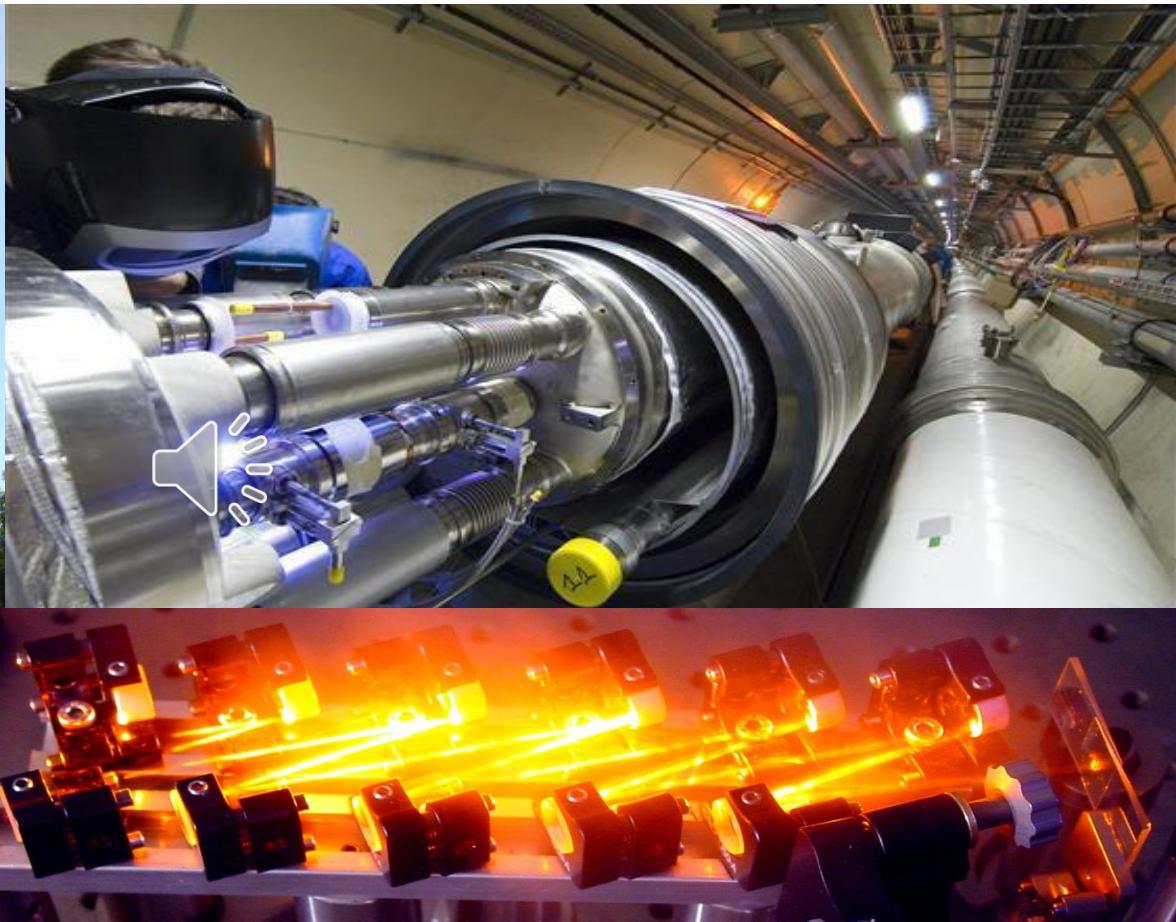


# ELI-ALPS, THE HUNGARIAN ELI PILLAR



János Mucsi, 18. October, 2013.

National Development Agency  
[www.ujszekenyiterv.gov.hu](http://www.ujszekenyiterv.gov.hu)  
06 40 638 638



HUNGARY'S RENEWAL



The projects are supported by the European Union  
and co-financed by the European Regional  
Development Fund.

# ELI-ALPS BASIC INFORMATION



SZÉCHENYI PLAN

January 2011 - the Government confirmed the implementation of  
the ELI-HU project

**Estimated  
total budget**

EUR 245 million

**Development  
Program**

New Széchenyi Plan 2011-2013

**Project owner  
and recipient**

ELI-HU Research and Development Non-Profit Ltd.



National Development Agency  
[www.ujszekenyiterv.gov.hu](http://www.ujszekenyiterv.gov.hu)  
06 40 638 638



HUNGARY'S RENEWAL



The projects are supported by the European Union  
and co-financed by the European Regional  
Development Fund.

