## INSPIRING SCIENTIFIC EXCELLENCE AND COMPETITIVE INNOVATIONS THROUGH ELI

Zsolt Fülöp Envoy Extraordinary for the coordination of the ELI consortium National Research, Development and Innovation Office of Hungary

JASPERS Networking Platform – Second Extreme Light Infrastructure (ELI) pillars workshop, Brussels 11-12 September 2017

MOMENTUM OF INNOVATION





#### CLOSING THE CONSTRUCTION OF ELI-ALPS

By June 2017 we are just 'a few attoseconds' away from the takeover of the ELI-ALPS facility from the construction consortium. The key errors are already corrected by them, which were essential for the proper and safe use of the facility therefore we could sign the closing minutes of the technical takeover period. Now we are in the actual takeover process, which requires the preparation and signing

of lots of documentation, and the process of financial closing, and it looks like the first working day in the facility will be most probably 12 June 2017. In the meanwhile our occupancy permit process is on the way, and according to the expectations we will get the permit very soon after the takeover, which will allow us to move in and start operating the facility. There will be still quite a few, not that essential errors, which have to be fixed by the consortium after moving in, however our goal is to move in as soon as possible to be able to get prepared for receiving the research technology! When we are already in the facility we continue to work on the rest of the alterations (design and construction), which are essential for some of

the research technology arriving in

2018.





# New laser research facility in Szeged awaits researchers from all over the world

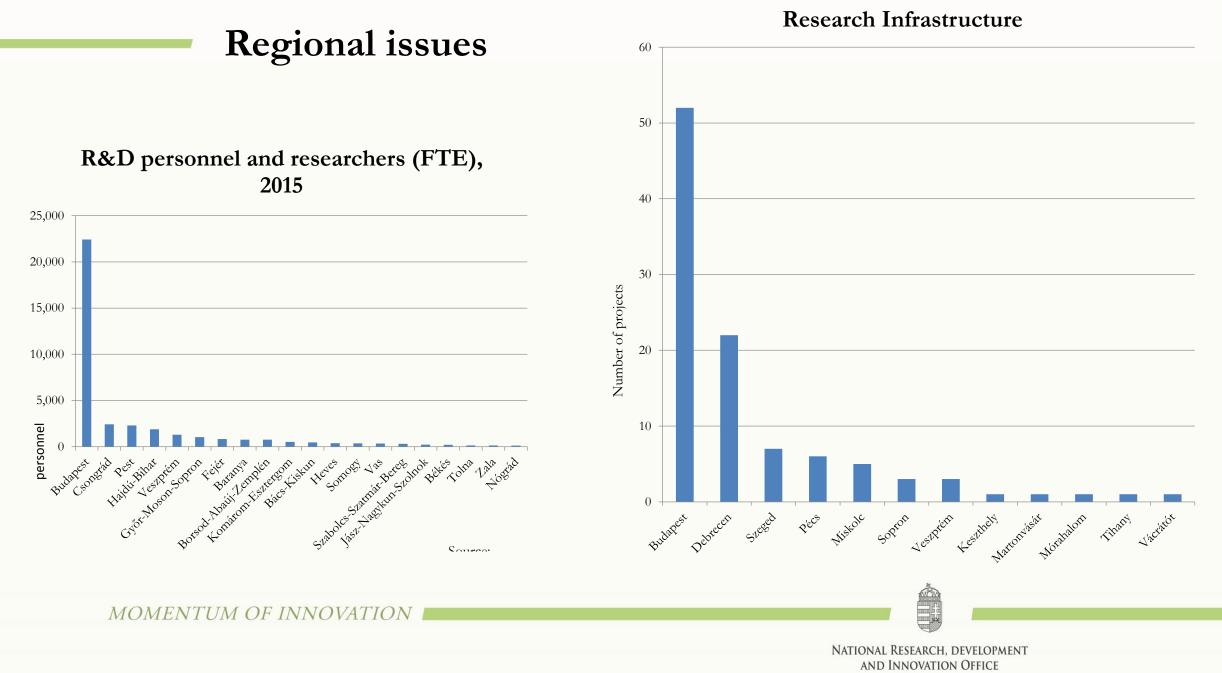
- The newly opened ELI laser facility is the most significant domestic project serving research purposes and funded from European Union (2014-2020)
  - As from 2016 the proprietary rights of the investment are owned by the National Research Development and Innovation Office
- Organising ELI European Research Infrastructure Consortium (ERIC)
  - After the establishment of the ELI-ERIC, consortium members will pay membership fees to cover the operating costs of the equipment
  - Intergovernmental negotiations in London, Paris, Beijing, Berlin, Madrid about the utilisation of the ELI
- Envoy Extraordinary and Minister Plenipotentiary for the coordination of the ELI consortium





