# ACADEMIC STRENGTH OF REYKJAVIK UNIVERSITY

RU Research Services 2014





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### The Academic Strength of Reykjavik University

(Report from RU Research Services, February 2014)

### Introduction

The main objective of this report is to give a comprehensive overview of the academic strength of Reykjavik University (RU) and how it has developed over the years. The report is first and foremost based on data from research reports submitted annually by academic employees with research duties to RU Research Services. It is also based on information from other sources, e.g. national and international competitive research funds.

The overall aim of the RU Research Service is to assist the University in implementing its research strategy (<u>http://en.ru.is/research/about/ru-research-strategy/</u>) and to support academic employees at the University in becoming researchers of international quality. The main three objectives of the RU Research Services are:

- to assist financing research at RU, e.g. by monitoring grant opportunities in Iceland and abroad and provide support in the writing of applications and management of grants
- to monitor and evaluate research activities at RU, e.g. carry out the RU Annual Research Assessment, collect data on research activities, do research statistics and write reports on research development and the academic strength of RU
- 3. to disseminate research activities within and outside RU and build connections with the main funders of research, both national and international funding agencies.

This report is divided into two main chapters. The first chapter is a report on RU publications in peer-reviewed outlets, the second chapter is a report that outlines research grants from national and international competitive research funds. There are three appendixes, the first contains information on publications in peer-reviewed outlets at RU Schools, the second is on grants RU has received from national competitive funds, and the third is on the RU Annual Research Assessment.

#### **RU** publications in peer-reviewed outlets

As stated above, this report is first and foremost based on data from the research reports, which academic employees with research duties submit annually to RU Research Services. The research report is divided into the following six sections: 1. Complete list of research output in peer-reviewed outlets; 2. Complete list of research output in non-peer-reviewed outlets; 3. Talks and presentations; 4. Other research-related work (obtained grants, supervision of research students, awards, editorial work, etc.); 5. Other relevant information; and 6. Other research-related performance criteria.

The section on research output in peer-reviewed outlets is divided into the following five chapters: 1. Articles in peer-reviewed scholarly journals; 2. Articles, posters and abstracts in peer-reviewed conferences/ symposia/proceedings; 3. Peer-reviewed books; 4; Peer-reviewed book chapters; and 5. Other peer-reviewed publications.

All evaluated academic employees are obliged to provide information on whether their publications are RU affiliated or not and whether articles published in scholarly journals are published in so called ISI journals (<u>http://science.thomsonreuters.com/mjl/</u>). ISI is the abbreviation for the Institute for Scientific Information and ISI journals are regarded as very important and influential scientific journals. The most important publishing standards and qualities of ISI journals are timeliness of publication and the peer-review process (at least two expert reviewers per article). Furthermore, the journal's impact and the citation data associated with it are important factors.

Table 1: Academic employees evaluated in the RU Annual Research Assessment 2013 (Source: Annual research reports 2013).

	Number of Professors / Deans	Number of Associate Professors	Number of Assistant Professors	Number of other academic employees*	Total
School of Business	6	8	7	2	23
School of Computer Science	5	4	4	8	21
School Law	2	3	2	5	12
School of Science & Engineering	10	14	13	13	50
Total	23	29	26	28	106

\* Other academic employees: Adjuncts, postdocs, visiting professors and other researchers.

Table 2: FTE's of academic employees evaluated in the RU Annual Research Assessment 2013 (Source: Annual research reports 2013).

	Professors/ Deans	Associate Professors	Assistant Professors	Other academic employees*	Total
School of Business	3,95	5,35	7,00	1,50	17,80
School of Computer Science	5,00	3,80	4,00	7,60	20,40
School of Law	2,00	3,00	2,00	5,00	12,00
School of Science & Engineering	7,65	12,30	8,90	9,95	38,80
Total	18,60	24,45	21,90	24,05	89,00

\* Other academic employees: Adjuncts, postdocs, visiting professors and other researchers.

Table 3: Percentage of academic employees evaluated in the RU Annual Research Assessment
2013, who holds a Ph.D degree (Source: Annual research reports 2013).

	Professors/ Deans	Associate Professors	Assistant Professors	Other academic employees*
School of Business	100,0%	100,0%	71,4%	50,0%
School of Computer Science	100,0%	100,0%	100,0%	87,5%
School of Law	100,0%	0,0%	0,0%	20,0%
School of Science & Engineering	100,0%	92,9%	69,2%	69,2%

\* Other academic employees: Adjuncts, postdocs, visiting professors and other researchers.

Table 4: Gender of evaluated academic employees in the Annual Research Assessment 2013 (Source: Annual research reports 2013).

(M = Males; F = Females)	Professors/ Deans					stant ssors	Other academic employees*	
	М	F	М	F	М	F	М	F
School of Business	67%	33%	87%	13%	29%	71%	100%	0%
School of Computer Science	60%	40%	100%	0%	75%	25%	87%	13%
School of Law	50%	50%	0%	100%	50%	50%	80%	20%
School of Science & Engineering	90%	10%	100%	0%	77%	23%	77%	23%

\* Other academic employees: Adjuncts, postdocs, visiting professors and other researchers.

Publications are counted according to the following method: If an article has two or more authors employed at RU, the article is counted as one publication. The same applies for abstracts, books, book chapters, etc.

Publication traditions are very different from one scientific field to another. Although all statistical data in this report is presented here in the same way for all Schools (departments), it is not done with the aim of enabling a comparison between the Schools. The data is first and foremost presented here to give a comprehensive view of the academic strength of the University and the development of the Schools in this respect.

According to the annual research reports 2013, about 35% of RU publications in peerreviewed outlets are in peer-reviewed scholarly journals, about 57% at peer-reviewed conferences/in conference proceedings and about 8% are peer-reviewed books or book chapters. The total number of publications in peer-reviewed outlets has markedly increased between the years 2007-2013, i.e. tripled (see figure 1).

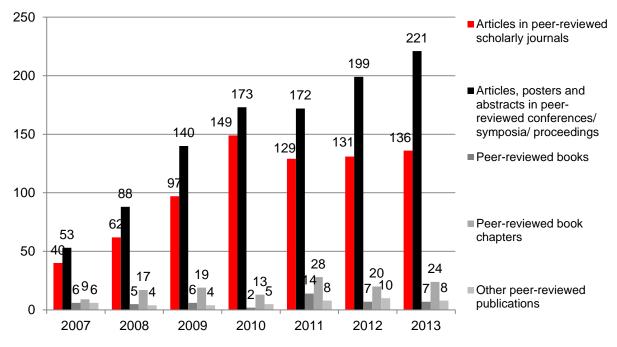


Figure 1: Number of RU affiliated publications in peer-reviewed outlets 2007-2013 (Source: RU Research Reports 2007-2013).

Not only the number of articles in peer-reviewed scholarly journals have been increasing gradually, the proportion of articles published in ISI journals has also increased markedly, i.e. from 55% in the year 2007 to 83% in 2013 (see figure 2). At the School of Business the percentage of ISI publications was 90% in 2013, 92% in School of Computer Science and 85% in School of Science and Engineering (see figure 3).

