White Paper

on the issues related to the implementation of Ukraine's laws "On Higher Education" and "On Science and Scientific and Technology Activities"

adopted unanimously by all participants of the German-Ukrainian Workshop "Perspectives for young scientists in life sciences: Mastering global challenges of the modern society",

organised by The Eberhard Karls Universität Tübingen (Germany) and the German-Ukrainian Academic Society/ The UKRAINE Network, in cooperation with The V. Stefanyk Prykarpatian National University (Ukraine) and

supported by the German Academic Exchange Service (DAAD) from the funds of the German Federal Ministry for Foreign Affairs.

Ivano-Frankivsk 25-31.07.2016

In several discussion rounds international participants discussed the issues related to the reform of higher education in Ukraine as well as scientific/technology activities. Recommendations listed below as the bullet points result from careful consideration and many fruitful discussions and aim at providing an expert view to those creating the roadmap for implementation of the new Laws on education and science in Ukraine.

Bachelor education:

- Systematic approach to teaching focused on the future employability of students
- Efficient mentoring
- Provision of elective courses
- Create and teach courses in English
- Provision of soft skill courses
- Less quantity, more quality
- Effective use of Inverted classroom/blended learning/MOOCs approaches
- Include a "semester abroad" module into the BC program
- Establishment of dual degree programs with other European universities cofunded by the Ukrainian government (include this aspect as a bonus into the future university evaluation system)
- Use the WEB to advertize the courses
- Encourage wide implementation of the ECTS system (European Credit Transfer and Accumulation System)
- German system of dual education might provide interesting models for more practice-oriented training

Master education:

- Provision of specialized courses focused on the future employability of students
- Provision of soft skill courses
- Try to avoid overlap with bachelor courses
- Implementation of compact training modules
- Implementation of lab rotations
- Establishment of dual degree programs with other European universities cofunded by the Ukrainian government (include this aspect as a bonus into the future university evaluation system)
- Involve foreign specialists into the teaching process. Create attractive programs for retired professors from abroad
- We strongly support the new requirements for professors and high school lecturers laid down in the new regulations "Порядок присвоєння вчених звань науковим і науковопедагогічним працівникам"¹

¹ <u>http://zakon3.rada.gov.ua/laws/show/z0183-16</u>

PhD training:

- We strongly support the recognition of the PhD training as a milestone of academic education
- We recognize that high quality PhD training requires highly qualified staff, good infrastructure and thought through accredited programs
- We support the requirement of a PhD thesis committee for each PhD student
- We support the requirement of a PhD agreement between the student and the supervisor including, among others, the information about financial support of the PhD position
- Provide a possibility to write and defend the PhD thesis in English
- Include papers written in English and published in peer-reviewed journals into the list of publications required for the accomplishments of a PhD thesis
- We support the requirement of at least one publication in peer-reviewed journal from TR or Scopus list.

Collaboration:

- Support/promote active participation of Ukrainian scientists in international conferences
- Promote Intra-Ukrainian mobility
- Continue and enhance bilateral cooperation programs co-funded by the Ukrainian government (i.e. Germany's DFG Research Training Groups², UK Newton Fund³etc.)
- Join officially the European Research Infrastructure Consortium (ERIC)
- Create sustainable consortia for the international cooperation in education and research at EU level thorough H2020 program as well as the corresponding financial instruments
- Create national as well as universities/research institutions-based research infrastructure facilities and provide small mobility grants to access such facilities
- Improve customs rules for transferring research materials (i.e. living organisms, chemicals, DNA/viral vectors, etc.)
- Foster implementation of the new Laws on education and science and introduce necessary amendments to the tax and custom laws to allow efficient supply of appliance and reagents for good quality research in Ukraine.

2

http://www.dfg.de/en/research_funding/programmes /coordinated_programmes/research_training_group s/ 3

https://www.britishcouncil.org/education/science/ne wton

Transforming "brain drain" into "brain circulation":

- Increase the quality of education in Ukraine. Produce a higher number of good specialists.
- Foster internationalization of Ukrainian universities this will also attract foreign lecturers and will offer better opportunities for Ukrainian students.
- Create attractive bachelor/master/PhD courses for international students.
- Create international offices at the universities to support international students (including visa support, blockchain notarification, etc.).
- Actively invite international students to study in Ukraine.
- Spend the money of the Ukrainian government for "return" programs instead of stipends for studying abroad (there are many such stipends provided by others).
- Allow an easy recognition of PhD degrees obtained at the established universities worldwide.
- Provide bonus in the carrier development for excellent returning scientists (early and true independence; recognition of the publications, teaching and research experience, etc.).
- Promote early independent career development (e.g. via special grants for establishing laboratories and groups for outstanding young scientists).
- Introduce clear requirements for the tenure track career development in academic employment. Substitute permanent employment of teaching/research personnel by tenure track positions.
- Offer outstanding foreign scientists a possibility to open a second laboratory in Ukraine.
- Faster implementation of the new Laws on education and science and introducing necessary amendments to the tax and custom laws to allow efficient supply of appliance and reagents for good quality research in Ukraine.