



Intellectual Property and Technology Transfer management

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CARE Collaboration Council meeting
DESY, 4 November 2004



Dissemination

- The CARE Dissemination Board covers issues related to both the diffusion of scientific and technical information, and more properly to the dissemination of the results to the potential users
- Dissemination proper meaning is related to "seeding and harvesting"
- The seeds are the technologies
- The harvesting is the result of a Technology Transfer activity



How is TT carried-out

- One makes Technology Transfer in many ways:
 - transferring knowledge (education, personnel)
 - purchasing
 - licensing mature technologies
 - doing collaborative R&D with industry
 - carrying-out partnerships with industry for specific implementations



CARE specificity

- CARE is an I 3 under FP6
- This implies a special attention to TT and marketing aspects
- It is not just a matter of Intellectual Property protection, but a matter of exploitation of results
- Exploitation has to be seen as any means that brings to an advantage for industry and for society at large, with a return to the inventors

Examples in FP5



- FP5 was much less market oriented than FP6, though....
- ...even in a FP5 project the EC requires a proof of the TT to the external world
- e.g. in the MammoGrid project (I ST FP5, lead by CERN, 2 M€, 36 months) the EC requested:
 - 1 Dissemination and Use Plan
 - 3 Market Analysis documents
 - 1 Business Plan



Accelerators and TT

- The domain of accelerator design is a particularly fruitful source of TT
- Technologies developed are often breakthrough ones
- Vacuum, material science, magnets, detector, control systems, etc. are all in the streamline of the TT activity



Examples of TT from Accelerators

- High Temperature Superconducting cables:
 - technology vital for future accelerator design
 - TT assessment of technology under way
 - extremely promising for magnet development outside the HEP field
 - contacts with industry for application to NMR



Examples of TT from Accelerators

- Hadrotherapy:
 - efforts put by CERN and partners in collaborative R&D (PIMMS, Proton Ion Medical Machine Study)
 - specific design studies (CERN with TERA)
 - Intellectual Property protection
 - partnership agreement for hadrotherapy centres construction (CNAO in Italy)
 - future "clients" expected (Med-Austron,...)

How to proceed



- Need to assess technologies inside CARE
 - This may take place 9-12 months after project start-up
 - All the Consortium involved
 - Technology assessment followed by Market assessment and Technology valuation
- Care (!) in drafting collaboration and partnership agreements
 - With whoever
 - Protect background know-how
 - Define IP sharing from as early as possible
 - Results belong to Consortium



Special aspects of CARE

- Activity distributed among several big centres
- Each one has its own TT structure (hopefully)
- Need to harmonize overall policy
- Need of centralized management
- This implies an office, not just a person



Solution 1

- One Lab in CARE takes over the responsibility of TT
- This person works full time for CARE, paid by CARE
- An office (lawyer, assistant, etc.) needed (may be partly included in the Lab TT service provision)
- Network with other TT offices in partner Labs enforced



Solution 2

- One TT Officer, belonging to a local TT service in a partner Lab, takes over supervision responsibility for TT
- Part time work supported by CARE
- Need a dedicated full-time person to carry-out daily work - on CARE funds
- Rely on local assistance (lawyer etc.) as much as possible
- Supervisor coordinates works with other TT services in partner Labs (need to enforce harmonization of policies)



Solution 3

- One Lab provides a "consultancy" on TT issues
- All work is carried-out at local TT services in partner Labs
- Need strong preliminary steps to harmonize policies, but loose strings afterwards
- Need careful communication pattern
- Need to define clear lines-of-reporting and lines-of-command



Common to all solutions

- The person, be it responsible for TT or supervisor or consultant, works for proper dissemination, but not for diffusion of scientific results
- Overview of paper's quality, conference presentations etc. is someone else's task
- Yet, the person in question has to be involved (awareness, consultancy) in promotional events: Promotion is instrumental to TT



CERN TT

- Small though aggressive and efficient group
- No way to provide skilled professional for Solution 1
- Solution 2 possible, with assisting full-time person resident at CERN under CERN TT supervision on behalf of whole CARE
- Solution 3 is minor engagements

CERN TT for CERN



- Anyway, CERN TT shall be involved in all CERN CARE technology transfer paper works...
- ...but the point is not the legal aspects, the point here is the project-wide action of
 - assessing technologies,
 - monitoring their advancement,
 - assessing markets,
 - promoting,
 - contacting external potential exploiters,
 - agreeing terms,
 - and finally, doing the paper work.