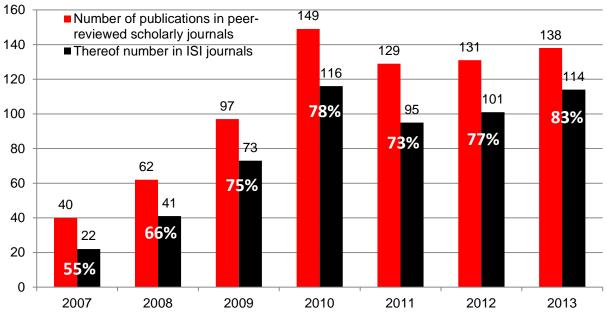


Figure 2: Number of RU affiliated articles in peer-reviewed scholarly journals 2007-2013 and the number of those publications in ISI journals (Source: RU Research Reports 2007-2013).

RU School of Law publishes proportionally more in domestic peer-reviewed outlets than the other schools at RU (the same applies to other national and foreign law departments). It is important to bear in mind, that in some cases it is not relevant to publish the results in other than peer-reviewed domestic outlets. However, these publications may well provide evidence of international excellence if they can be compared favorably with similar studies in other countries.

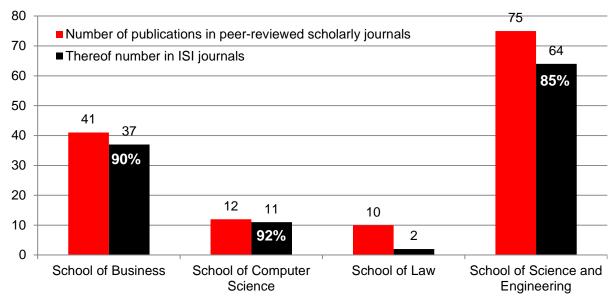


Figure 3: Number of RU affiliated articles in peer-reviewed scholarly journals 2013 and the number of those publications in ISI journals (Source: RU Research Reports 2013).

The number of RU affiliated publications in peer-reviewed outlets annually per academic employee evaluated has increased over the period 2007-2013, from 1,1 in 2007 to 3,7 in 2013, see figure 4. The number of RU affiliated articles in peer-reviewed scholarly journals per academic employee has also increased, i.e. from 0,4 in 2007 to 1,3 in 2013, see figure 5. Number of RU affiliated publications at peer-reviewed conferences have also increased, i.e. from 0,5 in 2007 to 2,1 in 2013, see figure 6. Around 93% of all publications published in the period 2007-2013 are in English, see figure 7.

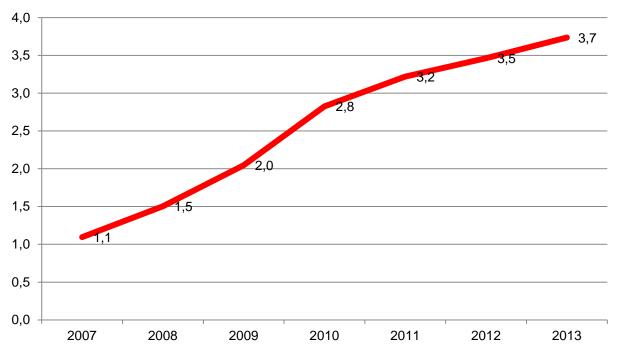


Figure 4: Number of RU affiliated peer-reviewed publications per academic employee evaluated 2007-2013 (Source: RU Research Reports 2007-2013).

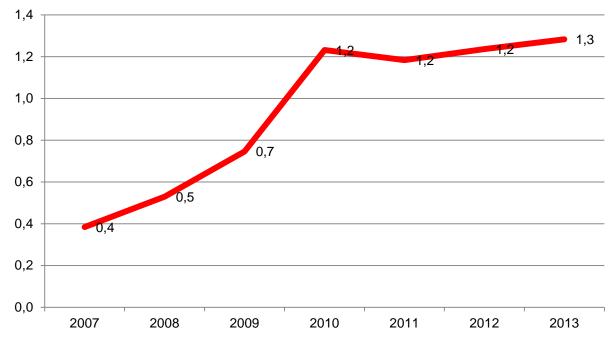


Figure 5: Number of RU affiliated articles in peer-reviewed scholarly journals per academic employee evaluated 2007-2013 (Source: RU Research Reports 2007-2013).

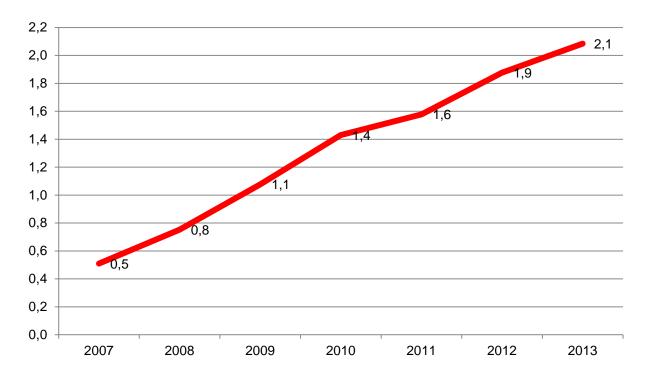


Figure 6: Number of RU affiliated publications at peer-reviewed conferences per academic employee evaluated 2007-2013 (Source: RU Research Reports 2007-2013).

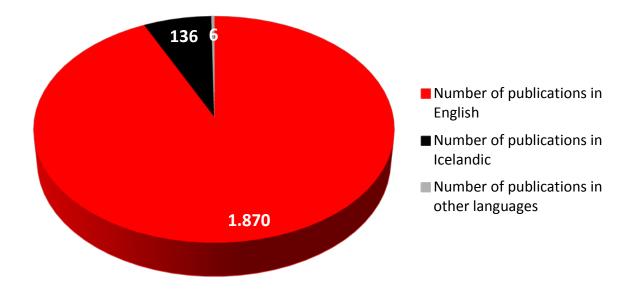


Figure 7: Number of RU affiliated publications in peer-reviewed outlets per language 2007-2013 (Source: RU Research Reports 2007-2013).

#### Research grants from national and international competitive funds

The external financing of research at RU has systematically been strengthened by significantly increasing efforts to obtain research support from domestic and foreign sources. The success rate in competitive research funds, where grants proposals of academics are peer-reviewed, is an important criterion of academic strength. Therefore, it is very important that the University has efficient internal support, i.e. research services, to monitor opportunities for obtaining external research funds and to provide assistance in applying, developing budgets, and lending other administrative support.

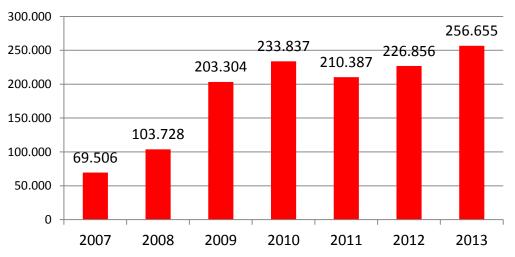


Figure 8: Grants to RU from national competitive research funds 2007-2013, in thousand ISK (Source: The Icelandic Centre for Research – RANNÍS and other Icelandic competitive funds).

In the years 2007-2013, the total allocation from national competitive funds has tripled, from around 70 million ISK in 2007 to around 256 million ISK in 2013, see figure 8.