### Preparation phases

#### Preparation Project phase I.

- Total budget 992 million HUF (cc. 3.3 M EUR)
- Non-refundable grant from GOP 1. priority
- EU funding: 85%
- Grant contract was signed on April 13, 2011

#### Preparation Project phase II.

- Total budget 2.818 billion HUF (cc. 9.6 M EUR)
- Non-refundable grant from GOP 1. priority
- EU funding: 85%
- Grant contract was signed on January 26, 2012

# MAJOR PROJECT



## Implementation phase

**Major project**

- Planned maximum budget 59.8 billion HUF (cc. 200 M EUR)
- Non-refundable grant from GOP 1. priority
- EU funding: 85%
- Grant contract was signed on August 28, 2013



National Development Agency  
[www.ujszekenyiterv.gov.hu](http://www.ujszekenyiterv.gov.hu)  
06 40 638 638



HUNGARY'S RENEWAL



The projects are supported by the European Union  
and co-financed by the European Regional  
Development Fund.

The Szeged location offers lots of advantages for the facility



# **NEW SZÉCHENYI PLAN**

## The Szeged site

- Szeged, Dél-Alföldi Régió (South Great Plain Region)
  - Site owned by the state and managed by the University of Szeged
  - Brownfield site of 100 / 10 ha
  - Near the city center
  - Excellent access to pan-European highway M5
  - Proximity of Romanian and Serbian border



National Development Agency  
[www.ujszchenyiterv.gov.hu](http://www.ujszchenyiterv.gov.hu)  
06 40 638 638



## HUNGARY'S RENEWAL



The projects are supported by the European Union and co-financed by the European Regional Development Fund.

# LOCATION OF ELI-ALPS



SZÉCHENYI PLAN



National Development Agency  
[www.ujszekenyiterv.gov.hu](http://www.ujszekenyiterv.gov.hu)  
06 40 638 638



HUNGARY'S RENEWAL



The projects are supported by the European Union  
and co-financed by the European Regional  
Development Fund.

# LOCATION OF ELI-ALPS

NEW SZÉCHENYI PLAN

ELI-ALPS

Planned  
Science park



National Development Agency  
[www.ujszekenyi.gov.hu](http://www.ujszekenyi.gov.hu)  
06 40 638 638



HUNGARY'S RENEWAL



The projects are supported by the European Union  
and co-financed by the European Regional  
Development Fund.

# IMPLEMENTATION 1



## Procedure: Public procurement (almost done!)

### GENERAL CONTRACTOR – Consider Hungarian law!!!

- Open tender, cc. 80 M EUR
  - preliminary quality control to Intermediary Body – 2.5-3 months
  - Bidding period – 45 days
  - Evaluation of bids – 60 days (can be extended once if needed)
  - Result (summary) – right after evaluating the bids
  - Signing the contract – 15 days after the result
- 
- <http://www.kozbeszerzes.hu/jogi-hatter/hazai-szabalyozas/>



National Development Agency  
www.ujszekenyiterv.gov.hu  
06 40 638 638



HUNGARY'S RENEWAL



The projects are supported by the European Union  
and co-financed by the European Regional  
Development Fund.

# IMPLEMENTATION 2



SZÉCHENYI PLAN

## Procedure: Public procurement

### SCIENTIFIC TECHNOLOGY AND EQUIPMENT – Consider Hungarian law!!!

- Tender with negotiations – 2 phases (financial pre-qualification and actual bidding phase)
- cc. 50 M EUR – possible negotiations on technical parameters and contractual conditions
- Preliminary quality control to Intermediary Body – 2.5-3 months
- Prequalification phase – minimum 30 days
- Evaluating prequalification – maximum 30 days (can be extended once)
- Result (summary of prequalification) – right after evaluating prequalification
- Asking for bids and bidding period – cc. 20 days
- Negotiations – cc. 30 days
- Result (summary) – within 30 days after last negotiation
- Signing the contract – 15 days after the result

• <http://www.kozbeszerzes.hu/jogi-hatter/hazai-szabalyozas/>



National Development Agency  
www.ujszchenyiterv.gov.hu  
06 40 638 638



HUNGARY'S RENEWAL



The projects are supported by the European Union  
and co-financed by the European Regional  
Development Fund.

# IMPLEMENTATION 3



## Procedure: R+D contracts (no public procurement)

### SCIENTIFIC TECHNOLOGY 2.

- cc. 40 M EUR – possible negotiations on technical parameters and contractual conditions
  - Preliminary quality control to Intermediary Body – 1.5-2 months
  - Prequalification phase – minimum 30 days
  - Evaluating prequalification – maximum 30 days (results)
  - Asking for bids and bidding period – cc. 20 days
  - Result (summary) – within 30 days after last bidding period
  - Signing the contract – 5 days after the result
- 
- <http://www.kozbeszerzes.hu/jogi-hatter/hazai-szabalyozas/>



National Development Agency  
www.ujszekenyiterv.gov.hu  
06 40 638 638



HUNGARY'S RENEWAL



The projects are supported by the European Union  
and co-financed by the European Regional  
Development Fund.

