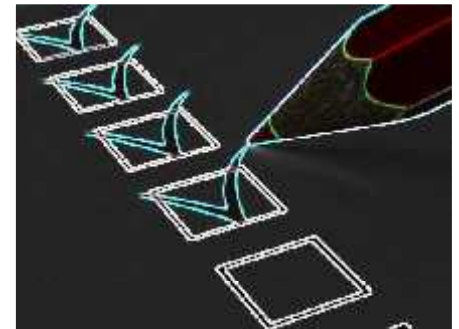


KhAI Evaluation





Goal

The purpose of this evaluation report was to conduct qualitative and quantitative assessment of research data from Kharkiv Aviation Institute (KhAI) and to provide practical recommendations on how KhAI could improve its research.



Process stages

- Basic approach – UK Universities evaluation methodology
- KhAI internal assessment scheme - homemade
- Reasonable compromise
- Forms + qualitative description
- Experts' evaluation + calculations
- UK Universities comparizon



The process of evaluation

1.

- Forms were sent to KhAI team leaders, completed and returned to Intelligentsia

2.

- Quality control by Intelligentsia

3.

- The checked forms were sent to our 6 evaluators with a feedback form. The feedback forms were filled and returned to us

4.

- Quality control by Intelligentsia

5.

- Calculation of quality profiles, synthesizing report and recommendations



Evaluators

Research Topic Team A - Composite Materials

Steering Committee - Jean-Pierre Barthélemy

Brno University of Technology - Jaroslav Jura ka and Jiri Hlinka

Fraunhofer IFF - Kay Matzner

Research Topic Team B - Advanced Manufacturing for Aircraft Assembly

Steering Committee - Jean-Pierre Barthélemy

Brno University of Technology - Jaroslav Jura ka

Fraunhofer IFF - Kay Matzner

Research Topic Team C - Dependable Embedded Systems

Tallinn University of Technology - Gert Jervan

Intelligentsia Consultants - Giles Brandon



Results

KhAI in UOA 28 Mechanical, Aeronautical and Manufacturing Engineering

Overall Quality Profile for Research Topic Team A+B

Quality Level	4*	3*	2*	1*	u/c
% of Research Activity	10	30	40	15	5

KhAI in UOA 24 Electrical and Electronic Engineering

Overall Quality Profile for Research Topic Team C

Quality Level	4*	3*	2*	1*	u/c
% of Research Activity	5	20	35	40	0

Institute	4*	3*	2*	1*	U/C
Imperial College London	30	50	15	5	0
University of Sheffield	30	45	20	5	0
University of Bristol	25	55	15	5	0
University of Nottingham	25	50	20	5	0
University of Leeds	20	55	20	5	0
University of Birmingham	20	50	20	10	0
Cranfield University	20	40	30	10	0
Queen's University Belfast	15	50	30	5	0
University of Liverpool	15	45	35	5	0
University of Southampton	15	45	35	5	0
University of Strathclyde	15	35	35	15	0
Loughborough University	10	50	25	5	0
University of Bath	10	45	40	5	0
Brunel University	10	40	40	10	0
Swansea University	10	35	50	5	0
King's College London	10	35	40	15	0
University of Glasgow	10	35	40	15	0
Kharkiv Aviation Institute (Ukraine)	10	30	40	15	5
University of Wales, Newport	10	15	20	30	25
University of Brighton	5	65	25	5	0
De Montfort University	5	45	40	10	0

Institute	4*	3*	2*	1*	U/C
University of Leeds	30	50	15	5	0
Bangor University	30	40	25	5	0
University of Surrey	30	40	25	5	0
University of Manchester	25	45	30	0	0
University of Sheffield A - Automatic Control and Systems Engineering	25	40	30	5	0
University of Southampton	25	40	30	5	0
University College London	25	35	35	5	0
University of Bath	25	35	30	10	0
Imperial College London	20	55	20	5	0
University of Glasgow	20	45	30	5	0
University of Essex	20	40	30	10	0
Liverpool John Moores University	20	40	30	10	0
Queen's University Belfast	20	40	30	10	0
University of Sheffield B - Electronic and Electrical Engineering	15	45	35	5	0
Loughborough University	15	45	35	5	0
University of Newcastle upon Tyne	15	45	30	10	0
University of Liverpool	15	40	35	10	0
Queen Mary, University of London	15	35	40	10	0
University of Strathclyde	15	35	40	10	0
University of Kent	15	25	45	15	0
University of Nottingham	10	55	30	5	0
University of Bristol	10	55	30	5	0
University of Birmingham	10	50	25	10	5
University of York	10	45	35	10	0
Lancaster University	10	45	35	5	5
Cardiff University	10	40	45	5	0
Swansea University	10	20	35	30	5
Coventry University	5	45	25	25	0
King's College London	5	35	40	20	0
University of Reading	5	35	35	25	0
De Montfort University	5	30	45	20	0
Kharkiv Aviation Institute (Ukraine)	5	20	35	40	0
University of Plymouth	5	15	45	30	5
University of Westminster	0	15	40	40	5
University of Bradford	0	10	50	35	5