Figure 9 shows the allocation to RU affiliated scientists from the Icelandic Research Fund of the Science and Technology Policy Council. The allocation has increased more than sevenfold in the period from 2005-2013, i.e. from 18,6 million ISK in 2005 to around 134 million ISK in 2013.

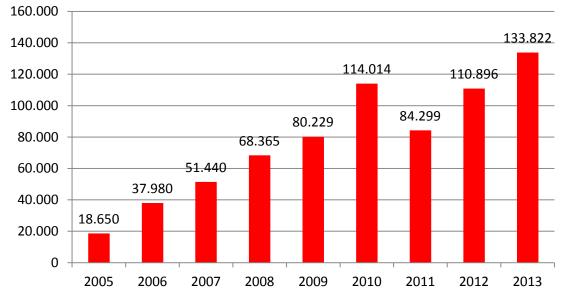


Figure 9: Allocation to RU affiliated scientists from the Icelandic Research Fund 2005-2013, in thousand ISK (Source: The Icelandic Centre for Research – RANNÍS).

Besides receiving grants from national research funds, the University receives several grants from international research funds, e.g. grants from the EU Framework Program. Figure 10 shows foreign grant revenues 2007-2013.

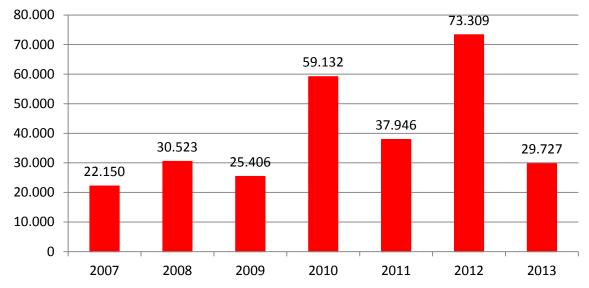
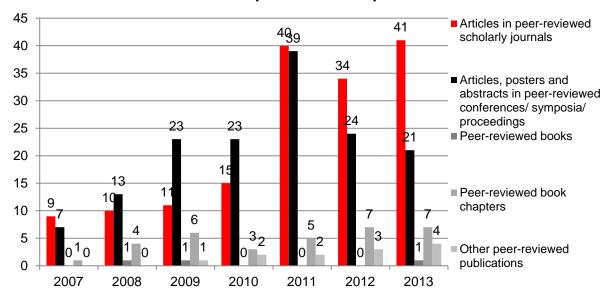


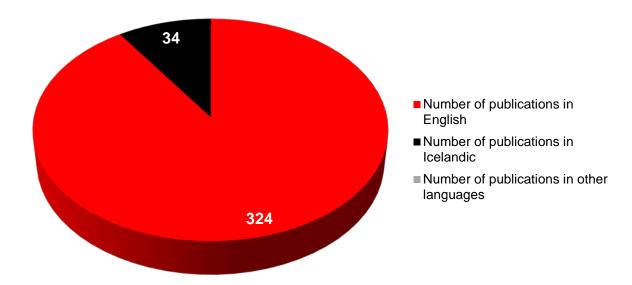
Figure 10: Foreign grant revenues 2007-2013, in thousand ISK (Source: RU Finance Department).

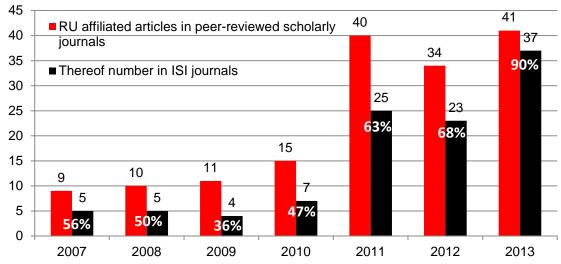
## Appendix I – Publications in peer-reviewed outlets at RU Schools A: Publications in peer-reviewed outlets 2007-2013, School of Business



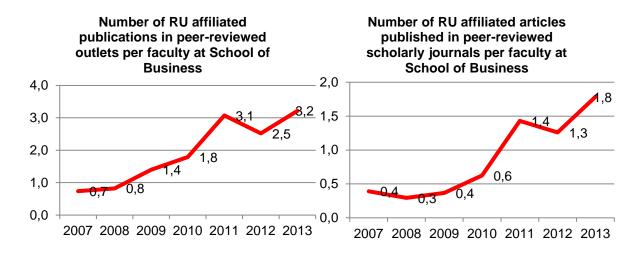
Number of RU affiliated publications in peer-reviewed outlets

Number of RU affiliated peer-reviewed publications per language 2007-2013

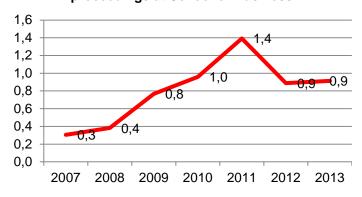




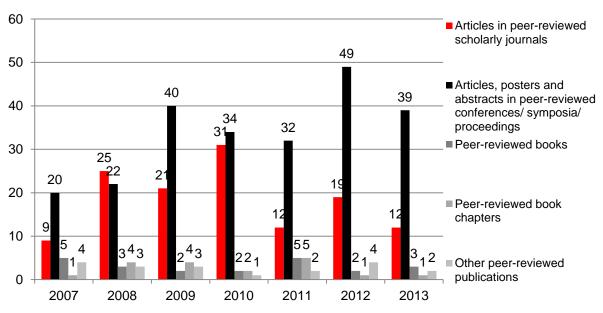
## Number of RU affiliated articles in peer-reviewed scholarly journals



Number of RU affiliated articles, posters and abstracts published per faculty in peer-reviewed conferences/ symposia/ proceedings at School of Business

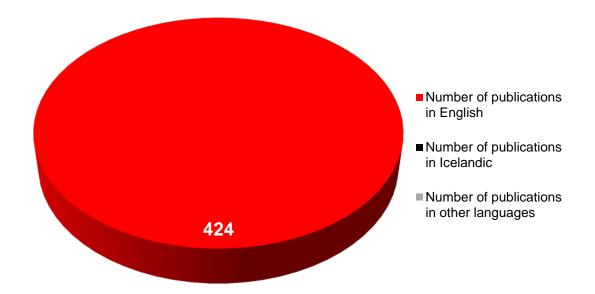


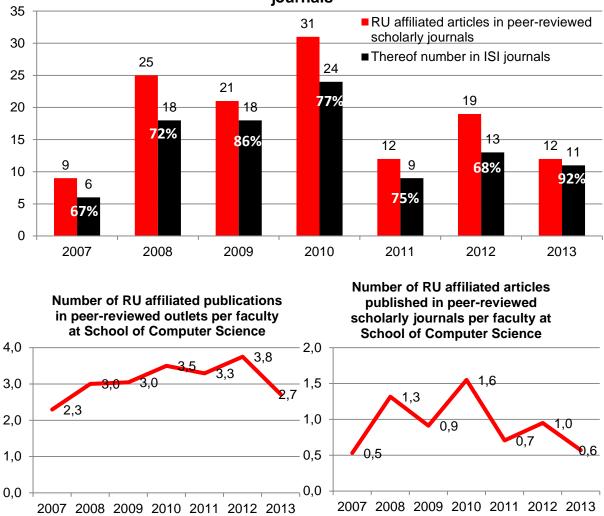
# B: Publications in peer-reviewed outlets 2007-2013, School of Computer Science