attosecond

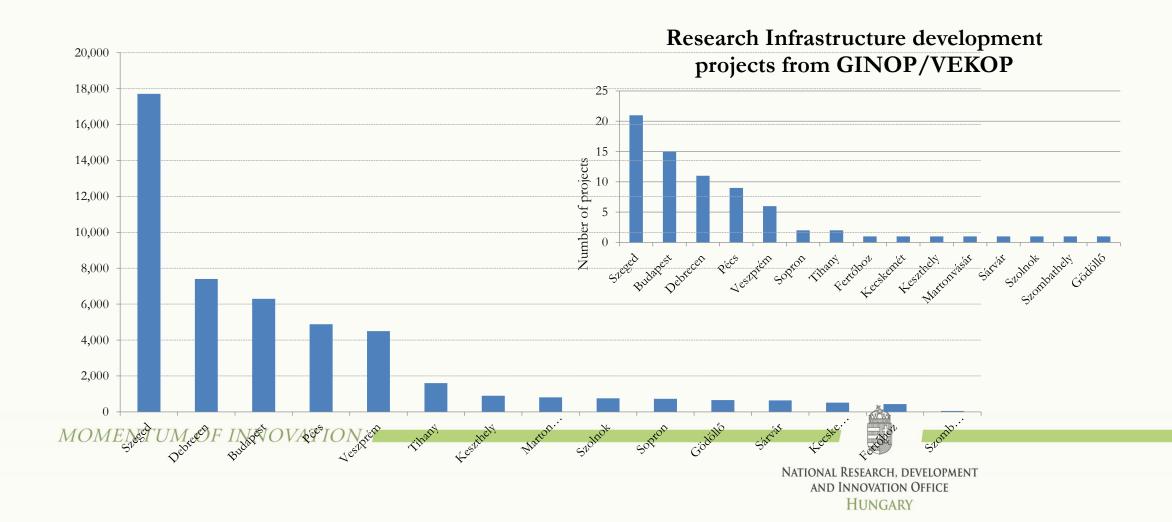




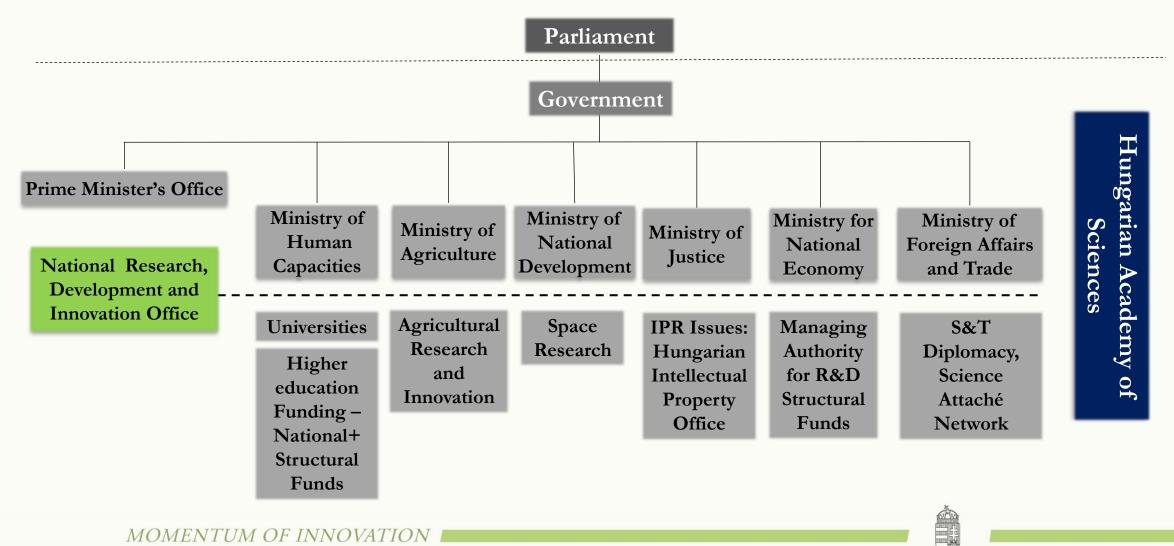
HUNGARY

#### **Upgrade from Structural Funds**

Spent on new infra projects without ELI



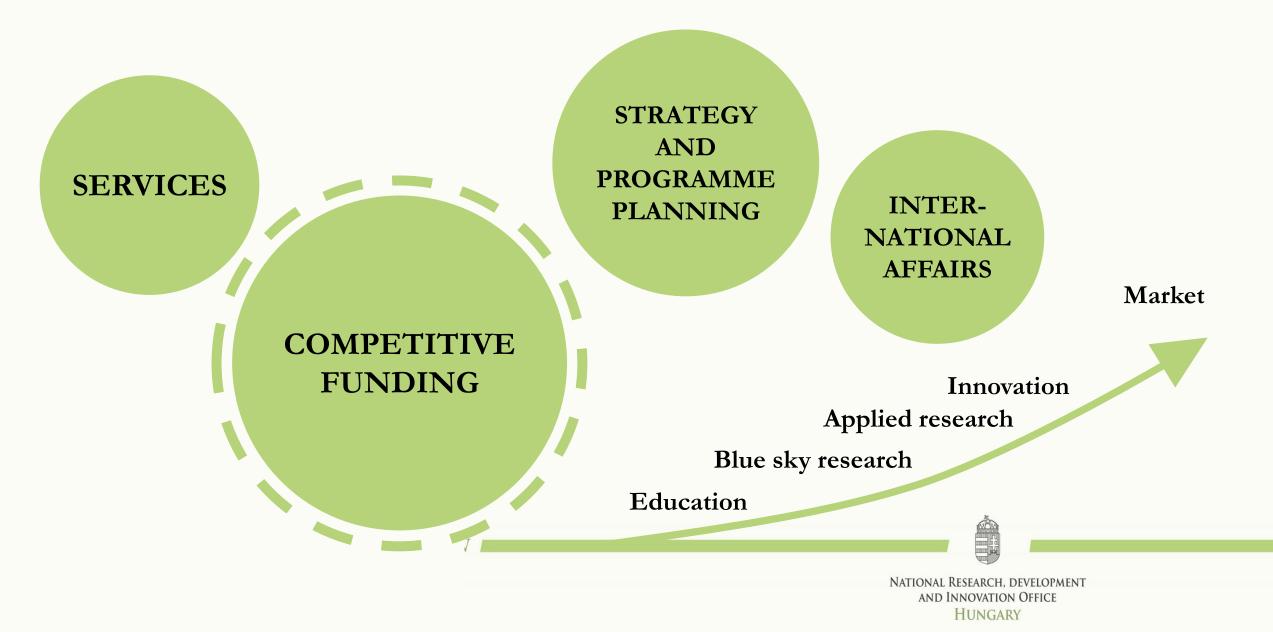
#### Governmental Structure of RDI in Hungary



MOMENTUM OF INNOVATION



#### NRDI Office – key actor for RDI in Hungary



#### National Research, Development and Innovation Office

INCREASING COMPETITIVENESS THROUGH EFFECTIVE PLANNING AND FUNDING OF R&D&I

Mission

STRATEGY PLANNING

FUNDING

REPRESENTING

A WORLD-CLASS RDI FUNDING AGENCY

CREATING INTERNATIONALLY ATTRACTIVE RDI ENVIRONMENT

LINKING RDI TO THE ECONOMY & SOCIETY FOR INCREASE GROWTH & PROSPERITY Transparency Integrity

EXCELLENCE

TRUST

Mandate

### Vision

Values

MOMENTUM OF INNOVATION

### Sources of R&D Funding in Hungary

Cohesion Policy Instruments

#### National Sources

National Research, Development and Innovation Fund Structural Funds

European Social Fund
 European Regional Development Fund

#### Operational Programmes

- Economic Development and Innovation
   Operational Programme (EDIOP)
- Competitiveness Central Hungary Operational Programme (CCHOP)

#### **International Funding**

Framework Programmes (FP7, Horizon2020)

MOMENTUM OF INNOVATION

### NRDI Office to support scientific excellence

	ER	ERC K		KKP_17		KH_17	