32nd in UOA 24 Electrical and Electronic Engineering



Recommendations of experts



- publications translated or, for some selected topics originally written in English
- wider international dissemination and network building
- higher interaction with the private sector/industrial partners on national and international levels
- enhance clientele building and gain additional external funding sources
- mobility and attraction of research staff is encouraged
- investment in additional equipment
- Intellectual Property Strategy should be implemented and (apart from national patents) international patents should be filed too

■ ■ ■ Recommendations of experts

1. Industrialisation – Clientele Building
2. Maintain and improve excellence
3. Internationalisation – Network Building
4. IP Strategy and Clientele Building
5. Target External Funding Sources



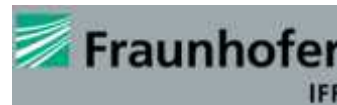
A stylized logo consisting of a light blue human figure on the left and a grey curved arrow on the right, pointing towards the center. The human figure has a circular head and a curved body. The arrow is thick and curved, starting from the bottom left and pointing towards the top right.

Thank you for your attention!

intelligentsia
consultants



KhAI R&D Strategy 2014-2020



Strategy Background

- Ukrainian Laws and Regulations
- European Vision of the research-based University
- KhAI-ERA Evaluation Report

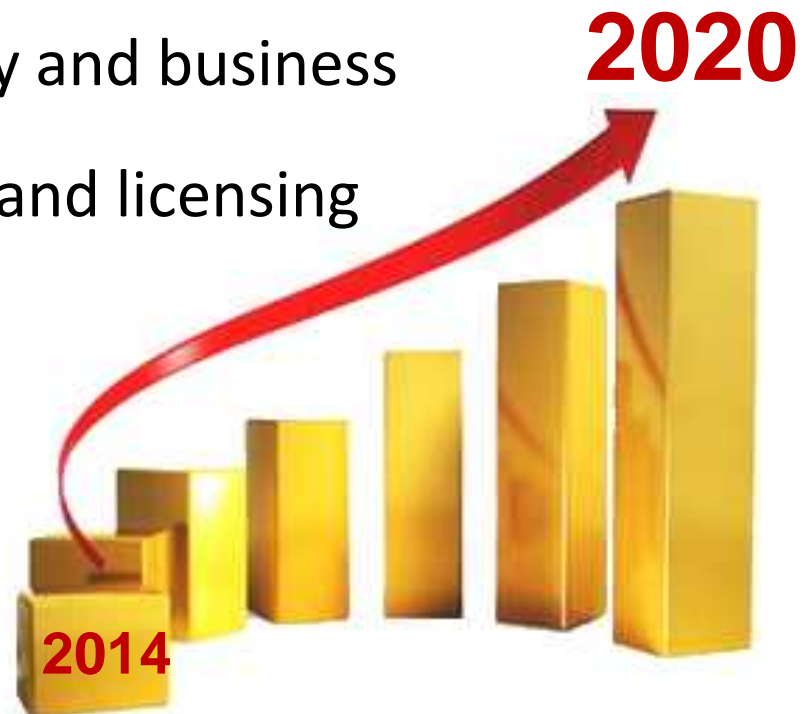
KhAI Mission

To develop scientific and industrial potential of Ukrainian aerospace and high-technology sector and intensify sustainable development of the society and knowledge-based economy by means of providing up-to-date R&D of the highest level.