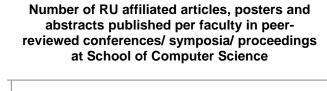
Number of RU affiliated publications in peer-reviewed outlets

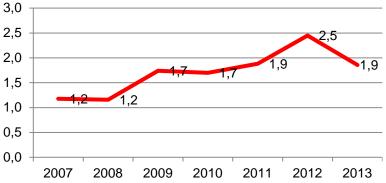
Number of RU affiliated peer-reviewed publications per language 2007-2013



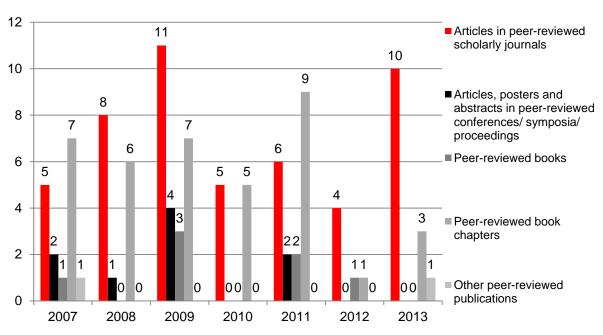






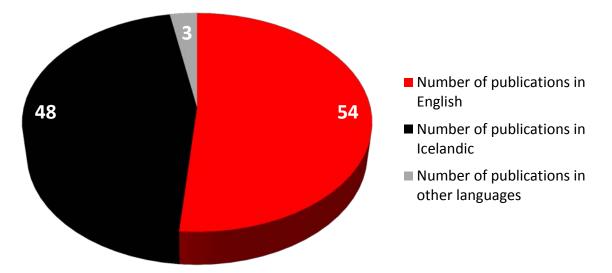


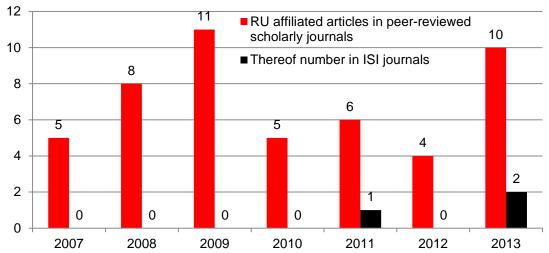
### C: Publications in peer-reviewed outlets 2007-2013, School of Law



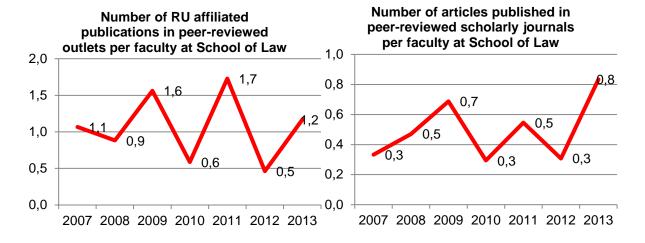
Number of RU affiliated publications in peer-reviewed outlets

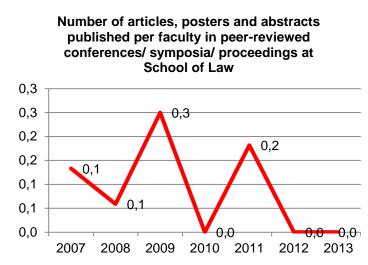
Number of RU-affiliated peer-reviewed publications per language 2007-2013



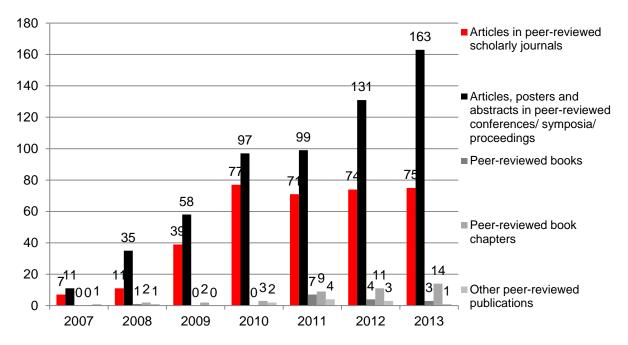


## Number of RU affiliated articles in peer-reviewed scholarly journals



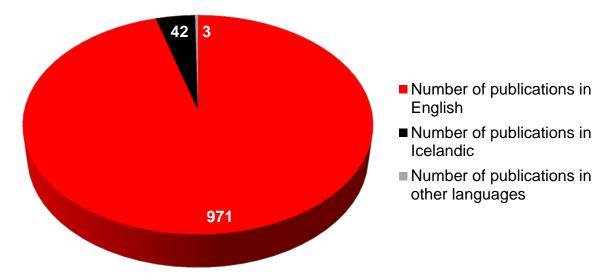


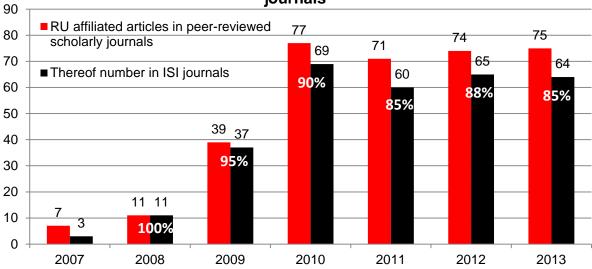
# D: Publications in peer-reviewed outlets 2007-2013, School of Science and Engineering



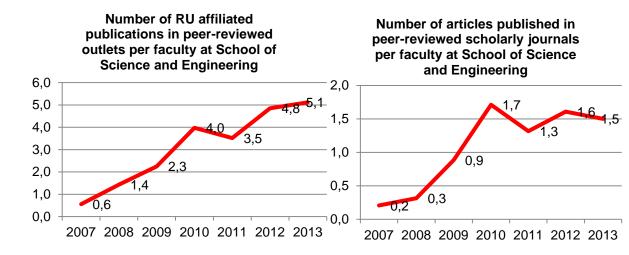
Number of RU affiliated publications in peer-reviewed outlets

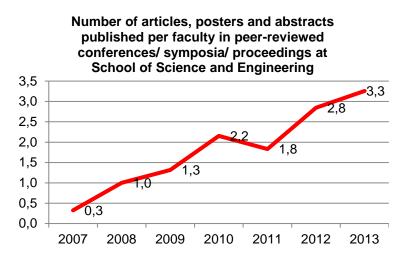
### Number of RU-affiliated publications per language 2007-2013





