

InnovaBalt project and synergies to the EU fund policies

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Strategic objectives of the project

- Contribution to the research, technology and innovation **capacity building in Baltic region**
- Strong integration in ERA: through long-lasting **partnership** with selected European research centers
- Improved participation in FP **Horizon 2020** and other European research program activities
- <http://innovabalt.eu/>



- Project acronym: **InnovaBalt**
- Type of funding scheme: **Coordination and support actions**
- Work programme topics addressed: **REGPOT-2012-2013-1**
- Total cost: **5.2 million euro**
- Contribution of EC: **4.7 million euro**

Strategic partnering organizations

Centre de RMN à Très Hauts Champs, Ecole Normale Supérieure de Lyon	France
Institute of Biotechnology, Vilnius University	Lithuania
Tartu University	Estonia
University of Antwerp, Antwerp Drug Discovery Network	Belgium
RWTH Aachen University	Germany
Uppsala University	Sweden
Aalto University	Finland
University of Florence	Italy
Leiden University	The Netherlands
Eurice Ltd	Germany
University of Zurich	Switzerland

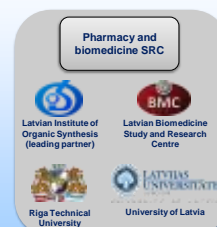
Public funding sources in IOS



ERDF in IOS

The EU Structural fund project ERDF 2011/0045/2DP/2.1.1.3.1./11/IPIA/viaa/001 *"The development of research infrastructure for the State Research Centre of Pharmacy and Biomedicine"*:

17,75milj. EUR EU contribution
~2 milj. EUR IOS contribution



New laboratories: ERDF funds

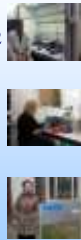


New laboratories: ERDF funds



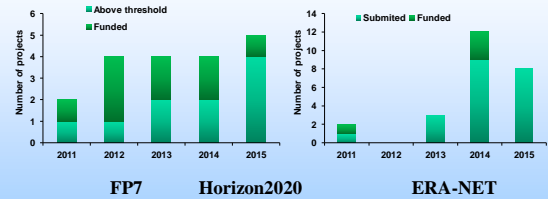
InnovaBalt results

- The *InnovaBalt* recruited researchers and IOS researchers after visits in partnering institutions have published **37 research articles** in international journals and compiled 2 patent applications
- The *InnovaBalt* project supported visits of IOS researchers to **59 international events**, project writing meetings and information days.
- IOS researchers have submitted 13 proposals in different **Horizon2020** calls, thus far 3 have been successful, 5 - above threshold;
- IOS researchers have submitted 20 proposals in calls of 7 different **ERA-Nets**, thus far 3 successful projects.

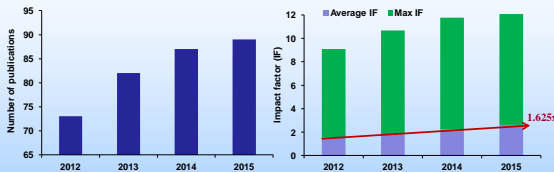


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EU Projects



IOS Publications in SCOPUS



Example - synergy

The acquisition of high-field NMR equipment was funded by the EU Structural funds project **ERDF 2011/0045/2DP/2.1.1.3.1/11/IPIA/ viaa/001** "The development of research infrastructure for the State Research Centre of Pharmacy and Biomedicine" EU contribution: 17.75milj. EUR; IOS contribution ~2 milj. EUR

InnovaBalt project provides synergy with EU Structural funds and offers possibilities for cooperation with the leading outstanding NMR centres in Europe



4 *InnovaBalt* recruited researchers working in the NMR team

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Example - Project

Dr. H. Biverstål is recruited by *InnovaBalt* to increase IOS research capacity in the field of protein NMR spectroscopy for drug discovery applications, which is in line with a recent acquisition of a new 800 MHz NMR spectrometer for biomolecular studies

