

RP2: Advanced Materials

EVALUATION OF RESEARCH PROGRAMME

RP Name: Advanced Materials
RP Coordinator: Josef Jančář

Quality of current research

Assessment:

Several activities are at a good international level. The ambition to strive for an even stronger international standing is not so consistent and clear. There is a strong, positive move forwards regarding work at the life sciences interface but also in the general performance of all groups. The panel was impressed by the interdisciplinary accomplishments demonstrated by the research programme and the increased connection between groups.

Recommendations:

The culture for recognising the importance of new research topics, ideas and publications in high-impact journals needs to be strengthened. This is an opportunity to build on existing progress and involve earlier career researchers in helping build the vision of the group and programme.

Long-term visions at a group and programme level need to be further developed.

Internationalisation and some new recruitments are recommended.

Research potential + vision/plans of the Research Programme

Assessment:

Only some parts represent a modern programme in advanced materials. Nanoscale materials phenomena and biomaterials may offer unifying research problems for the programme.

Recommendations:

Formulate an overall research vision on truly “advanced materials” (where “old” topics are discarded to make space for innovation). Select 2-3 research problems for synergy effects between groups and specify 5 and 10 year targets for this.

There is a strong chemical competence in RG2-1 (polymers) and RG2-3 (ceramics) which should be further exploited in view of translating fundamental research into higher technology readiness levels.

Composition of the Research Programme

Assessment:

Some areas of research are in stagnation at international level. Engineering science and life science bridging is promising in respect to synergies and should be strengthened. Search should be intensified for new research problems at the interface of disciplines.

Recommendations:

A future review board that will have the task to assess vision and coherence of RP2 would benefit from a visionary research program draft that makes use of the most important competences of the included research groups. Such a home work as a sketch for future calls would also provide the chance to reconsider the interaction possibilities within RP2.

Use bibliometry as a means not to measure quality but as a driver to strengthen the importance of strong publication records and collaboration inside CEITEC.

Appropriateness of the operated/planned infrastructure

Assessment:

Excellent capital infrastructure, long term sustainability and knowledge retention is currently uncertain.

Recommendations:

Continue to support the core facilities regarding space, knowledge retention and expertise.

Other

Staff development and ambition is often hindered due to shifting of top-down evaluation criteria for the individuals in terms of career progression. A more consistent longer-term message and staff development strategy from CEITEC upper management will help improve this situation.

To help develop the cohesive nature of the RP we suggest a series of annual workshops aimed to bring together RG's and showcase their research to one another. An agenda item for PI's will be to develop the research vision and strategy.

We also suggest that a RP PhD student committee is formed and organises a mandatory PhD student research day as part of their training where all students present posters of their work and some final year selected students give oral presentations. No research staff should be present at this day as this is intended to develop networks between students and promote interdisciplinary collaboration outside of core research projects.

We believe CEITEC core budget should provide funds to support these activities.