## Number of RU affiliated articles in peer-reviewed scholarly journals





## Appendix II - Research grants from national competitive funds

### A: Grants 2008

Principal Investigator	Project title	Type of grant	Allocated (Thousand ISK)
THE ICELANDIC RESEAR	RCH FUND 2008		
Ármann Gylfason	Scale Interaction in Turbulence	Project grant	6.080
Björn Þór Jónsson	Efficient and Effective Copyright Protection for Videos	Patent grant	500
Björn Þór Jónsson	Integrated Browsing and Searching of Personal Digital Image Collections	Project grant	3.500
Brynjar Karlsson	Investigation of the propagation of electric activity of the uterus for the prediction of preterm labour	Project grant	4.400
Einar Steingrímsson	Permutations, Patterns and Algebras	Project grant	2.000
Einar Steingrímsson	Permutation Patterns	Grant of excellence	8.886
Guðni Th. Jóhannesson	Threats to Iceland's internal security, 1945- 1991	Project grant	575
Halldór G. Svavarsson	Crystal growth of p-n silicon junctions for solar cells applications	Project grant	2.000
Hannes Högni Vilhjálmsson	Humanoid Agents in Social Game Environments	Grant of excellence	13.450
Hrafn Loftsson	Improved tagging accuracy of Icelandic text	Project grant	1.550
Karl Ægir Karlsson	Zebrafish as a model system for sleep research	Project grant	4.425
Karl Ægir Karlsson	Emotional modulation of hypothalamic activity	Project grant	734
Leifur Geir Hafsteinsson	Icelandic job applicants: Faking and reaction to selection methods	Project grant	975
Luca Aceto	New Developments in Operational Semantics	Project grant	5.000
Luca Aceto	The Equational Logic of Parallel Processes	Project grant	3.800
Magnús Már Halldórsson	Parameterized algorithms on hypergraphs	Project grant	2.700
Margrét Vala Kristjánsdóttir	Procedure and assessment of Cumulative Environmental Effects	Preparatory grant	500
Yngvi Björnsson	Development of a General Game-Playing Agent	Project grant	5.000
Þorlákur Karlsson/Páll Ríkharðsson	Icelandic management accounting: Characteristics, development and future directions	Project grant	3.290
		Total:	69.365
THE EQUIPMENT FUND	2008	1	
Kristinn R. Thórisson	Research Platform for Interactive Intelligences and Agent-Based Simulation	Equipment grant	1.938
		Total:	1.938
THE TECHNOLOGY DEV			
Halldór G. Svavarsson	Eco-silica for skincare product	Project grant	4.500
Hlynur Stefánsson	Nostradamus	Project grant	8.000
		Total:	12.000

Chien Tai Shill	Math Olympiad for Icelandic elementary	Project grant	1.500
Haraldur Sigþórsson	schools, an evaluation Environmental impacts of lighting in rural	Project grant	2.000
Þórður Víkingur Friðgeirsson	areas Evaluation of risk in high temperature geothermal drilling	Project grant	750
		Total:	8.375
THE ICELANDIC RESEAR	CH FUND FOR GRADUATE STUDENTS 200	08	
Arnar Birgisson (Luca Aceto)	Compositionality for logics of security	Study grant	800
Kristján Valur Jónsson (Úlfar Erlingsson)	Scalable, distributed security policy enforcement for Web applications	Study grant	7.250
		Total:	8.050
<b>BJARNI BENEDIKTSSON</b>	FUND 2008	· · ·	
Margrét Vala Kristjánsdóttir/ Ragnhildur Helgadóttir	The substance and application of the Constitution's Article 15	Project grant	500
Oddný Mjöll Arnardóttir	The regulation of medical research - public administration and the rights of participants	Project grant	500
		Total:	1.000
ICELANDIC PENSION FU	NDS ASSOCIATION 2008	· · ·	
Ólafur Ísleifsson	Pension funds in the general labour market	Project grant	1.000
		Total:	1.000
JULES VERNE FUND 200	8		
Björn Þór Jónsson	BrowSearch – Integrating Image Browsing and Searching	Collaboration grant	500
Brynjar Karlsson	Analysis of the propagation of electric activity of the uterus for the prediction of preterm labour	Collaboration grant	500
		Total:	1.000
ICELANDIC ROAD ADMIN	ISTRATION RESEARCH FUND 2008		
Haraldur Sigþórsson	Road building profitability analysis of cost factors, distance and time values	Project grant	500
		Total:	500

### B: Grants 2009

Principal Investigator	Project title	Type of grant	Allocated (Thousand ISK)
THE ICELANDIC RESEAR	CH FUND 2009		
Ármann Gylfason	Scale Interaction in Turbulence	Project grant	5.270
Björn Þór Jónsson	Integrated Browsing and Searching of Personal Digital Image Collections	Project grant	3.500
Brynjar Karlsson	Investigation of the propagation of electric activity of the uterus for the prediction of preterm labour	Project grant	4.400

Einar Steingrímsson	Combinatorics on Permutations and Words	Grant of excellence	24.600
Einar Steingrímsson	Permutations, Patterns and Algebras	Project grant	2.000
Guðni Th. Jóhannesson	Threats to Iceland's internal security, 1945- 1991	Project grant	1.659
Halldór G. Svavarsson	Crystal growth of p-n silicon junctions for solar cells applications	Project grant	2.600
Hannes Högni Vilhjálmsson	Humanoid Agents in Social Game Environments	Grant of excellence	14.050
Hrafn Loftsson	Improved tagging accuracy of Icelandic text	Project grant	600
Karl Ægir Karlsson	Zebrafish as a model system for sleep research	Project grant	4.000
Luca Aceto	New Developments in Operational Semantics	Project grant	5.000
Magnús Már Halldórsson	Algorithms for ad-hoc and sensor networks	Project grant	3.110
Valdimar Sigurðsson	Consumer Food Choice: An In-Store Experimental Analysis	Postdoctoral grant	4.440
Yngvi Björnsson	Development of a General Game-Playing Agent	Project grant	5.000
		Total:	80.229
STRATEGIC RESEARCH CLUSTERS 2009	PROGRAMME FOR CENTRES OF EXCELLE	NCE AND RESEARCH	
Kristinn R. Þórisson	Icelandic Institute for Intelligent Machines	Grant of excellence	55.000
		Total:	55.000
THE EQUIPMENT FUND 2	2009	· · ·	
Björn Þór Jónsson og Herwig Lejsek	Research Facilities for Very Large Scale Video Retrieval	Equipment grant	2.980
Karl Ægir Karlsson	In vivo/in vitro electrophysiology set-up	Equipment grant	4.493
Karl Ægir Karlsson	MHW-3 Hydraulic micromanipulator; NMN25 Micromanipulator; PC-10 pipette puller; 4. MF-900 Microforge; 5.Grass Stimulus isolation unit; 6. Grass Rack; 7. SZ51 Olympus stereo microscope; 8. Epiflourescence unit; 9. Thermo Scientific Microtome	Equipment grant	5.809
Kristinn R. Þórisson, Eric Nivel og Ari K. Jónsson	Computing Power	Equipment grant	2.033
Ólafur E. Sigurjónsson og Karl Ægir Karlsson	StepOne Real Time PCR system from Applied Biosystem	Equipment grant	1.575
		Total:	16.890
THE TECHNOLOGY DEVE		1	
Halldór Guðfinnur Svavarsson	Eco-silica for skincare product - Prototypes	Project grant	3.844
Haraldur Sigþórsson	Interactive road markers	Preparatory grant	750
Hjalti Harðarson	Artificial Bird	Pioneer grant	3.000
Þórður Helgason	Finger rehabilitation system	Project grant	7.900
Yngvi Björnsson	Generic Casual Game-Playing Engine Prototype	Pioneer grant	5.000
		Total:	20.494
	NERGY RESEARCH FUND 2009	1	
Ásdís Hlökk Theodórsdóttir	EIA screening - project categories and threshold values	Project grant	700
Haraldur Sigþórsson	The traffic safety effect of geothermal	Project grant	1.000