# PUBLIC PROCUREMENTS



- General contractor – June 27. 2013, expected contract end of 2013.
- Supervising engineers – expected contract November 2013.
- Architect/Designer control – contract: September 2013.
- Additional design – expected contract November 2013.
- Design controller for additional design – expected contract Q4 2013.
- 3D virtual controlling – expected contract end of 2013.



National Development Agency  
[www.ujszchenyiterv.gov.hu](http://www.ujszchenyiterv.gov.hu)  
06 40 638 638



HUNGARY'S RENEWAL

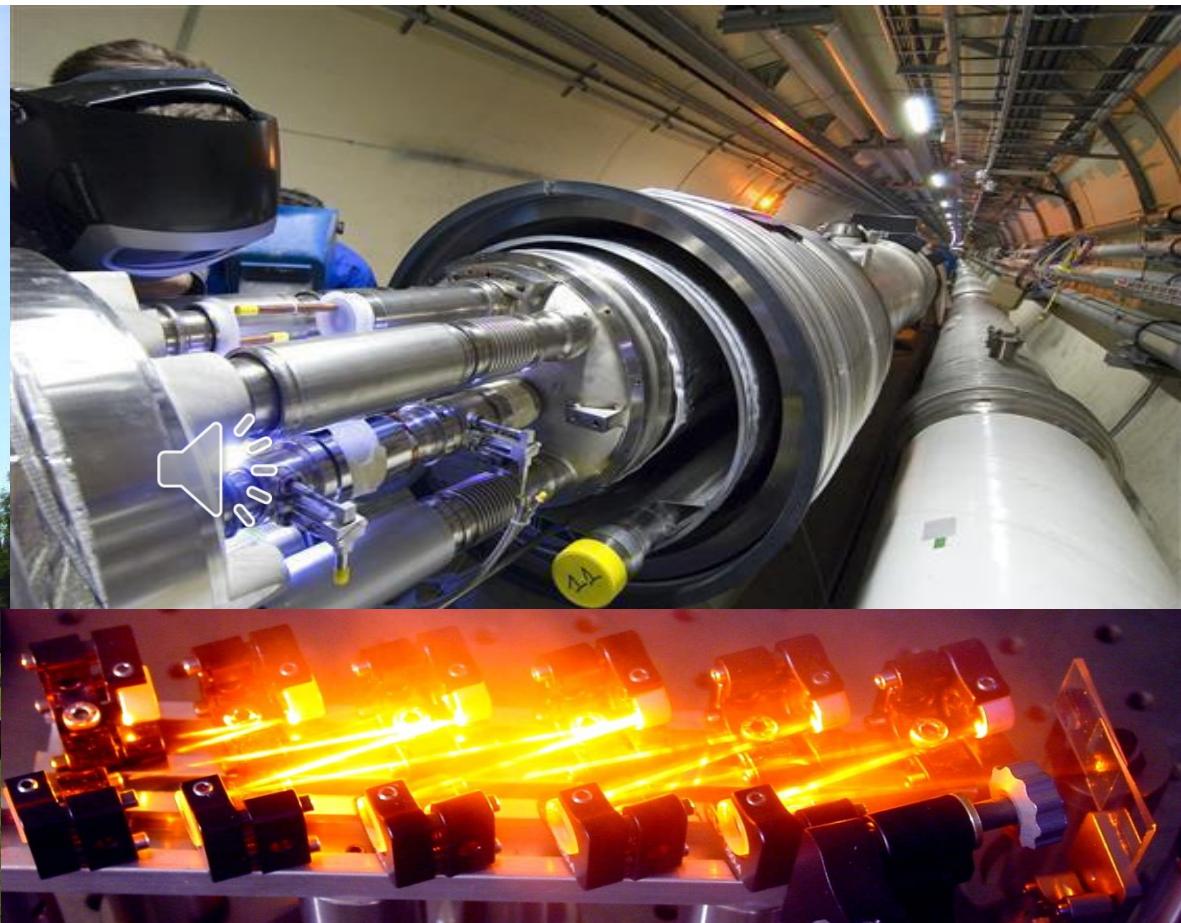


The projects are supported by the European Union  
and co-financed by the European Regional  
Development Fund.

# ELI-ALPS PROJECT TECHNICAL PREPARATORY STEPS

NEW

SZÉCHENYI PLAN



János Mucsi, 18. October, 2013.

National Development Agency  
[www.ujszchenyiterv.gov.hu](http://www.ujszchenyiterv.gov.hu)  
06 40 638 638



HUNGARY'S RENEWAL



The projects are supported by the European Union  
and co-financed by the European Regional  
Development Fund.