His application for research funding was successful in the European Economic Area (EEA) and Norway Grant program. Project “*Benefits and detrimental effects of sequence variants of Amyloid-β towards the use of small peptides for aggregate dissolution therapy in dementia*”, **499 000 EUR**



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Example – M. Curie fellowship



- Dr. Kristaps Jaudzems has been awarded M. Curie Individual fellowship “*Development of high field DNP-enhanced MAS NMR techniques for structure determination of viral capsids*” (Virus-DNP-NMR) in collaboration with *InnovaBalt* strategic partner Centre de RMN à Très Hauts Champs, Ecole Normale Supérieure de Lyon, France



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Example - Equipment

InnovaBalt project financed purchase of **Zetasizer Nano ZSP** system to perform studies of nanoparticles and to determine molecular weight of proteins. The equipment is extensively used for:

- studies and characterization of nanoparticles formed by cationic self-assembling compounds funded by the European Social Fund, project Nr. **ESF 2013/0002/1DP/1.1.1.2.0/13/APIA/VIAA/005** and **EuroNanoMed**, project CheTherDel: *Chemo-hyperthermal Delivery – Combined chemo-hyperthermal control of hepatic tumors, based on microwave-activated subendothelial-targeted nano-assemblies*;

- studies and characterization of nanocatalysts funded by the European Social Fund, project Nr. **ESF 2013/0002/1DP/1.1.1.2.0/13/APIA/VIAA/006**



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Example - Equipment



InnovaBalt project financed purchase of hybrid CPU-GPU **computer cluster** to establish a platform for structure-based drug design and to perform large-scale molecular dynamics simulations of protein-inhibitor complexes. In addition, IOS has acquired license of **GAUSSIAN software package** within the ERDF co-financed project “*Implementation of the international Research Assessment Exercise recommendations*”^{2015/0025/2DP/2.1.1.3.3/15/APIA/VIAA/009} (EUR 1 006 353) which will allow chemists to perform quantum mechanical calculations of chemical reactions and reaction products

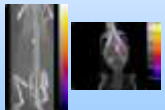


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Example - Equipment



- IOS researchers were able to join ERA-NET NEURON project “*Neuroinflammatory mechanisms of chronic neurodegeneration and cognitive decline following traumatic brain injury*”, CnsAflame (Funding **209 990 EUR**) the InSyTe FLECT/CT 360° system (*InnovaBalt* project) – fluorescence tomography/x-ray computed tomography system to study true anatomical displacement of small animals and accurately measure near infrared fluorophore concentrations throughout the region of interest in vivo will be used for the project activities



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Example - Projects

Together with 4 *InnovaBalt* partnering institutions:

University of Parma,
University of Antwerp
University of Helsinki
University of Ljubljana



IOS participated in the consortium which successfully applied for an Innovative Training Network grant in **Horizon 2020** call H2020-MSCA-ITN-2014: “*Interdisciplinary Training Network for Validation of Gram-Negative Antibacterial Targets*” **INTEGRATE**, Funding: **223 578 EUR**



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“The whole is greater than the sum of its parts.” *Aristotle*

The diagram features three interlocking gears: a top gear labeled 'EU Funding', a middle gear labeled 'National Funding', and a bottom gear labeled 'Structural Funds'. A fourth gear, colored yellow and labeled 'Local Administration', is positioned below the 'National Funding' gear. Three purple arrows point towards the gears: the top arrow is labeled 'EU Policies Regional Policies', the middle arrow is labeled 'National Policies', and the bottom arrow is labeled 'Local Administration'. The entire diagram is set against a light blue background with a gradient. In the top right corner, there is a logo for 'InnovaBalt' with a star icon. In the bottom right corner, the number '25' is displayed.

Thank you for attention !

The slide has a light blue background with a gradient. In the top right corner, there is a logo for 'InnovaBalt' with a star icon. In the center, the text 'Thank you for attention !' is written in a dark blue font. Below the text, the 'InnovaBalt' logo is repeated.