Hlynur Stefánsson	The use of electric cars in Reykjavik	Project grant	4.000
Ingólfur Þorbjörnsson	Materials selection for geothermal utilization	Project grant	3.151
Jón Örn Jónsson	Domestic Oxygen for Icelandic Markets	Project grant	1.000
Kristín Haraldsdóttir	EEA and EU law in the field of natural resources and environmental law	Project grant	750
		Total:	10.601
THE ICELANDIC RESEA	RCH FUND FOR GRADUATE STUDENTS 200	9	
Hilmar Finnsson/Yngvi Björnsson	Dynamic Search Methods in General Game Playing	Study grant	7.950
Sandra Martha Elfride Lyngdorf / Þórdís Ingadóttir	Compensation mechanisms and the European Court	Study grant	6.890
		Total:	14.840
LANDSVIRKJUN ENERG	Y RESEARCH FUND 2009		
Halldór G. Svavarsson	New methods for making silicon solar-cells	Project grant	2.250
		Total:	2.250
BJARNI BENEDIKTSSO	N FUND 2009		
Gunnar Þór Pétursson	Derogations from fundamental freedoms - a methodological challenge	Project grant	500
		Total:	500
ICELANDIC PENSION FU	JNDS ASSOCIATION 2009		
Guðmundur Sigurðsson	How do pension funds evaluate the loss of earning capacity of their members	Project grant	1.200
		Total:	1.200
ICELANDIC ROAD ADMI	NISTRATION RESEARCH FUND 2009		
Haraldur Sigþórsson	Wash boarding on gravel roads	Project grant	300
Haraldur Sigþórsson	The traffic safety effect of geothermal steam	Project grant	1.000
		Total:	1.300
		TOTAL:	203.304

### C: Grants 2010

Principal Investigator	Project title	Type of grant	Allocated (Thousand ISK)
THE ICELANDIC RESEAR	CH FUND 2010		
Andrei Manolescu	Coulomb interaction and current flow in quantum devices	Project grant	6.380
Anna Ingólfsdóttir	Processes and Modal Logics	Project grant	4.900
Ármann Gylfason	Scale Interaction in Turbulence	Project grant	3.650
Einar Steingrímsson	Combinatorics on Permutations and Words	Grant of excellence	24.600
Einar Steingrímsson	Permutations, Patterns and Algebras	Project grant	2.000
Guðni Th. Jóhannesson	Threats to Iceland's internal security, 1945- 1991	Project grant	1.659
Hannes Högni Vilhjálmsson	Humanoid Agents in Social Game Environments	Grant of excellence	12.650
Haraldur Sigþórsson	An investigation into human behaviour related to traffic culture	Preparatory grant	500
Heiðdís B. Valdimarsdóttir	Developing and Testing an Interactive Decision Aid for Newly Diagnosed Prostate	Project grant	5.819

	Cancer Patients		
Karl Ægir Karlsson	Zebrafish as a model system for sleep research	Project grant	3.820
Luca Aceto	Meta-theory of Algebraic Process Theories	Project grant	6.660
Luca Aceto	New Developments in Operational Semantics	Project grant	5.000
Magnús Már Halldórsson	Algorithms for ad-hoc and sensor networks	Project grant	6.695
Ólafur Guðmundsson	Earthquake research on Reykjanes peninsula	Project grant	6.655
Rögnvaldur J. Sæmundsson	The Relationship between Aesthetic Design and Innovation Performance	Project grant	7.376
Sigurður Ingi Erlingsson	Coherent population trapping as a probe of non-Markovian decay	Project grant	3.480
Valdimar Sigurðsson	Consumer Food Choice: An In-Store Experimental Analysis	Postdoctoral grant	4.440
Yngvi Björnsson	Development of a General Game-Playing Agent	Project grant	4.760
		Total:	111.044
STRATEGIC RESEARCH CLUSTERS 2010	PROGRAMME FOR CENTRES OF EXCELLE	ENCE AND RESEARCH	
Kristinn R. Þórisson	Icelandic Institute for Intelligent Machines	Grant of excellence	55.000
		Total:	55.000
THE EQUIPMENT FUND 2		1 1	
RU School of Health and Education	Developing research infrastructure at School of Health and Education	Equipment grant	5.000
Ármann Gylfason	Optical detection systems for fluid dynamics research	Equipment grant	7.372
Slawomir Koziel	Computing cluster for high-performance distributed electromagnetic/aerodynamic simulation	Equipment grant	2.476
		Total:	14.848
THE TECHNOLOGY DEV	ELOPMENT FUND 2010		
Halldór Guðfinnur Svavarsson	Eco-silica for skincare product - Prototypes	Project grant	3.500
Hjalti Harðarson	Artificial Bird	Pioneer grant	5.000
Þórður Helgason	Finger rehabilitation system	Project grant	6.700
		Total:	15.200
	NERGY RESEARCH FUND 2010	1	
Guðrún Sævarsdóttir	Potential energetic and economic advantages of lithium battery manufacturing using low grade heat and renewable energy in Iceland	Project grant	1.500
		Total:	1.500
THE ICELANDIC RESEAR	CH FUND FOR GRADUATE STUDENTS 20	10	
Birna Baldursdóttir / Inga Dóra Sigfúsdóttir	The Impact of Physical Activity on Adolescent's Mental Health and Quality of Life	Study grant	7.950
Björg Guðjónsdóttir / Þórður Helgason	Use of ultrasound current source density imaging (UCSDI) to monitor activity and electrical stimulation of muscles	Study grant	840
Haukur Pálmason / Björn Þór Jónsson	Automatic Genre Classification of Icelandic Music	Study grant	840
Jón Ingi Sveinbjörnsson / Bjarni V. Halldórsson	Algorithms and Software for Complex Genetic Variants	Study grant	6.095
		Total:	15.725

		TOTAL:	221.117
		Total:	2.000
Ásdís Hlökk Theodórsdóttir	Planning of residential development in the Reykjavik fringe 2000-2009	Project grant	2.000
HOUSING FINANCING F	UND 2010		
		Total:	3.050
Guðrún Svavarsdóttir	Potential economic and environmental advantage in direct use of geothermal heat in Lithium-Ion battery production	Project grant	2.300
Haraldur Sigþórsson	The profitability of road construction in a new light	Project grant	750
NATIONAL ENERGY AU	RTHORITY'S FUND 2010	1	
		Total:	500
Haraldur Sigþórsson	The traffic safety effect of geothermal steam from Hellisheiði	Project grant	500
ICELANDIC ROAD ADMI	NISTRATION RESEARCH FUND 2010		
		Total:	2.250
Halldór Guðfinnur Svavarsson	New methods for making silicon solar-cells	Project grant	750
Guðrún A. Sævarsdóttir	Relative permeabilities of two phase flow in geothermal reservoirs	Project grant	1.500
LANDSVIRKJUN ENERG	Y RESEARCH FUND 2010		