EXCELLENCE PROGRAMMES PROMOTING THE INTERNATIONAL COMPETITIVENESS OF DISCOVERY RESEARCH	promoting European Council progra BUD	Funding programmes promoting access to European Research Council (ERC) programmes BUDGET: HUF 0.45 BN		"Frontline" Research Excellence Programme BUDGET: HUF 3 BN		Funding of research groups whose outstanding achievements have a significant international impact on scientific forums with major visibility BUDGET: HUF 1 BN	
RESEARCHERS' THEMATIC APPLICATIONS PROGRAMMES, POSTDOCTORAL PROGRAMMES PROMOTING DISCOVERY RESEARCH	PD_17	FK_17		K <u>.</u>	_17		IN, SNN 17
	Postdoctoral excellence programme	Calls for thematic applications initiated by young researchers		Calls for thematic applications initiated by researchers		Calls for thematic applications based on international cooperation	
	BUDGET: HUF 1.5 BN			Contraction of the second s			dget: 6.5 bn
MOMENTUM OF INN	IOVATION						

# Excellence and collaboration: two winning Hungarian excellence centres in the H2020 Teaming action

- **Two projects** coordinated by the NRDI Office have been awarded EUR 26 million in a highly competitive EU funding scheme, out of **ten programmes selected across Europe**
- **Teaming action** of the Spreading Excellence and Widening Participation programme under Horizon 2020
  - domestic selection process: 3 out of 9 projects
  - two-step European selection process: 31 shortlisted out of  $169 \rightarrow 10$  winners
  - **EPIC** Production Informatics and Control
  - **CENN** Creating the Hungarian Centre of Excellence for Molecular Medicine
  - with additional domestic funding and contribution of participating institutions EUR 73 million is available for the two programmes
  - projects kick-off in April 2017

