



HORIZON
2020



Centre for functional and surface- functional glasses (FunGlass)

Horizon 2020 programme
Call WIDESPREAD 1-2014: Teaming

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Project objective



Upgrade of the existing **Centre of excellence for ceramics, glass and cement in Trenčín, Slovakia, (CEKSiM)** to an internationally recognized **Centre for functional and surface-functionalized glasses.**

Specialization:

- ✓ cutting edge research of glasses with special functional properties (luminescence, electric, sorption),
- ✓ surface functionalization of conventional glasses, modification of their properties, adding new functionalities.

Applications



Surface functionalization

- **Energy efficient buildings:**
 - ✓ Reflection, and anti-reflection coatings of glass panels
 - ✓ High strength construction elements
- **Automotive:**
 - ✓ hydrophylic/hydrophobic/self-cleaning glasses
- **Health care:**
 - ✓ Antibacterials/self-cleaning coatings (MRSA)
 - ✓ Bioglass for personalized health care
 - ✓ Controlled delivery and release of drugs
- **Energy:**
 - ✓ Production (PV)
 - ✓ Saving (energy efficient lighting)



**Intensive and coordinated
research activities needed**

Partners



Leading institutions of glass research in Europe:

- ✓ Universität Erlangen-Nuernberg, Germany
- ✓ Otto-Schott Institut, Universität Jena, Germany
- ✓ Instituto de Ceramica y Vidrio, Madrid, Spain
- ✓ Università degli Studi Padua, Italy

Leading scientists in the field

	Citations	H-index
Prof. A.R. Boccaccini	10322	54
Prof. L. Wondraczek	1017	21
Prof. A. Durán	4697	36
Prof. E. Bernardo	2399	32

MEANS TO ACHIEVE THE OBJECTIVES



CSA – Phase I – start 06/2015

Preparation of business plan

Start + 12 months

Preparation of project, Phase II

Start + 13 months

Preparation of the project for infrastructure building supported by EU structural funds

Start + 13 months

FPA – Phase II – expected start 01/2017

Establishment of the Centre and its structures

Start + 18 months

Management system for advanced research facilities

Start + 18 months

Student and researcher exchange programs

Start + 18 months

Building of the premises, procurement of research infrastructure

Start + 36 months

Hiring of research and administration staff

Start + 36 months

Completion of training of the research staff

Start + 48 months

International graduate school issuing joint diplomas

Start + 72 months

Achievement of financial self-sufficiency

End + 36 months



Personal policy

- **Creation of 20-25 new workplaces for:**
 - ✓ skilled and qualified research personnel
 - ✓ auxiliary and administration staff
- **Ensuring excellent quality of the personnel:**
 - ✓ creation of mechanisms and financial conditions for hiring high quality research personal from abroad,
 - ✓ intensive training through student and researcher exchange programs
 - ✓ access to research facilities of the partners
 - ✓ interim training sessions of Slovak specialists on advanced research facilities of the partners.



Financial support

➤ Infrastructure

- ✓ Forthcoming call of OP Research and Innovations aimed at infrastructure building for Teaming (Phase I) successful teams/ 8 - 10 M€

➤ Personal and training

- ✓ Phase II – Teaming Call/ 15 M€

➤ Time horizon

- ✓ Until 2023



Thanks for support to

- **Assosiation of Glass Industry of the Slovak Republic**
- **Slovak Glass Society**
- **Johns Manville**
- **RONA**
- **Vetropack**