KhAI Vision for 2020

- ✓ Up-to-date R&D infrastructure in key priority areas
- ✓ Favourable research environment
- ✓ Stable international research cooperation
- ✓ Close cooperation with industry and business
- ✓ Steady system of IP protection and licensing

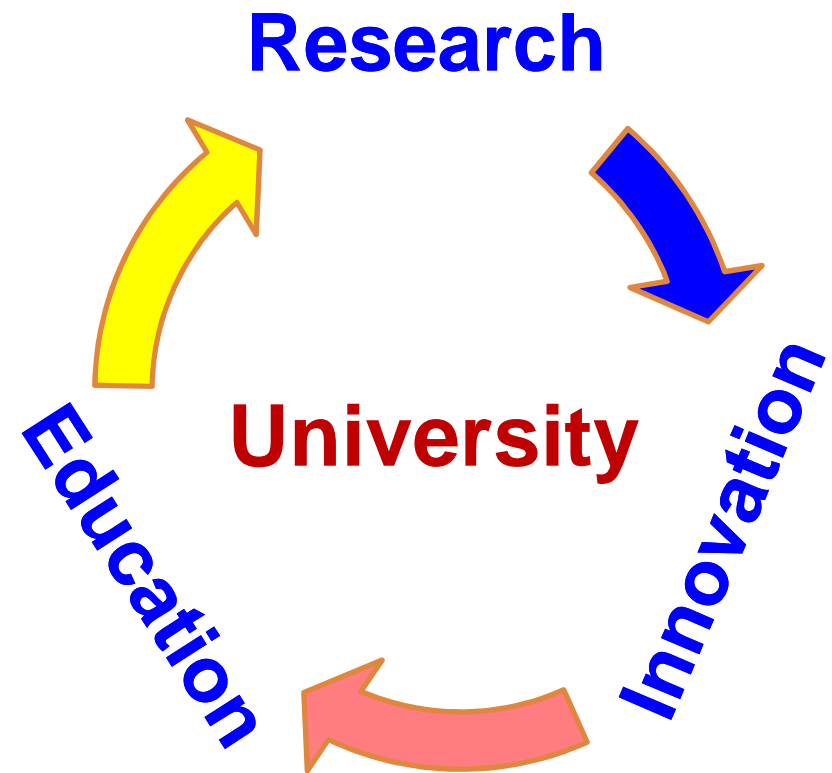


KhAI Priority Research Areas

- Aerospace Engineering and Technology
- ✓ **Material Science**
- Power Engineering
- Radioelectronic and Control Systems Engineering
- ✓ **Manufacturing Processes for Mechanical and Control Systems Engineering**
- Environmentally-friendly product life-cycle
- ✓ **Information and Communication Technology**

University Values and Principles

- Support and development of scientific schools
- Promotion and encouragement of research in priority areas
- Increased responsibility for research outputs
- Research through innovation
- Education through research



University priorities, objectives & actions planned

- P1. Integrated educational and research processes
- P2. Favourable work conditions for research staff
- P3. Reliable and sustainable University research environment
- P4. Competitive, valuable, recognized KhAI research outputs
- P5. KhAI research integrated into the global research network
- P6. Research as a factor of Ukraine economical development
- P7. Sustainable and self-financing research

KhAI R&D Strategy response to EU experts recommendations (1)

Recommendations:

Clientele Building

IP Strategy Building

Maintain and Improve Excellence

**Dissemination –
International Network Building**

**Target External Funding Sources
(both national and international)**

Actions planned:

- To establish new contacts with national/foreign universities and research centres in priority areas
- To strength available collaborative ties
- To organize research cooperation with national/foreign researchers for joint participation in research funding programmes
- To coordinate applied research areas with leading industrial enterprises
- To organize regular WS and meetings with industry/business representatives to establish information exchange and attract investments

KhAI R&D Strategy response to EU experts recommendations (2)

Recommendations:

Clientele Building

IP Strategy Building

Maintain and Improve Excellence

Dissemination –
International Network Building

Target External Funding Sources
(both national and international)

Actions planned:

- To develop and implement comprehensive IPR protection system
- To organize workshops on IPR protection for University staff (regularly)

KhAI R&D Strategy response to EU experts recommendations (3)

Recommendations:

Clientele Building

IP Strategy Building

Maintain and Improve Excellence

Dissemination –
International Network Building

Target External Funding Sources
(both national and international)

Actions planned:

- To create innovation-oriented culture within University research community
- To monitor scientific schools efficiency and optimize their structure
- To facilitate cross-disciplinary and cross-departmental research
- To create inter-University centres and production units
- To support continuous staff skills and competences development
- To perform annual University research facilities renovation
- To create efficient mechanisms of technology transfer and staff innovation activities support