# LOCATION OF ELI-ALPS

NEW SZÉCHENYI PLAN

ELI-ALPS

Planned  
Science park



National Development Agency  
[www.ujszekenyi.gov.hu](http://www.ujszekenyi.gov.hu)  
06 40 638 638



HUNGARY'S RENEWAL



The projects are supported by the European Union  
and co-financed by the European Regional  
Development Fund.

# PHYSICAL PREPARATION OF CONSTRUCTION



- Ammunition removal
- Shrub-tree removal
- Concrete removal (more than 5 000 m<sup>3</sup>)



National Development Agency  
[www.ujszchenyiterv.gov.hu](http://www.ujszchenyiterv.gov.hu)  
06 40 638 638



HUNGARY'S RENEWAL



The projects are supported by the European Union  
and co-financed by the European Regional  
Development Fund.

# PHYSICAL PREPARATION OF CONSTRUCTION



## Ammunition, shrub removal



National Development Agency  
[www.ujszekenyiterv.gov.hu](http://www.ujszekenyiterv.gov.hu)  
06 40 638 638



HUNGARY'S RENEWAL



The projects are supported by the European Union  
and co-financed by the European Regional  
Development Fund.

# PHYSICAL PREPARATION OF CONSTRUCTION



## Concrete removal



National Development Agency  
[www.ujszekenyiterv.gov.hu](http://www.ujszekenyiterv.gov.hu)  
06 40 638 638



HUNGARY'S RENEWAL



The projects are supported by the European Union  
and co-financed by the European Regional  
Development Fund.

# PREPARATION OF CONSTRUCTION



SZÉCHENYI PLAN

- Building permit – December 20. 2012.
- Road building permit – December 18. 2012.
- Water supply, sewage and drain water permits – July 19. 2013.
- PEIA (preliminary environmental impact assessment): August 24. 2012.
- Public procurement for general contractor – June 27. 2013.
- Expected launch of construction works – end of 2013.



National Development Agency  
[www.ujszekenyiterv.gov.hu](http://www.ujszekenyiterv.gov.hu)  
06 40 638 638



HUNGARY'S RENEWAL



The projects are supported by the European Union  
and co-financed by the European Regional  
Development Fund.

# INTERNATIONAL ACTIVITIES



Several study tours and site visits to laser centers

Rutherford Appleton Laboratory

Max-Born-Institut

Max-Planck-Institut

Laser Megajoule, CEA

APOLLON

CLPU, Salamanca

LLNL (NIF), LBNL (BELLA)

Scientific Advisory Committee (SAC) was established

Conferences, forums

ELI-ALPS kick-off conference, press conferences

ELI-DC kick-off meeting

LEI conference

Local publicity forums, partnership forum



National Development Agency  
[www.ujszchenyiterv.gov.hu](http://www.ujszchenyiterv.gov.hu)  
06 40 638 638



The projects are supported by the European Union  
and co-financed by the European Regional  
Development Fund.

# ARTISTIC VIEW 1.

NEW SZÉCHENYI PLAN



National Development Agency  
[www.ujszchenyiterv.gov.hu](http://www.ujszchenyiterv.gov.hu)  
06 40 638 638



HUNGARY'S RENEWAL



The projects are supported by the European Union  
and co-financed by the European Regional  
Development Fund.

# ARTISTIC VIEW 2.



National Development Agency  
[www.ujszchenyi.gov.hu](http://www.ujszchenyi.gov.hu)  
06 40 638 638



HUNGARY'S RENEWAL



The projects are supported by the European Union  
and co-financed by the European Regional  
Development Fund.

# ARTISTIC VIEW 3.

NEW SZÉCHENYI PLAN



National Development Agency  
[www.ujszekenyterv.gov.hu](http://www.ujszekenyterv.gov.hu)  
06 40 638 638



HUNGARY'S RENEWAL



The projects are supported by the European Union  
and co-financed by the European Regional  
Development Fund.

# SITE MAP

# NEW SZÉCHENYI PLAN

## **Building „A”**

(lasers + target areas):

**Net area - 6209 m<sup>2</sup>**

# Building „B”

(scientific labs and machinery):

Net area - 7936 m<sup>2</sup>

## Building „C”

(Reception, auditorium):