### D: Grants 2011

Principal Investigator	Project title	Type of grant	Allocated (Thousand ISK)
THE ICELANDIC RESEAR	CH FUND 2011		
Andrei Manolescu	Coulomb interaction and current flow in quantum devices	Project grant	6.700
Anna Ingólfsdóttir	Processes and Modal Logics (PROMOLO)	Project grant	4.900
Heiðdís B. Valdimarsdóttir	Developing and Testing an Interactive Decision Aid for Newly Diagnosed Prostate Cancer Patients	Project grant	7.314
Jack James	Biobehavioural Analysis of Adolescent Reactivity to Stress	Project grant	6.560
Kristinn R. Þórisson	Robust Continuous Machine Learning of Complex Realtime Communication	Project grant	6.120
Luca Aceto	Meta-Theory of Algebraic Process Theories	Project grant	6.660
Magnús Már Halldórsson	Algorithms for ad-hoc and sensor networks	Project grant	7.560
Marco Raberto	Financial instability, credit rationing and business cycles in an agent-based model: The case of Iceland	Project grant	5.600
Marjan Sirjani	Timed Asynchronous Reactive Objects in Distributed Systems: TARO	Project grant	6.700
Rögnvaldur J. Sæmundsson	The relationship between aesthetic design and innovation performance	Project grant	5.945
Sigurður Ingi Erlingsson	Coherent population trapping as a probe of non-Markovian decay	Project grant	3.530
Slawomir Koziel	Robust Automated Surrogate-Based Optimization of Microwave and RF	Project grant	4.400

	Structures and Devices		
Valdimar Sigurðsson	Consumer Food Choice: An In-Store Experimental Analysis	Project grant	4.440
Yngvi Björnsson	General Intelligence Problem-Solving Agents	Project grant	7.870
		Total:	84.299
STRATEGIC RESEARCH CLUSTERS 2011	PROGRAMME FOR CENTRES OF EXCELLE	ENCE AND RESEARCH	
Kristinn R. Þórisson	Icelandic Institute for Intelligent Machines	Grant of excellence	55.000
		Total:	55.000
THE EQUIPMENT FUND 2	2011		
Andrei Manolescu	Computer cluster for multidisciplinary scientific research	Equipment grant	11.339
Jack James	Mobile Bio-behavioural Laboratory	Equipment grant	11.450
		Total:	22.789
THE TECHNOLOGY DEVE	ELOPMENT FUND 2011		
Karl Ægir Karlsson	Drug screening in Zebrafish	Project grant	9.000
Herwig Lejsek	Forensic Image Identifier and Analyzer	Project grant	12.500
Leifur Þór Leifsson	Hermun Togbúnaðar	Project grant	5.000
Þórður Helgason	Fingurendurhæfir	Project grant	4.399
	-	Total:	30.899
THE ICELANDIC RESEAR	CH FUND FOR GRADUATE STUDENTS 201	1	
Eiríkur Jónsson / Leifur Þór Leifsson	Aerodynamic Optimization of Wings by Variable-Resolution Modeling	Study grant	880
Eugen-Ioan Goriac / Luca Aceto	Extending and Axiomatizing Structural Operational Semantics: Theory and Tools	Study grant	6.720
		Total:	7.600
LANDSVIRKJUN ENERG	( RESEARCH FUND 2011		
Guðrún A. Sævarsdóttir	Relative permeabilities of two phase flow in geothermal reservoirs	Project grant	3.000
Halldór G. Svavarsson	Silicon nanowires for solar cells applications	Project grant	1.800
Yngvi Björnsson	Modeling of Long-Term Hydrothermal Systems Operators	Project grant	2.500
		Total:	7.300
ICELANDIC ROAD ADMIN	IISTRATION RESEARCH FUND 2011		
Haraldur Sigþórsson	Zero vision in traffic safety for Iceland	Project grant	2.000
		Total:	2.000
EDVARD SIGURDSSON N	MEMORIAL FUND 2011		
Arney Einarsdóttir/Katrín Ólafsdóttir	From HR downsizing to recovery	Project grant	500
		Total:	500
		TOTAL:	210.387

### E: Grants 2012

Principal Investigator	Project title	Type of grant	Allocated (Thousand ISK)
THE ICELANDIC RESEAR	CH FUND 2012		

Andrei Manolescu	Coulomb interaction and current flow in quantum devices	Project grant	5.760
Anna Ingólfsdóttir	Processes and Modal Logics (PROMOLO)	Project grant	4.900
Ágúst Valfells	Properties of microscopic vacuum electronic devices	Project grant	3.892
Ármann Gylfason	Lagrangian dynamics in convective turbulence	Project grant	7.580
Inga Dóra Sigfúsdóttir	Multilevel Analysis of Risk and Protective Factors for Risky Behaviours in Adolescents	Project grant	5.400
Jack James	Biobehavioural Analysis of Adolescent Reactivity to Stress	Project grant	6.560
Kristinn R. Þórisson	Robust Continuous Machine Learning of Complex Realtime Communication	Project grant	6.490
Luca Aceto	Meta-Theory of Algebraic Process Theories	Project grant	6.660
Magnús Már Halldórsson	Algorithms for ad-hoc and sensor networks	Grant of excellence	15.670
Marco Raberto	Financial instability, credit rationing and business cycles in an agent-based model: The case of Iceland	Project grant	8.020
Marjan Sirjani	Timed Asynchronous Reactive Objects in Distributed Systems: TARO	Project grant	8.520
Rögnvaldur J. Sæmundsson	The relationship between aesthetic design and innovation performance	Project grant	5.876
Sigurður Ingi Erlingsson	Coherent population trapping as a probe of non-Markovian decay	Project grant	3.530
Slawomir Koziel	Robust Automated Surrogate-Based Optimization of Microwave and RF Structures and Devices	Project grant	4.440
Slawomir Koziel	Computer aided design methodologies for microwave and millimeter-wave substrate integrated circuits for wireless applications	Project grant	4.440
Ute Schiffel	Analyzing Software Encoding Techniques: ASET	Postdoctoral grant	6.378
Yngvi Björnsson	General Intelligence Problem-Solving Agents	Project grant	6.780
		Total:	110.896
CLUSTERS 2012	PROGRAMME FOR CENTRES OF EXCELLE	NCE AND RESEARCH	
Kristinn R. Þórisson	Icelandic Institute for Intelligent Machines	Grant of excellence	55.000
		Total:	55.000
THE TECHNOLOGY DEV	ELOPMENT FUND 2012	·	
Eyjólfur Ingi Ásgeirsson / Hlynur Stefánsson	AGR Promotions	Project grant	10.000
Ágúst Valfells	EVA System	Project grant	10.000
Jón Guðnason/Kristinn Andersen	Automated Pinbone Removal In Cod and Whitefish (APRICOT)	Project grant	2.300
Eyjólfur Ingi Ásgeirsson	The missing link	Project grant	9.000
Leifur Þór Leifsson	Birdlike UAV	Project grant	10.000
		Total:	41.300
THE ICELANDIC RESEAR	RCH FUND FOR GRADUATE STUDENTS 201	2	
Ali Jafari / Marjan Sirjani	Timed Asynchronous Reactive Objects in Distributed Systems	Study grant	8.400

		Total:	8.400
LANDSVIRKJUN ENERG	Y RESEARCH FUND 2012		
Guðrún A. Sævarsdóttir	Relative permeabilities for two phase flow of water and steam in geothermal reservoirs	Project grant	3.000
Fjóla Guðrún Sigtryggsdóttir	Health monitoring of dams and reservoirs	Project grant	1.500
		Total:	4.500
ICELANDIC ROAD ADMIN	ISTRATION RESEARCH FUND 2012		
Eyþór Rafn Þórhallsson	Fiber reinforced glulam beams	Project grant	2.200
		Total:	2.200
HOUSING FINANCING FU	IND 2012		
Eyþór Rafn Þórhallsson	Fiber reinforced glulam beams	Project grant	2.200
Eyþór Rafn Þórhallsson	E-module of Icelandic concrete	Project grant	2.360
		Total:	4.560
		TOTAL:	226.856

