

# **Evaluation of the Research and Professional Activity of the Institutes of the Czech Academy of Sciences (CAS) for the period 2010–2014**

## **Final Report on the Evaluation of the Institute**

**Name of the Institute:** Institute of Geonics of the CAS, v. v. i.

**Fields, in which the Institute registered its teams:**

Social and economic geography

Observer representing the Academy Council of the CAS: Pavel Janoušek

Observer representing the Institute: Josef Foldyna, substitute observer Richard Šňupárek

**Commission No. 10: Social sciences**

Chair: doc. JUDr., PhD., LL.M. Kristian Csach

Date(s) of the visit of the Institute: October 19 - October 23, 2015

Programme of the visit of the Institute: see attached Minutes from the visit

Evaluated research teams:

*No. 4 - Human geography*

## **A. Evaluation of the Institute as a whole**

### **1. Introduction**

The institute consists mostly of researchers in physical geography complemented by human geographers. The evaluated team and is also located as a separate branch apart from the rest of the Institute. The Commission had therefore only limited access to the Institute.

### **2. Strengths and Opportunities**

### **3. Weaknesses and Threats**

The Commission has evaluated only a small part of the Institute, so it is not able to state any far-reaching assumptions, SWOT analysis and recommendations beyond those related to the Evaluated team as such.

### **4. Recommendations**

The Commission is not entitled to question the sufficiency of financial support by the state or the institute. However, the clear uncertainty of funding limits the possibility of drafting long term research aims and leads to project dependent financing. A more stable financial support scheme or at least the funding from a more generous project funding scheme (ERC grant) is therefore vital.

The Institute shall further promote the already well running (involvement in 4 Inter-institutional projects) intra-institutional cooperation (i.e. the institute provides equipment and hard-data gathering for multiple departments of the Institute, physical and human geography aspects of the same problem solved jointly, joint-seminars). Moreover, an inter-institutional cooperation should be promoted, as the evaluated team of the Global change impact institute (Human dimension) could profit from the methodological leadership of the Human geographers at the Institute of Geonics.

### **5. Detailed evaluations**

The Commission has evaluated only a small part of the Institute, so it is not able to state any far-reaching assumptions and recommendations beyond those related to the Evaluated team.

However, according to the provided information the institute learned lessons from the last evaluation and performed changes which led to an increase of publications and other scientific outputs of the Institute.

The commission was also informed that the Institute promotes a cooperation between the departments and provides the evaluated team consisting of human geographers with hard data produced by physical geographers.

## **B. Evaluation of the individual teams**

### **Evaluation of the Team No. 4: Human geography**

#### **1. Introduction**

Two principal aspects of geographical research performed by the Department of Environmental Geography, Institute of Geonics CAS are:

- (i) the physical-geographical aspect (including climatological, geomorphological, hydrological and biogeographical issues); and
- (ii) the human-geographical aspect (including social, economic and cultural issues, approached primarily from a spatio-temporal perspective).

The evaluated team focuses on the latter topic researching two broad defined research areas:

1. The transformation of urban spaces (1.1 Re-urbanization, urban renewal and brownfields redevelopment and 1.2 Spatial models of behaviours in changing urban environments),
2. The changing nature of rural spaces (2.1 Renewable energy development and rural land-use conflicts and 2.2 Restructuring and diversification of agriculture)

#### **2. Strengths and Opportunities**

Young and ambitious team

Well established and internationally recognized (V4 level) in-house journal

Opportunity to establish a closer cooperation with business (flas floods projects, renewable energy)

#### **3. Weaknesses and Threats**

Underfunding by CAS

Small team

Not a clear dividing line between the research activities of team members between the University and CAS

The team is located far away from the rest of the Institute's research capacities

Generation gap

Significant amount of researchers' workforce concentrated on editorial activities

#### **4. Recommendations**

It might be fruitful to include senior foreign researchers into the research project applications as to minimise the negative effects of the generation gap.

New momentum might be gained by a much closer cooperation with the Global

change institute (i.e. the comparison of results of the research on droughts and those on flash floods). Application for a leading role in an international (EU) project funding scheme is vital.

## **5. Detailed evaluations**

### *Declaration on the quality of the results and share in their acquisition*

There has been a significant progress in scientific output from the last evaluation in this department. The focus on IF journals is appreciated.

The team members have increased their scientific output significantly, including an increase of the number of publications published in international journals (compared to the last evaluation). The international collaboration is present, however, it is vital for the institute not just to be part of an international research network/team but to lead a research project.

Although the Commission is hesitating to generally approve the trend to publish an in-house journal, the evaluated team (the department) runs a journal which seems to be very attractive to foreign researchers (V4 area) and indexed in international database is an achievement for itself.

The Commission had no access to the identification of the particular papers according to their ranking in Phase I. Basing on the information provided, the team members presented the papers and publications which they consider best. The commission welcomed the fact that a paper presented appeared in international journal considered being leading in the particular field of study (Urban studies) and a significant increase in WoS publications is evident.

### *Declaration on societal relevance*

The team is oriented on basic research, combined with applied research. While on-site visit, the Commission was in particular informed of two research activities: research on flash floods and the revitalization of brownfields (as a common socialist heritage). From the provided data the evaluated team achieved results within the research of renewable energy development aiming for the better planning of placement of the energy generators. The extensive data on Spatial models of behaviours in changing urban environments and their interpretations provide information applicable in the field of municipal planning (e.g., accessibility issues). In general, the team was very active in popularization activities in mass media.