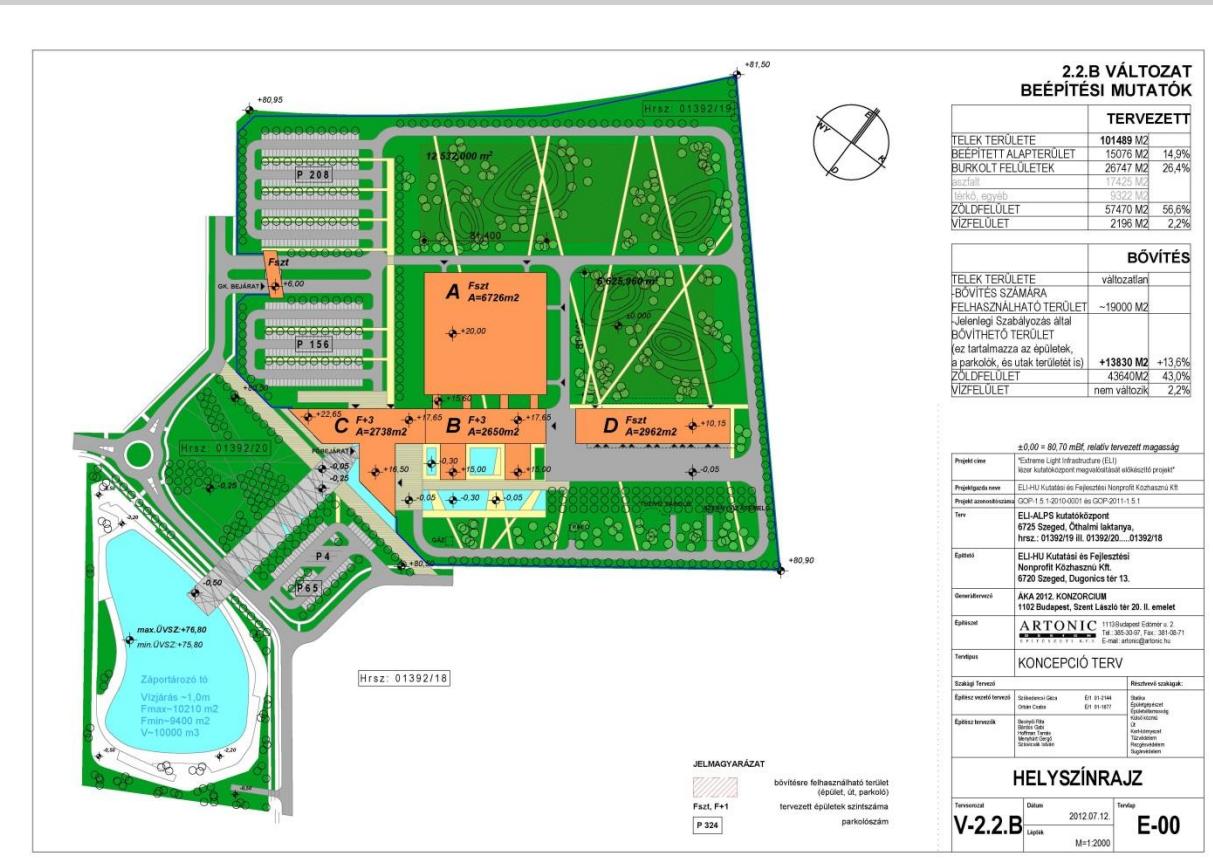
Net area - 7391 m<sup>2</sup>

**Building „D”**

(maintenance, storage):

Net area - 2926 m<sup>2</sup>

Total – 24 462 m<sup>2</sup>



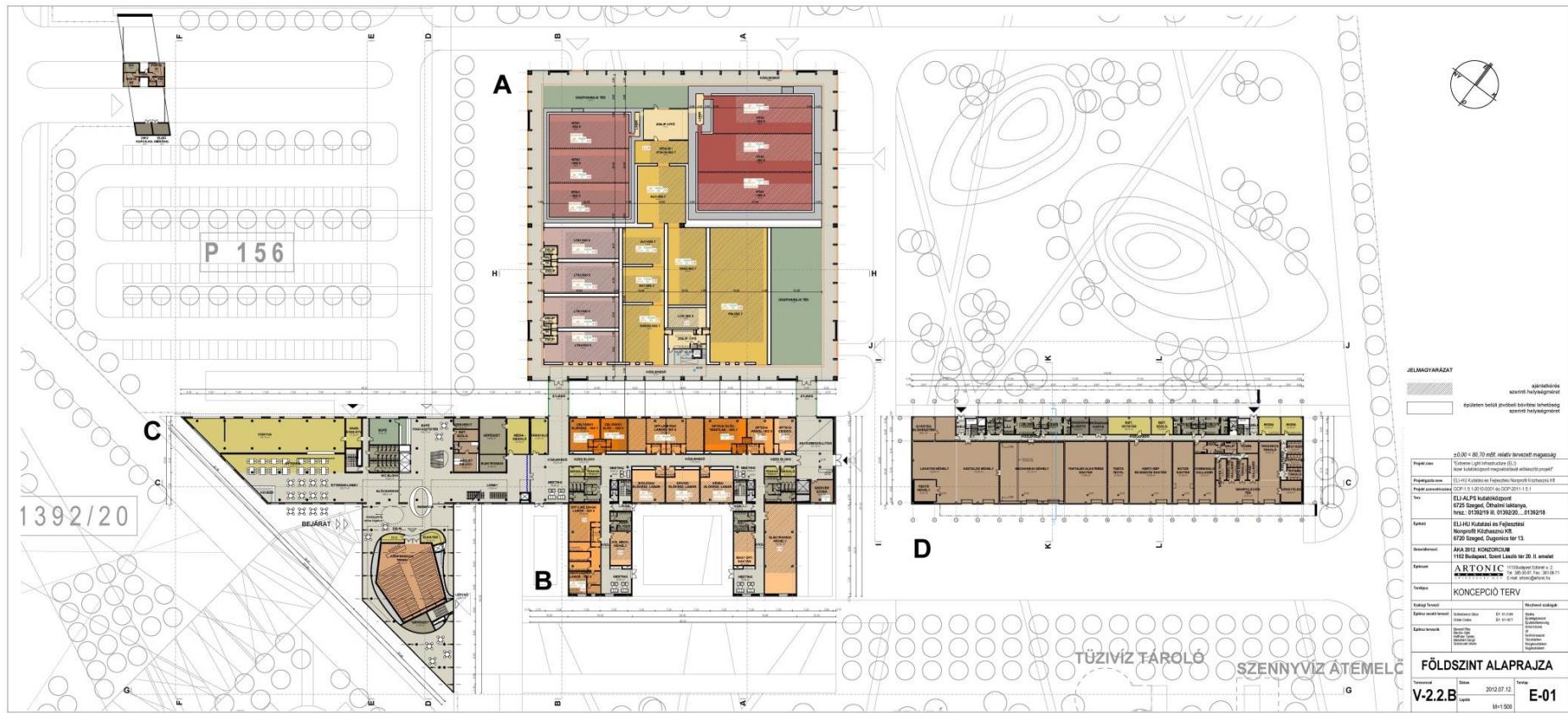
National Development Agency  
[www.ujeszchenyiterv.gov.hu](http://www.ujeszchenyiterv.gov.hu)



