Baltic TRAM conference *Analytical Research for Industry - Novel Options for Enhanced Cooperation*
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Promoting the Use of Basic Research Infrastructures by Industry: report on an empirical study

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Presentation based on the report
Study on Better Cooperation between Research Infrastructures and Industry
by the Technopolis Group Baltics
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OUTLINE

- Rationale / Methodology
- Programmes examined
- What we learned: challenges and opportunities

Programmes examined

- Focus on promoting interactions with **small and medium enterprises**

- Focus on research infrastructures that are devoted to the **study of condensed matter**

- photon sources
- neutron sources
- NMR
- electron microscopes
- high magnetic fields

- electronics/computing/communications
- health
- aerospace / defense
- energy
- environmental protection
- transportation
- etc.

Programmes examined

Single Facility

- ISIS Collaborative R&D programme (UK)
- nSoft at NIST Center for Neutron Research (USA/NIST)
- InSitμ at CHESS (USA/NSF)
- Schull Wollan Center at ORNL (USA/DOE)
- Argonne Advanced Photon Source (USA/DOE)
- Stanford Linear Coherent Light Source (USA/DOE)

Multi-Facility

- LINX (DK)
- ATTRACT (EU)

Intermediaries

- Excelsus Structural Solutions (BE/CH)
- Colloidal Resources (SE)

What we learned

Challenges / Obstacles

- Mapping needs to analytical capabilities
- Access criteria / procedures /timelines
- Learning to use the facility/equipment
- Involving the research infrastructure's personnel
- Confidentiality and IPR
- Costs and expenses
- Risk management

What we learned

Opportunities / Solutions

- Allowing industrial ownership of a portion of the research infrastructure
- Assigning a fixed fraction of analytical resources for industrial use
- Including “technological relevance” among proposal evaluation criteria
- Implementing access modes that meet the needs of industry, e.g., “rapid”, “discretio
- Building special-purpose experimental equipment and software
- Providing appropriate legal instruments, esp. for proprietary measurements
- Establishing a formal dedicated programme for collaboration with industry

What we learned

Opportunities / Solutions

- Establishing a formal dedicated programme for collaboration with industry
  - Choosing the right staff (motivation, experience, understanding)
  - Allowing appropriate career paths for infrastructure personnel
  - Including students in collaborative teams
  - Getting support from the infrastructure's managers
  - Designing diverse outreach activities
  - Being an effective interface to the access and operating procedures
  - Being realistic about funding and cost recovery
  - Anticipating the uncertainties and risks of industrial collaborations
  - Making sure that the funding agency is fully informed and engaged

Thank you