

# Project: Strengthening Ukraine and EU research cooperation in the field of Material Sciences

- **Acronym : SUCCESS**

*Coordinator : Institute for Scintillation Materials  
NAS of Ukraine, Kharkov*

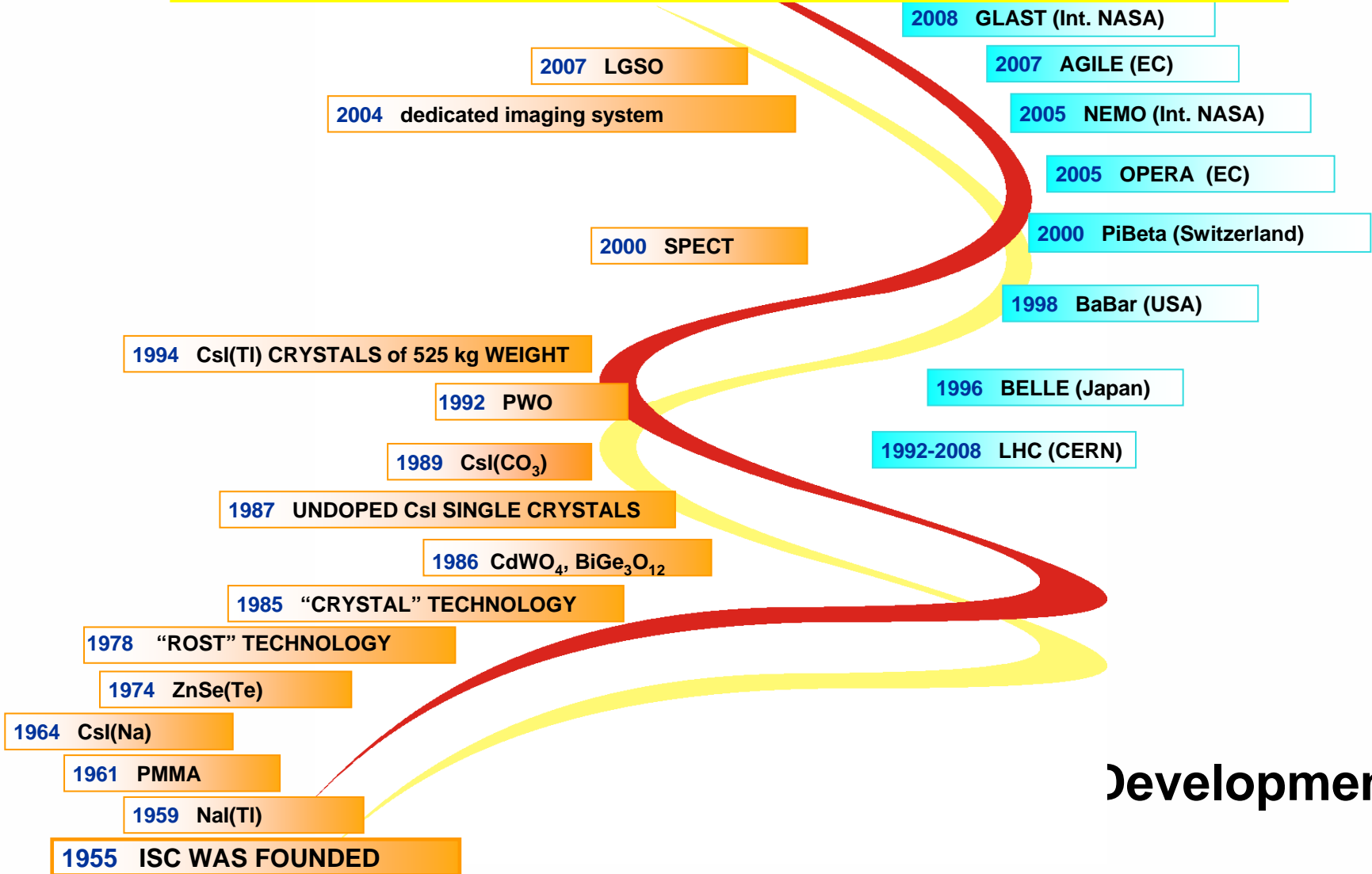
## MAIN ACTIVITIES :