The projects are supported by the European Union and co-financed by the European Regional Development Fund.

# LAYOUT – GROUND FLOOR

# NEW SZÉCHENYI PLAN



National Development Agency  
[www.ujeszchenyiterv.gov.hu](http://www.ujeszchenyiterv.gov.hu)  
**06 40 638 638**



The projects are supported by the European Union and co-financed by the European Regional Development Fund.



# CROSS SECTION

# NEW SZÉCHENYI PLAN



<b>Projekt címe:</b>	<b>00-00-00-00-00 műút fejlesztés magasig</b>		
<b>Tervező:</b>	<b>Egyesületi légiós műszaki tervezői csoport</b>		
<b>Projektvezető:</b>	<b>ELHU Kft.</b>		
<b>Projekt elérhetősége:</b>	<b>Hegyeshalom 10. szám 4000 Hegyeshalom</b>		
<b>Tervezési időszak:</b>	<b>2015.01.01 - 2016.01.01 (ID: 20111-1.5)</b>		
<b>Tervezési részletek:</b>	<b>ELHU Kft. katalógus http://www.elhu.hu tel: 01/96919-0000, 01/360-01200/18</b>		
<b>Elérhetőség:</b>	<b>ELHU Kft. Kufalvi és Feljetessy utca 10. 1100 Budapest, Magyarország 6700 Szeged, Dógorics ter 13.</b>		
<b>Dokumentumok:</b>	<b>AKA 2012. KONZOLCÍM 1101 Budapest; Szent László tér 20. 5. emel.</b>		
<b>Egységesített:</b>	<b>ARTONIK 1101 Budapest; Szent László tér 20. 5. emel. E-mail: info@artonik.hu Telefonszám: +36 30 00 30 000</b>		
<b>Vagyban:</b>	<b>KONCEPCIÓ TERV</b>		
<b>Szolgáltató:</b>	<b>Stadion Kft. Szentendrei út 10. 1101 Budapest</b>		
<b>Egységesített:</b>	<b>Stadion Kft. Szentendrei út 10. 1101 Budapest</b>		
<b>Egységesített:</b>	<b>Stadion Kft. Szentendrei út 10. 1101 Budapest</b>		
<b>METSZET-HOMLOKZAT</b>			
<b>Tervezőid:</b>	<b>László</b>	<b>2012.01.12</b>	<b>Terjed.</b>
<b>V-2.2.B</b>	<b>László</b>	<b>Nr. 1500</b>	<b>E-06</b>



National Development Agency  
[www.ujeszchenyiterv.gov.hu](http://www.ujeszchenyiterv.gov.hu)  
**06 40 638 638**



The projects are supported by the European Union and co-financed by the European Regional Development Fund.