#### F: Grants 2013

Principal Investigator	Project title	Type of grant	Allocated (Thousand ISK)
THE ICELANDIC RESEAR	RCH FUND 2013		
Ágúst Valfells	Properties of microscopic vacuum electronic devices	Project grant	6.955
Ármann Gylfason	Lagrangian dynamics in convective turbulence	Project grant	7.710
Dario Della Monica	Decidability and Expressiveness for Interval Temporal Logics	Postdoctoral grant	4.690
Hannes Högni Vilhjálmsson	Icelandic Language and Culture Training in Virtual Reykjavík	Project grant	6.120
Inga Dóra Sigfúsdóttir	Multilevel Analysis of Risk and Protective Factors for Risky Behaviours in Adolescents	Project grant	8.195
Jack James	Biobehavioural Analysis of Adolescent Reactivity to Stress	Project grant	6.860
Jack James	Effects of Dietary Caffeine Amongst Icelandic Youth	Project grant	6.654
Kamilla Rún Jóhannsdóttir	Monitoring cognitive workload in ATC using speech analysis	Project grant	5.130
Karl Ægir Karlsson	The behavioural and electrophysiological effects of Kcna and bHLH knock-down on sleep in zebrafish	Project grant	4.402
Kristinn R. Þórisson	Robust Continuous Machine Learning of Complex Realtime Communication	Project grant	6.490
Leifur Þór Leifsson	Aerodynamic Shape Optimization by Physics-Based Surrogates	Project grant	4.440
Magnús Már Halldórsson	Design of Ad-Hoc Wireless Networks	Grant of Excellence	21.520
Marco Raberto	Financial instability, credit rationing and business cycles in an agent-based model: the case of Iceland	Project grant	5.800

Marjan Sirjani	Timed Asynchronous Reactive Objects in Distributed Systems: TARO	Project grant	4.180
Sigurður Freyr Hafstein	Algorithms to compute Lyapunov functions	Project grant	3.480
Slawomir Marcin Koziel	Robust Automated Surrogate-Based Optimization of Microwave and RF Structures and Devices	Project grant	4.440
Slawomir Marcin Koziel	Computer aided design methodologies for microwave and millimeter-wave substrate integrated circuits for wireless applications	Project grant	4.440
Slawomir Marcin Koziel	Characterization, modeling, and design methodologies for integrated photonic components and circuits	Project grant	5.636
Stephan Schiffel	Combining Heuristic Search and Monte- Carlo Methods in General Game Playing	Postdoctoral grant	6.340
Yngvi Björnsson	Simulation- and Heuristic-Based Search in General Game Playing and Beyond	Project grant	10.340
		Total:	133.822
STRATEGIC RESEARCH CLUSTERS 2013	PROGRAMME FOR CENTRES OF EXCELL	ENCE AND RESEARCH	
Kristinn R. Þórisson	Icelandic Institute for Intelligent Machines	Grant of excellence	55.000
		Total:	55.000
THE TECHNOLOGY DEV	ELOPMENT FUND 2013		
Jón Guðnason/Birgir Már Þorgeirsson	Personal Based ATC Training	Project grant	6.981
Karl Ægir Karlsson	Trawling for novel sleep medications	Project grant	10.000
Eyjólfur Ingi Ásgeirsson / Hlynur Stefánsson	AGR Promotions	Project grant	10.000
Jón Guðnason/Kristinn Andersen	Automated Pinbone Removal In Cod and Whitefish (APRICOT)	Project grant	10.000
Eyjólfur Ingi Ásgeirsson	The missing link	Project grant	9.000
Leifur Þór Leifsson	Birdlike UAV	Project grant	10.000
		Total:	55.981
LANDSVIRKJUN ENERG	Y RESEARCH FUND 2013		
Halldór Guðfinnur Svavarsson	Thermoelectric applications of silicon nanowires	Project grant	3.500
		Total:	3.500
INFRASTRUCTURE FUN	D 2013		
Jack James	Biobehavioural Studies of Stress	Equipment grant	6.352
		Total:	6.352
THE MINISTRY OF EDUC	ATION, SCIENCE AND CULTURE 2013		
Ásrún Matthíasdóttir	Technical education efficiency	Project grant	2.000
		Total:	2.000
		TOTAL:	256.655

### Appendix III – RU Annual Research Assessment

An evaluation of research activities of each individual academic employee at RU is conducted annually by international experts (<u>http://en.ru.is/research/about/ru-quality-assurance-system-in-research/</u>). The assessment was first conducted in 2007. The main objective of the assessment is to examine the quality of the research and research activity of all academic employees at RU with research duties. The RU Research Council is responsible for and in charge of the assessment in collaboration with RU Research Services and the process is operationally coordinated by RU Research Services. In consistency with its research strategy, RU uses the result of the RU Annual Research Assessment as a basis for allocation of research funds from the Ministry of Education, Science and Culture between the Schools.

### A: The Panel 2013

Professor Mogens Nielsen, University of Aarhus, Denmark, Computer Science Professor James Chalmers, University of Glasgow, UK, Law Professor Damijan Miklavcic, University of Ljubljana, Slovenia, Science and Engineering (Panel Chair)

Professor Peter Møllgaard, Copenhagen Business School, Denmark, Business

### B: The Score System 2013

The panel is asked to base their evaluation and hence their rating primarily on the quantity/quality of research output in peer-reviewed outlets.

The international panel grades each academic employee from 0 to 4 using the following scale:

- 0 None or insignificant research activity
- 1 Little but nontrivial research activity
- 2 Contributes to the research community but little impact
- 3 Considerable and active participant in the research community, with a clear contribution and impact
- 4 Significant and active participant in the research community, with a substantial contribution and impact

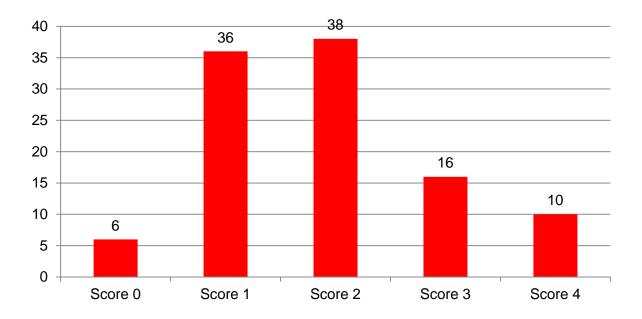
### C: The Assessment 2013

The panel is also asked to notice that all comparison to the international research community in each field and impact is witnessed by citations, derived work, advising of doctoral students/post-docs, grants and status (roles as editor, PC member/organizer of conferences, examiner of Ph.D. thesis, etc.).

Researchers that have received their PhD-degree within the last two years should be assigned the score 1 as the minimum - *Little but nontrivial research activity*.

### D: The results 2013

The figure below shows the number of academic employees at RU in each score group according to the assessment 2013.





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