recruitment strategies.

Organize workshops and events to inspire and educate leaders on contemporary approaches to recruitment, fostering a community of excellence in attracting and retaining top-tier postdocs.

2.3. Alumni at the research institutes

2.3.1. Current situation

Cooperation with alumni is not strategically anchored at our institution and there is no designated lead coordinator in charge of this area. Alumni were approached directly, especially during the "Carrer Café Live Sessions" in the WP3 of the INTEG-RNA project. Also, a LinkedIn group has been set up to which we invite outgoing staff, and we try to conduct interviews with selected outgoing people to show that CEITEC is a good place to start your career (e.g. interview with Dagmar Zigácková, or an article about

Dominik Hrebik - which were posted on the CEITEC [website](#)). Selected group leaders already have a list of former members and info about where they are now on their website. Anyway, this area is one of our priorities for the coming years.

2.3.2. Proposed strategy

Focusing on alumni at a research institute involves considering various aspects to enhance engagement, collaboration, and support. Here are several areas we want to focus on:

- **Networking Opportunities**

Facilitate networking events, both in-person and virtual, to bring together current researchers, CEITEC, and alumni. Create an online platform or community (besides LinkedIn) where alumni can connect, share experiences, and collaborate on research projects.

- **Professional Development**

Offer workshops, webinars, and seminars that provide ongoing professional development opportunities for alumni. Provide resources for continuing education, such as access to research publications, journals, and online courses.

- **Mentorship Programs**

Establish mentorship programs that pair alumni with current students or early-career researchers. Encourage experienced alumni to share their insights, guidance, and career advice with those who are starting their research careers.

- **Collaborative Research Initiatives**

Create opportunities for collaborative research projects between the institute and alumni, fostering a sense of community and shared intellectual pursuits. Establish joint funding mechanisms or grants that support collaborative research endeavors.

- **Recognition and Awards**

Recognize and celebrate the achievements of alumni through awards or honors for significant contributions to their respective fields. Showcase alumni success stories to inspire and motivate current researchers (already running thanks to the "Career Café Life" series).

- **Alumni Contributions:**

Encourage alumni to contribute to the institute's research by participating in conferences, seminars, or as guest speakers.

- **Fundraising and Philanthropy**

Develop fundraising campaigns or philanthropic initiatives that involve alumni in supporting the institute financially. Establish endowed chairs, scholarships, or research funds named after distinguished alumni.

- **Communication and Outreach**

Maintain regular communication channels to keep alumni informed about the institute's developments, achievements, and upcoming events. Utilize social media, newsletters, and other platforms to stay connected with the alumni community.

- **Surveys and Feedback**

Conduct surveys to gather feedback from alumni on their experiences at the institute and their suggestions for improvement. Use feedback to enhance programs, services, and the overall alumni experience.

- **Global Alumni Engagement**

Recognize and engage with alumni who have pursued careers internationally, fostering a global network. Facilitate events or initiatives that bring together alumni from different regions, promoting a diverse and interconnected community.

2.4. Pre-award and post-award grant management

2.4.1. Current situation

Pre-award and post-award grant management are critical components of the grant lifecycle. The newly unified Grants Office at CEITEC MU has the ambition to help scientists find grant calls that they have not yet experienced, but which often better match their needs. Before setting up a new strategy to enhance the efficiency and effectiveness of grant processes, we had to identify current weaknesses:

- **Lack of a detailed implementation plan can result in confusion and inefficiencies**

Without specific sub-activities and steps, it's challenging to measure progress and address issues in a systematic manner.

- **Lack of analysis of objectives concerning national and international strategies**

Failing to align grant objectives with national and international strategies leads to a lack of impact and relevance on a broader scale. The absence of such analysis can hinder the integration of projects into larger development frameworks.

- **Weak and untargeted communication of grant opportunities**

Ineffective communication results in eligible parties not being aware of grant opportunities.

- **Impersonal links to project managers**

Impersonal connections hinder effective collaboration and communication between grant recipients and project managers.

- **Declining number of submitted grants and supported grants**

A decrease in submissions indicates a lack of interest, awareness, or confidence in the grant system. It also suggests a need for a review of eligibility criteria or a reevaluation of the application process.

- **Financing issues (co-financing requirements, overhead, lack of motivation factor)**

Overhead costs can burden grant recipients and reduce the effective use of funds. A lack of motivation factors results in a decreased commitment to project success.

- **Absence of more targeted support for applied research**

The absence of focused support leads to a lack of innovation and practical solutions. Applied research requires specific types of support that generic grants may not address adequately.

- **Lack of analysis of existing information (evaluation, analysis, reports, etc.) for a holistic view of grant strategy**

Ignoring existing information results in the repetition of mistakes and missed opportunities. Holistic analysis helps in understanding the overall impact, lessons learned, and areas for improvement.

- **The reluctance of researchers to try new challenges (reliance on traditional sources, reluctance to apply for international grants)**

A reluctance to embrace new challenges stifles innovation and limit the potential impact of research. Over-reliance on traditional sources hinders exposure to diverse funding opportunities and collaborations.

2.4.2. Proposed strategy

- **Analysis of the needs and possibilities of the Research groups and Core facilities**

Scientific focus of the group, consultation of project plans, the structure of currently implemented grants (funding, commitments, schedule), information on submitted grants (types, success rate), an overview of strategic partnerships, types of produced outputs etc.

- **Tailor-made service**

Group leader works with assigned Project Manager, jointly develops grant strategy and plans sub-steps (personal communication, possibility to attend RGL meeting...), schedules of potential calls for application

- **Long-term overview of grant calls**

Overview of relevant calls prepared for longer periods, depending on the possibilities and availability of information. Identification of project plans and finding potential calls for their application over time. Negotiate potential partnerships within the university and externally.

- **Analysis of information from available evaluations and reports**

Analysis of data from the assessment of project applications, feedback from providers, ISAB report, Publication Report, Technology Transfer Report, Instrument usage report, outputs from audits and inspections, etc.

- **Increase in competencies of Project Managers**

Targeted work with the PM, setting up the training structure, using skills development opportunities, identifying strengths and weaknesses, and defining expectations from the PM position.

- **Know-how sharing**

Sharing experience from the implementation phase of projects, in the preparation of grant applications (especially strategic grants), the principle of at least „four eyes” on the GO, lessons learned, sharing the experience of successful applicants for prestigious grants as a tool for motivation.

- **Efficient information service**

System of seminars and presentations (including the possibility of preparing tailor-made presentations), setting up effective ways of sharing information about grant calls, evaluation of the used communication channels, and popularization of successes in the grant area.

- **Grant Strategy Development Working Group**

Utilization of know-how and ideas, linkage to the Institute's strategies and goals, identification of institutional strengths and potential opportunities, identification of promising topics with a vision for submission of interdisciplinary and multidisciplinary projects, projects with application partners

- **Analysis of regional, national, and international strategies**

Linking the strategy to the objectives and strategy of CEITEC, specifying steps of how CEITEC can contribute to its implementation in relevant areas and thus increase the impact of the submitted grants