KhAI R&D Strategy response to EU experts recommendations (4)

Recommendations:

Clientele Building

IP Strategy Building

Maintain and Improve Excellence

**Dissemination –
International Network Building**

**Target External Funding Sources
(both national and international)**

Actions planned:

- To increase KhAI research visibility at international level
- To review foreign research papers and available research outputs relevant to KhAI research areas
- To publish papers in foreign research journals, editions, etc. on regular basis
- To ensure regular KhAI research staff participation in relevant conferences, workshops, and other dedicated events (incl. PhD and master students)

KhAI R&D Strategy response to EU experts recommendations (5)

Recommendations:

Clientele Building

IP Strategy Building

Maintain and Improve Excellence

**Dissemination –
International Network Building**

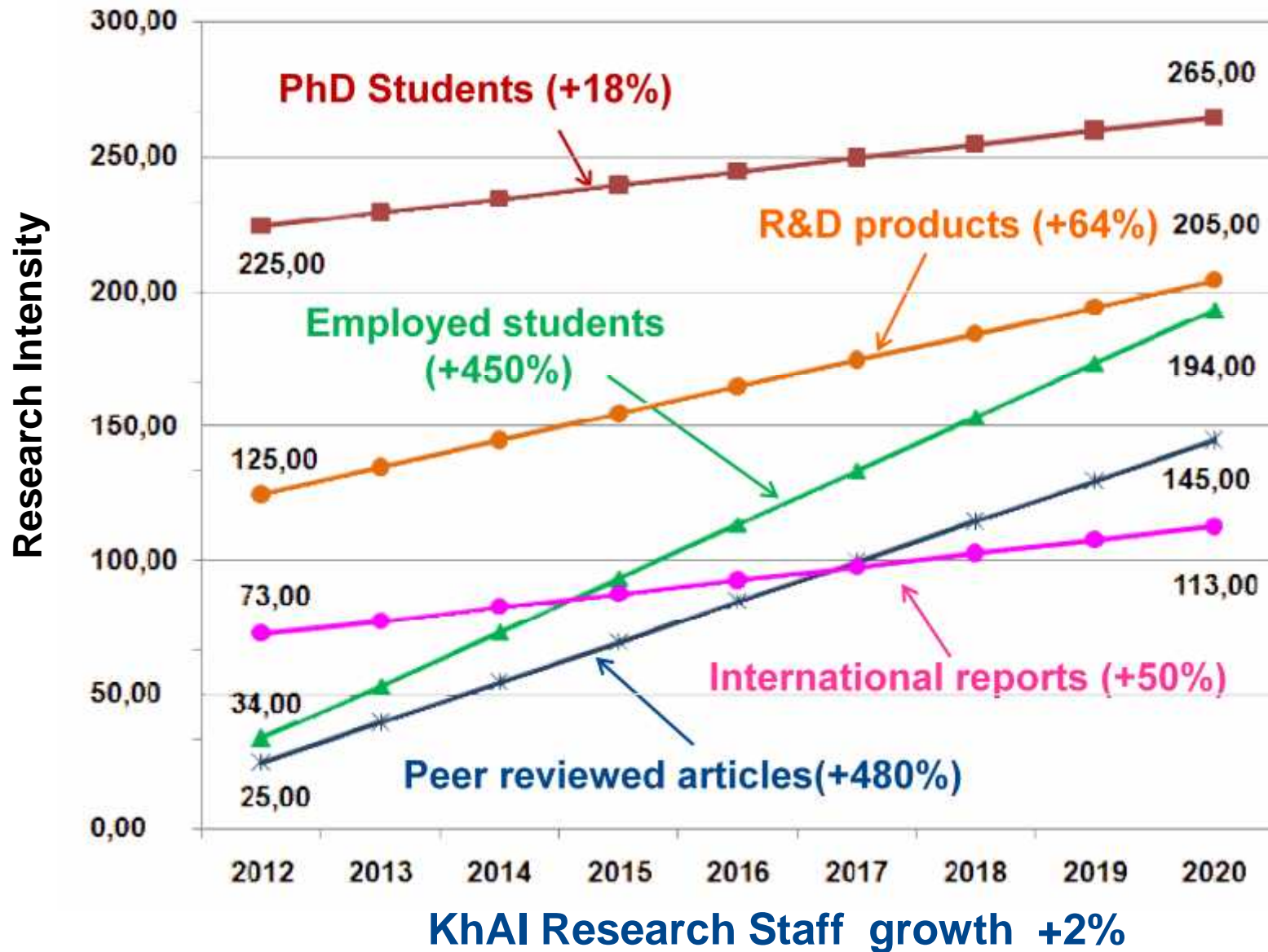
**Target External Funding Sources
(both national and international)**