# 3D MODEL OF THE TECHNOLOGY BUILDING



SZÉCHENYI PLAN



National Development Agency  
[www.ujszekenyiterv.gov.hu](http://www.ujszekenyiterv.gov.hu)  
06 40 638 638

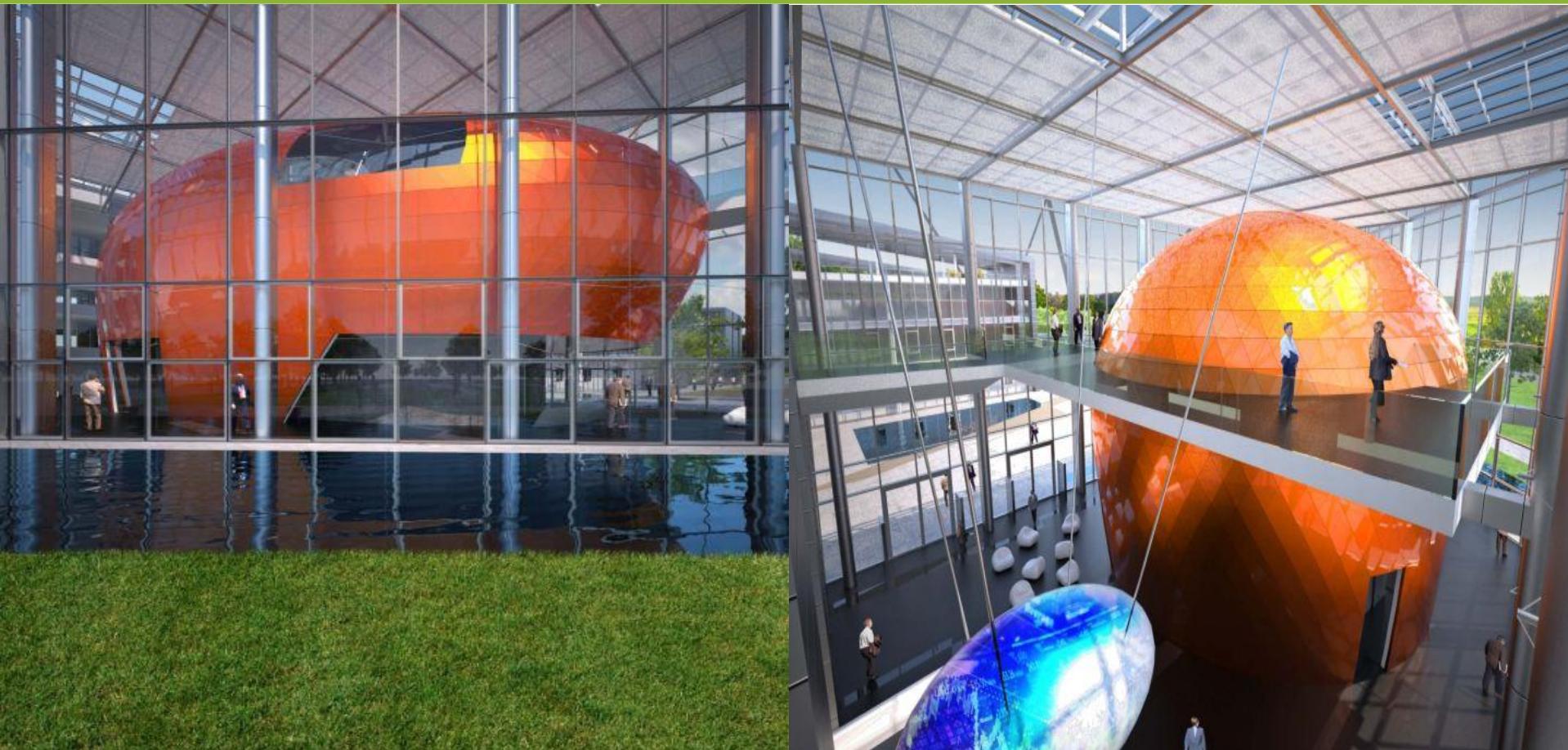


HUNGARY'S RENEWAL



The projects are supported by the European Union  
and co-financed by the European Regional  
Development Fund.

# THE AUDITORIUM – THE „BRAIN”



National Development Agency  
[www.ujszekenyiterv.gov.hu](http://www.ujszekenyiterv.gov.hu)  
06 40 638 638



HUNGARY'S RENEWAL



The projects are supported by the European Union  
and co-financed by the European Regional  
Development Fund.