According to the provided information, members of the evaluated team were involved in different types of pedagogical activities at various universities in the Czech Republic (Masaryk University in Brno, Mendel University in Brno, Palacký University

in Olomouc, University of South Bohemia in České Budějovice, Silesian University in Opava, University of Ostrava, the Business School in Ostrava, etc.). These pedagogical activities were also supported by EU financial funds from the Operational Programme 'Education for Competitiveness'. The involvement ranges from supervision of Doctoral, Masters and Bachelor theses to providing specialised courses to university students.

All pedagogical activities are appreciated. However, some members of the team are also full time employees of Universities. This fact might be attributed to the lack of funding provided for the CAS (low wages). As the topic of research at the University and of the Institute overlaps, it will be necessary to motivate the researchers to publish and present their outcomes under the banner of the Institute and not the University. Alike the situation in other institutes, the work-force division of the members between their CAS engagement and their University position is a threat to future research activities. It might be reasonably outweighed by the positive effects of the collaboration with universities (selection of capable students, synergic effects of research), but a check and balances system shall not be neglected.

The collaboration of the team with business sector is limited (no transfer of technologies visible in financial terms). However, the team presented information (i.e. flash floods analysis) which could be of interest to business sector (insurance) and possible future collaboration with undertakings could be considered in the future. The same might be said regarding the research on renewable energy development (energy business).

In general, the outcomes of the research aim on transformation of human space (brownfields regeneration) might be interesting more for public stakeholders than for private businesses.

As mentioned, the evaluated team provides policy papers and publishes articles which might be relevant for public policy decision on urban planning.

The data provided by the team show a number of popularization activities by the members of the team. Team members regularly make use of the possibility to present their research within the "weeks of science" and they also appear in mass media.

The main achievement of the team is the selection of papers published in WoS papers (as listed in the team report).

#### *Declaration on the involvement of students in research*

The students (especially PhD and MSc candidates) were involved in the research activities as research assistants. The Commission was provided with identification of

papers co-authored by members of the evaluated team and PhD. students. According to the provided data, 3 theses supervised by the team members have been defended within the evaluated period (only the universities have the right to perform educational activities incl. PhD-studies).

#### *Declaration on the position in the international and national context*

Regarding the position of the Team in national context, its primary “competitors” are faculties and their departments of geography. Even in Brno there are at least two university departments/institutes covering a similar scope of research (Faculty of Sciences and Faculty of Pedagogy of the Masaryk University) and one CAS institute (Global change). The strength of the Evaluated team is its collaboration with the team focused on physical geography, its institutional background and available equipment. The in-house journal belonging to renowned journals within the V4-region is also a positive feature, despite the need for a significant financial subsidy by the institute and the work-load with the editing of the journal.

However, its weakness in comparison with other teams/institutions in national context institutes is its small size, uncertainty of funding and the sharing of workforce with universities.

The research performed by the team is mostly locally relevant (brownfields, floods), but the results might be important for a broader scope of recipients. The research performed is project dependent. Generally, the current research directions are following a project pattern and it may seem that the team is able to perform the research on the topic that is financed by the research agency. The setting of mid-term research aims (not limited to further elaboration and analysis of the current aspects) with the possibility to be funded by multiple project schemes might give the team the necessary stability.

Regarding international research projects, the evaluated team acts as a collaborator, not as a leading research unit within a project scheme.

The ability to attract foreign researchers is rather low based on both objective (attractiveness of the working place compared to Prague, low salaries offered) and subjective reasons (no clear scheme on inviting and hosting of senior researchers, no clear inclusion of senior foreign researchers into the research project applications).

#### *Declaration on the vitality and sustainability*

The evaluated team shows the same age pattern as almost all other teams. The Institute has a promisingly young age structure, mostly with talented and qualified researchers. A generation gap of 45-60 is clearly visible and it is rather impossible to

be filled by national researchers. Therefore, the possibility to attract senior researchers from abroad (scholarships) might strengthen the sustainability of the team. Otherwise, the young researchers might be sent abroad on research stays. If the latter approach shall be followed, the institute/team leader has to prevent the decrease in scientific output of the team.

According to the provided data, the number of young researchers is significantly bigger than the elder ones. Therefore, it is assumable that the programme and the research team are attractive for young people.

Regarding the managerial structure and career system: The provided information shows a rather typical image within all evaluated teams. The involvement of team members in pedagogical activities leads to the transfer of students into PhDs integrated into the research who might afterwards be willing to cooperate as researchers. Such pattern shows a risk of in-breeding and sufficient influence from the outside has to be provided (i.e. foreign research stays).

To promote stability of the research staff and to be competitive with the universities as employers, a career system based on merits and research results shall be introduced and made public. The Commission takes into account that the uncertainty in the future funding limits the possibilities of permanent positions. However, an intra-institutional small funding scheme might be very motivating for the young researchers and mini-projects.

#### *Declaration on the strategy and plans for the future*

Both research plans for the near future (the social aspects of energy and brownfields) are interesting and significant from a social and economic point of view.

**Date:** January 4, 2016

**Commission Chair:** doc. JUDr., PhD., LL.M. Kristian Csach