Actions planned:

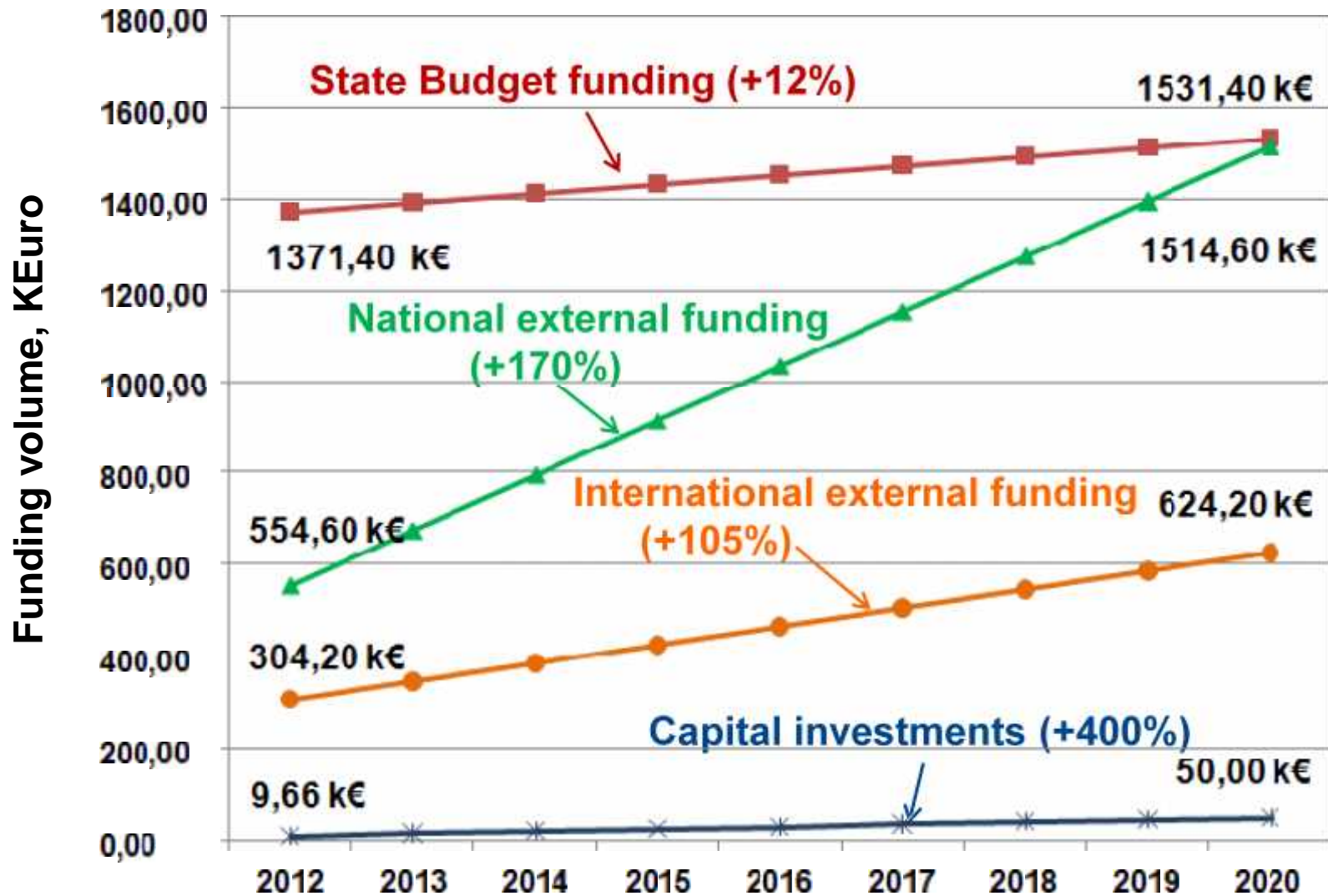
- To monitor constantly external research funding sources
- To create efficient approach for University staff awareness rising on available state/non-state granting programmes and opportunities
- University staff support in application for external funding
- To communicate and interact with industry/business representatives to identify their R&D demands
- To organize workshops on grant writing for University staff

What We Expect to Achieve...