- ✓ **Analysis**: strategy of the cooperation between ISMA and EC scientific and R&D centers on the base on SWOT analysis.
- ✓ **Twinning activity**: scientific cooperation of ISMA and UCBL (mutual scientific projects, European workshops and conference management, scientists exchange, access to European scientific facilities
- ✓ **International cooperation**: scientific&development promotion, use of European “technology platform” and European scientific facilities integration to EC programs in favor of later FP7 progress.
- ✓ **Education and training activity**: students and PhD study, general educational activity, cooperation with EC universities

## The ERA-WIDE activities covered by the call are:

- ✓ **Networking with research centers in Member States or Associated Countries in view of disseminating scientific information, identifying partners and setting up joint experiments;**
- ✓ **Developing training modules to build competency and facilitate the participation in FP7 of the centers located in the targeted third countries;**
- ✓ **Developing the research centers' strategy in order to increase their scope (regional coverage, activities) and to improve their responses to the socio-economic needs of their countries and of the region.**

**2010... – New scintillators ?** **TAHCAL ?**



**Developments**

## Scientific and business links as back ground to success:

- \* scientific level at the field of expertise
- \* International recognition and good references
- \* Experience with other submissions

### ISMA. International projects:

LHC (CERN, Switzerland), BELLE (KEK, Japan), BaBar (SLAC, USA), PiBeta (PSI, Switzerland), neutrino search (OPERA), NEMA (France), astrophysics GLAST (international NASA mission), AGILE (EC) etc.

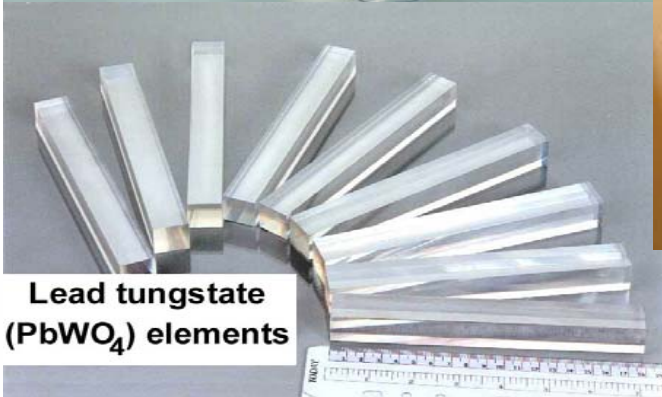
### ISMA. Engineering and business links:

Siemens, GE, Philips Medical Systems – medical imaging, ORNL (USA), Smith Heimann (Germany) – security etc.



## Inorganic scintillators

Cadmium tungstate  
( $\text{CdWO}_4$ )

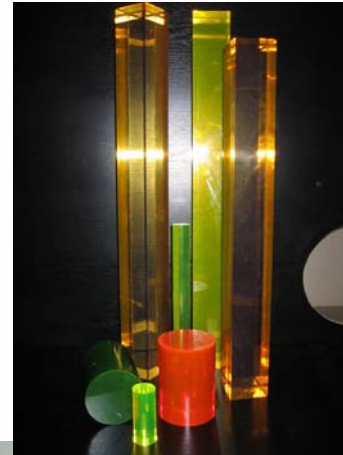


Lead tungstate  
( $\text{PbWO}_4$ ) elements



**Full chain from the raw material synthesis to crystal and detector**

# Organic scintillators, plastics, Liquid scintillators etc.





# ISMA for International Collaborations

## High Energy and Nuclear Physics



CMS

PANDA

NEMO

OPERA

## Medium Energy Physics

BELLE (Japan)



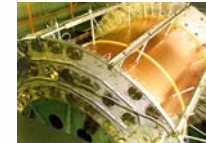
BaBar (USA)



PiBeta (Switzerland)



KEDR



## Space Missions



GLAST (USA, Sweden...)



FAIR ?



AGILE (Italy)



## Detectors and Systems Engineering:

- Environmental
- Security
- Medical imaging
- Industrial