# INTERNAL DESIGN

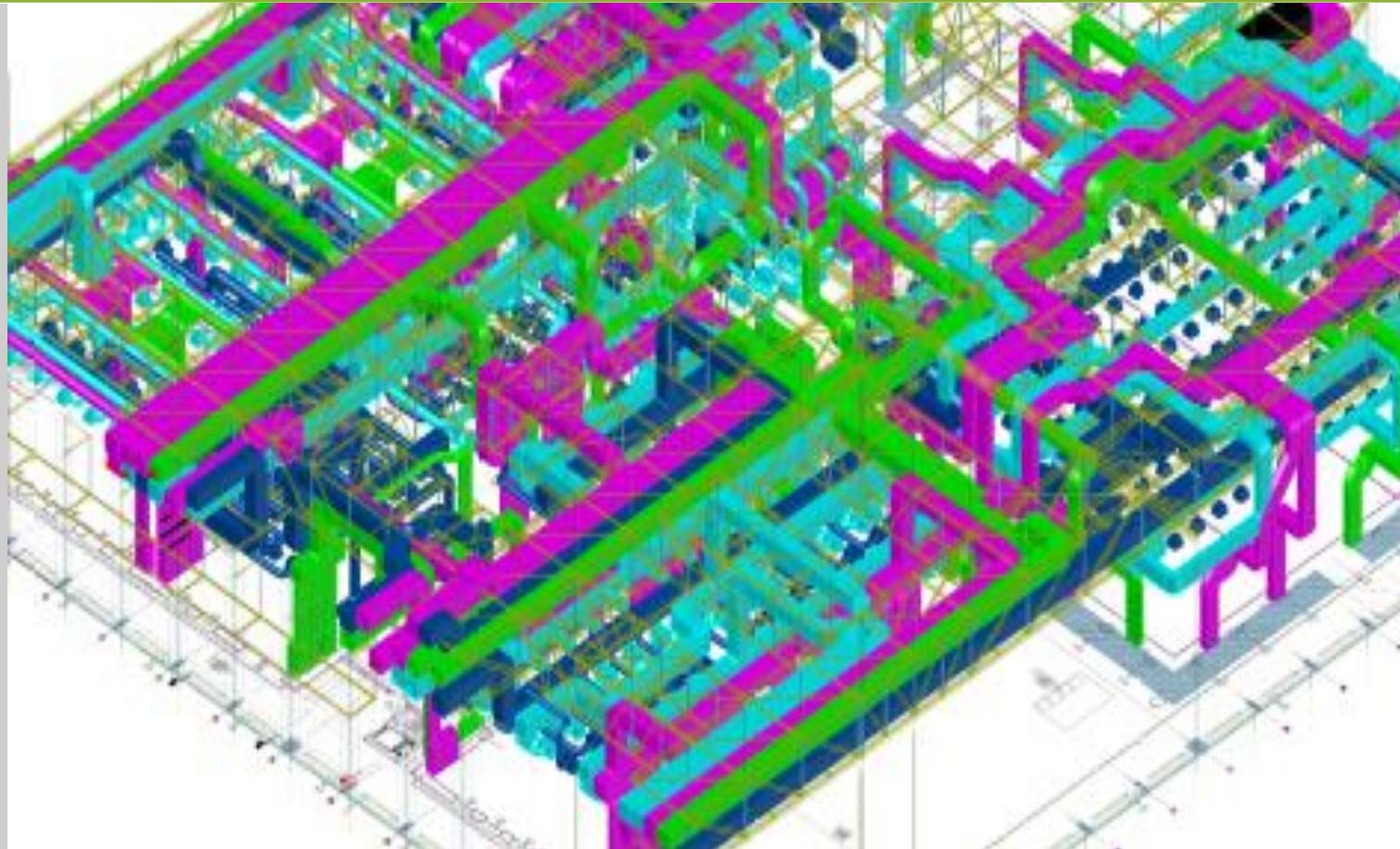


VISITOR CENTER



LIBRARY

# PIPES OF THE LASER BUILDING



National Development Agency  
[www.ujszekenytterv.gov.hu](http://www.ujszekenytterv.gov.hu)  
06 40 638 638



HUNGARY'S RENEWAL



The projects are supported by the European Union  
and co-financed by the European Regional  
Development Fund.

# SPECIAL BUILDING STRUCTURES



SZÉCHENYI PLAN

- Requirement for special foundation: altogether 823 piles (adds up to 14.4 km!), deepest piles - 45 m
- Removing 133 000 m<sup>3</sup> soil
- providing 5,500 m<sup>2</sup> vibration-free base within the laser building using special cork and spring technology
- 8,000 m<sup>2</sup> of clean room (ISO 7, ISO8)
- 0.5 °C temperature discrepancy within clean rooms



National Development Agency  
[www.ujszekenyiterv.gov.hu](http://www.ujszekenyiterv.gov.hu)  
06 40 638 638



HUNGARY'S RENEWAL



The projects are supported by the European Union  
and co-financed by the European Regional  
Development Fund.

# Thank you for your attention!



ÁKA KONZORCIUM



National Development Agency  
[www.ujszchenyiterv.gov.hu](http://www.ujszchenyiterv.gov.hu)  
06 40 638 638



HUNGARY'S RENEWAL



The projects are supported by the European Union  
and co-financed by the European Regional  
Development Fund.