MOMENTUM OF INNOVATION

## NRDI Office to build international cooperation

Bilateral scientific and technological (S&T) cooperation

- Implementation of bilateral S&T agreements (S&T cooperation agreements with close to 40 countries);
- Coordination of joint S&T activities with the partner countries staff exchange, preparation and management of joint calls, organisation of joint scientific/networking events;
- ➤ Representation of the RDI policy area at the meetings of Joint Economic Committees;
- Coordination of the work of the S&T attachés in cooperation with the Ministry for Foreign Affairs and Trade and the Prime Minister's Office

Activities related to EU Membership

- Coordination of the EU's Horizon 2020 Programme at national level (hosting the network of National Contact Points), representation of Hungary in the Programme Committees of Horizon 2020; management of national calls supporting Hungarian participation in Horizon 2020;
- > Tasks related to EU membership participation in the EU's RDI legislation

Representation in multilateral RDI cooperations and programmes

- → Large international research infrastructures (CERN, ESS, XFEL, EMBL etc.),
- ➢ Multilateral intergovernmental cooperations (EUREKA, COST)
- Cooperation in RDI policy networks (OECD, TAFTIE)

## ELI as a flagship venture in Hungary

- Continuous monitoring from the innovation office
- High priority on the Hungarian scientific landscape (research and education)
- Importance of foreign users
- ERIC as a legal framework
- ELI Science Park is planned
- Ramp-up period is supported financially
- Long term support is limited

MOMENTUM OF INNOVATION

Year	2018	2019	2020	2021	2022
Host Members	50-90%	30-70%	20%	20%	20%
Non-Host Members	5-50%	30-70%	70-80%	80%	80%
EU (total expected: 15-20 M€ as one off)	5-25%	5-20%	0-10%	0	0
Income from competitive projects and commercial activities	0	0	1-3%	2-5%	3-7%



# The goal of research: creating a scientific innovation centre with European recognition



The goal of the complex development of **'ELI' Science Park Szeged** is to get leading businesses in R&D and innovation to settle in the European research infrastructure environment that embodies scientific excellence, and thus create a **scientific innovation centre with European significance** attached to the ELI research infrastructure.



#### Current status of the area





#### Works to be performed on the development area

State of the development	Comprehensive geodetic survey	<ul> <li>Contains the plot size of the buildings to be left standing, the plot ratio, the green area size, the useful footprint of the buildings to be erected, the parking spots to be built and the interior roads, community areas.</li> </ul>			
<ul> <li>area</li> <li>Since 1991, the plot ratio of the barracks didn't change</li> </ul>	Preparation of the development concept	<ul> <li>The basis of all further work and planning. It defines the amount of pavement demolition, height data, and the amount of earth-moving work.</li> </ul>			
<ul> <li>Because of its disuse, its state deteriorated continually</li> </ul>	Creation of an Interior road network - Interior public utility network concept	<ul> <li>Concept for the provision of roads and public utilities based on known or supposed needs, with capacity definitions.</li> </ul>			
<ul> <li>Obsolete, occasionally semi- demolished, fell down, crumbling buildings</li> </ul>	Building and pavement demolition	<ul> <li>Considering the Science Park functions, meaningful utilisation of the existing buildings and economic use of the area is not possible. Furthermore, pavement demolitions prepare the subsequent works.</li> </ul>			
<ul> <li>Significant area covered in concrete</li> </ul>	Scrub management, ammunition disposal	<ul> <li>Vegetation unkempt for 20 years makes scrub management necessary. The reason for ammunition disposal is the original purpose of the area. The basis of further archaeological excavations and construction work.</li> </ul>			
<ul><li>Other underground buildings</li><li>Unkempt vegetation</li></ul>	Spatial development-earth-moving work	<ul> <li>Ammunition disposal and surveying of the area is not possible without moving the significant amount of earth moved to the area a couple of years ago</li> </ul>			
	Preliminary archaeological impact assessment, pilot digging, performing the archaeological excavation	<ul> <li>Based in the Regulation plan, archaeological excavation is prescribed for part of the area. The size of the archaeological excavation area will be defined based on the results of the pilot digging</li> </ul>			

# THANK YOU FOR YOUR ATTENTION!

# www.nkfih.gov.hu/english



MOMENTUM OF INNOVATION





For info or further questions on this seminar and the activities of the JASPERS Networking Platform, please contact:

#### **JASPERS Networking and Competence Centre**

jaspersnetwork@eib.org

www.jaspersnetwork.org

