

ΗU

Hungary

## JPI Observer, EU Member State

Total estimated Water RDI Funding: 1.9 M€/yr

The National Research, Development and Innovation Strategy (2013-2020), entitled 'Investment into the Future' was approved by the government in 2013. The strategy aims to raise the RD&I investments, and as a result, to mobilise the Hungarian economy and strengthen its competitiveness. The strategy set the target, amongst others, to raise the amount of research and development (R&D) expenditures to 1.8 % of the Gross Domestic Product (GDP) and increase the number of researchers from 37 000 in 2012 to 50 000 by 2020. The strategy focuses on three main fields: knowledge creation, knowledge transfer and knowledge utilisation. The National Research and Development and Innovation Strategy is accompanied by a two year Action Plan to contribute to its implementation.

Since July 2014, the Prime Minister's Office is responsible for science, research and innovation policies. A government commissioner has been appointed to manage the establishment of a new government office (National Office for Research, Development and Innovation), set up as from 01/01/2015, which will take over these responsibilities from the PMO.

The Hungarian Scientific Research Fund (OTKA) has been the major funding agency of basic science and scholarship since 1986. OTKA operates as an independent non-profit organisation since 1991. Its legal status and rules of operation have been designed to provide independent support to scientific research activities and infrastructure, to promote scientific achievements of international standards, and to provide assistance to young researchers. As an independent institution, OTKA reports to the parliament and the government of Hungary. With regards to the funds provided within the annual budget of the Republic of Hungary, the appropriations of OTKA are administered via the budget of the Hungarian Academy of Sciences, operating as Programme owner. During the two decades of its operation, OTKA has supported approximately fifteen thousand research projects with an overall funding worth 218 M€. OTKA's annual budget for 2008 was about 20 M€. It covers the annual financial support of around two thousand research projects (two to four years of duration each), with three hundred to four hundred new research projects starting every year. OTKA administers two rounds of open calls for proposals with a bottom-up approach towards research proposals, postdoctoral research proposals, and proposals for international cooperation every year. The agency operates without thematic restrictions and with a special emphasis on the careers of talented young researchers and on the reintegration of Hungarian researchers returning from postdoctoral trainings or research projects carried out abroad.

The <u>National Innovation Office</u> (NIH) is the research, development and innovation organization of the Hungarian Government. They provide professional support for private and government initiatives aiming to exploit and promote the market access of national R&D results. To this end they have created a team of analysts and information management experts. NIH supports national and international cooperation, and creates incentives for the formation of innovation networks. The National Innovation Office represents Hungary at the EU and at international organisations in issues relating to research and innovation. NIH does not have a specific programme for water, but has funded a number of projects on the topic. Additionally, the NIH president has identified Water Challenge as a major research priority, calling for integrated transnational cooperation on R&D for the Danube region.



Indicator <sup>1</sup>	SRIA theme	Publications		Patents		
		Hungary	Europe <sup>2</sup>	Hungary	Europe	
Raw data	QI	406	33531	0	59	
	Q2	390	37391	5	855	
	Q3	1620	134254	7	759	
	Q4	178	15957	I	184	
	Q5	264	22514	2	329	
	ALL	1729	142901	21	2256	
Increasing rate <sup>3</sup>		2.1	2.1	1.5	١.3	
Patens per 1,000		HU: 12.19 ; Europe: 15.78				
publications						
Standardized by	QI	41.1	53.7	0.0	0.0	
population <sup>4</sup> (10 <sup>6</sup> Inhabitants)	Q2	39.5	59.9	0.5	1.4	
	Q3	164.0	215.0	0.7	١.2	
	Q4	18.0	25.5	0.1	0.3	
	Q5	26.7	36.0	0.2	0.5	
	ALL	175.0	228.8	2.1	3.6	
Standardized by	QI	415.3	229.3	0.0	0.4	
GDP <sup>5</sup> (100 x 10 <sup>3</sup> M EUR)	Q2	398.9	255.7	5.3	5.8	
	Q3	1657.1	918.1	7.4	5.2	
	Q4	182.1	109.1	0.8	١.3	
	Q5	270.0	154.0	2.4	2.2	
	ALL	1768.6	977.2	21.6	15.4	

## Table with publications and patents data

<sup>&</sup>lt;sup>1</sup> All data correspond to the period 1999 - 2013. <sup>2</sup> Considered as the 28 EU Member States plus the 12 Associated Countries

<sup>&</sup>lt;sup>3</sup> Increasing Rate is the number of publications or patens in 2009-2013 divided by the number in 1999-2003 (considering ALL water topics).

<sup>&</sup>lt;sup>4</sup> Population obtained from http://en.wikipedia.org/wiki/List\_of\_countries\_by\_population.

<sup>&</sup>lt;sup>5</sup> Gross Domestic Product (GDP), nominal, obtained from http://en.wikipedia.org/wiki/List\_of\_countries\_by\_GDP\_%28nominal%29



## Tables on Funders and Performers obtained from publications analyses

SRIA theme	Funding Institutions	Acronym	Intensity of citations
QI	HUNGARIAN SCIENTIFIC RESEARCH FUND	ΟΤΚΑ	100
	HUNGARIAN NATIONAL INNOVATION OFFICE	HU-NIH	42
Q2	HUNGARIAN NATIONAL INNOVATION OFFICE	HU-NIH	100
	HUNGARIAN SCIENTIFIC RESEARCH FUND	ΟΤΚΑ	94
Q3	HUNGARIAN SCIENTIFIC RESEARCH FUND	ΟΤΚΑ	100
	HUNGARIAN ACADEMY OF SCIENCES	HU-MTA	23
Q4	HUNGARIAN NATIONAL INNOVATION OFFICE	HU-NIH	100
	HUNGARIAN SCIENTIFIC RESEARCH FUND	ΟΤΚΑ	29
Q5	HUNGARIAN NATIONAL INNOVATION OFFICE	HU-NIH	100
	HUNGARIAN SCIENTIFIC RESEARCH FUND	ΟΤΚΑ	57
ALL	HUNGARIAN SCIENTIFIC RESEARCH FUND	ΟΤΚΑ	100
	HUNGARIAN NATIONAL INNOVATION OFFICE	HU-NIH	49

SRIA theme	Performing Institutions	Intensity of citations
QI	HUNGARIAN ACADEMY OF SCIENCES	100
	EOTVOS LORAND UNIVERSITY	27
Q2	HUNGARIAN ACADEMY OF SCIENCES	100
	EOTVOS LORAND UNIVERSITY	66
Q3	HUNGARIAN ACADEMY OF SCIENCES	100
	EOTVOS LORAND UNIVERSITY	35
Q4	HUNGARIAN ACADEMY OF SCIENCES	100
	SZENT ISTVAN UNIVERSITY	85
Q5	HUNGARIAN ACADEMY OF SCIENCES	100
	SZENT ISTVAN UNIVERSITY	51
ALL	HUNGARIAN ACADEMY OF SCIENCES	100
	EOTVOS LORAND UNIVERSITY	35