KhAI Expectations: Research intensity

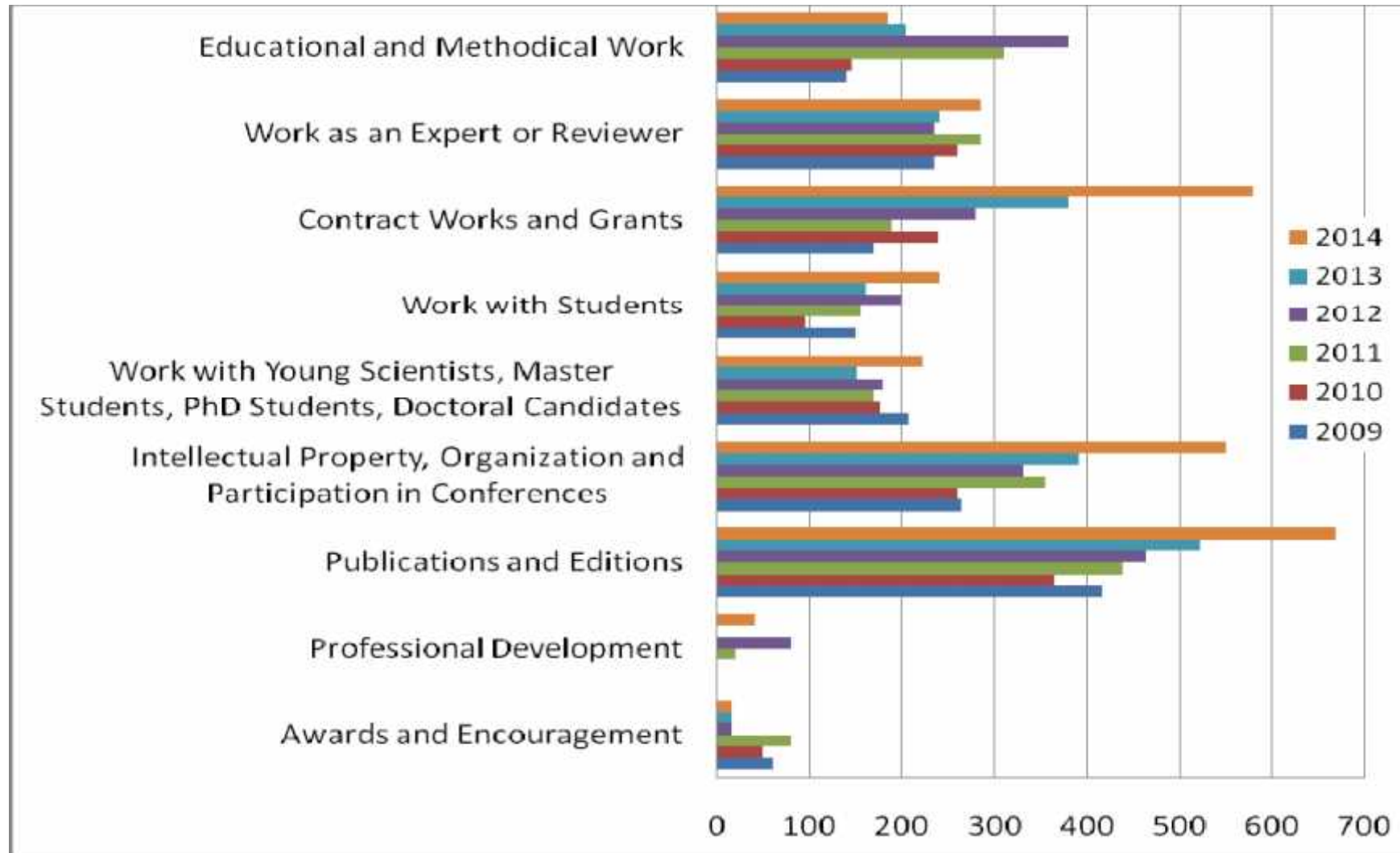


KhAI Expectations: Funding Volume



KhAI Research Staff growth +2%

Progress Monitoring 2015 (Topic C) – 63 parameters in 9 groups





Thanks for your attention