

cern.ch/knowledgetransfer

KT Introduction

G. Anelli, KT Group Leader

BE – KT Innovation Day

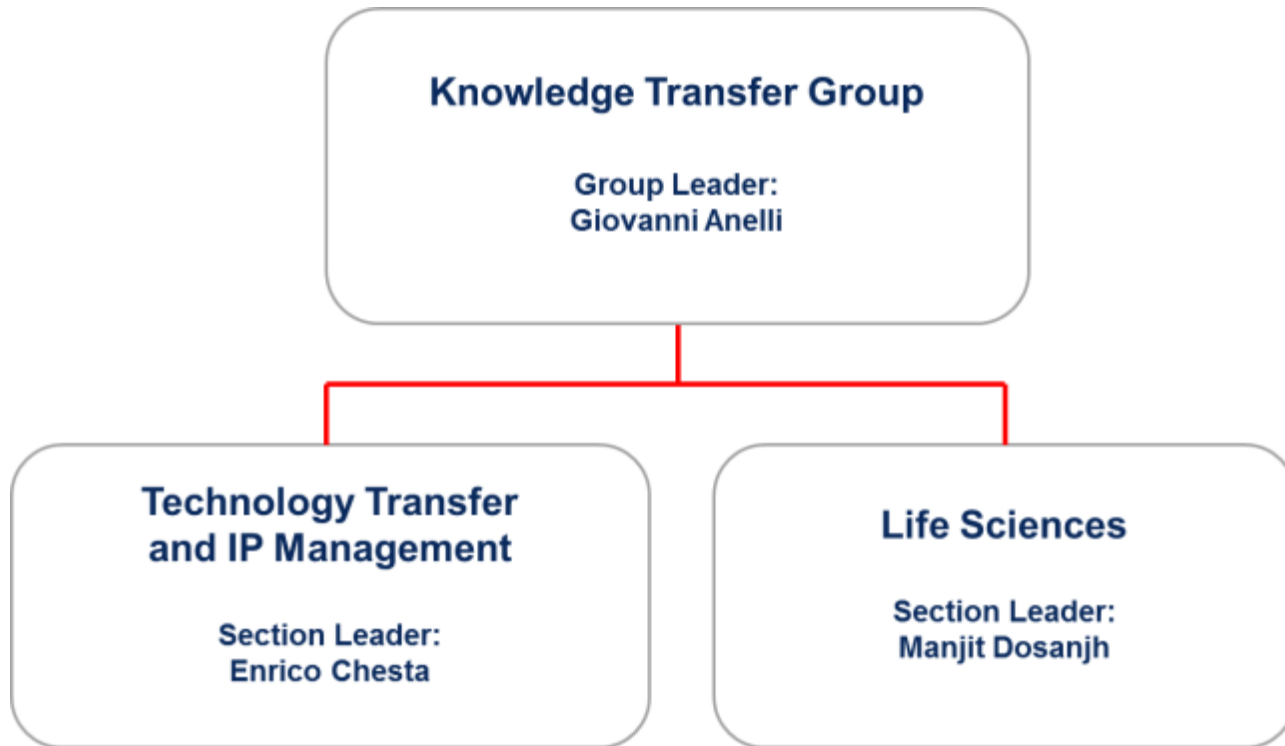


Why are we here today?

- Raise awareness about our activities (who we are, what we do, how we can help you)
- Scout for new technologies, ideas
- Discuss about new ways of doing Knowledge Transfer
- Anything else?



The CERN FP / KT Group



The KT Group Mandate

- Optimize the impact of CERN's science, technology and know-how on society and promote knowledge exchange with CERN's stakeholders.
- Function as a catalyst to foster KT transfer between the different stakeholders. Promote and sustain a culture of inventiveness and of knowledge and technology transfer.
- Promote, raise awareness and participate in multidisciplinary activities, in particular those relevant to life sciences application.

Key words: dissemination and impact!



10 years of ENLIGHT Collaboration

CERN physics into health field



- Common mutual interests
- Identify challenges
- Share knowledge
- Share best practices
- Harmonise standards
- Provide training
- Innovate
- Lobbying

Coordinate



> 150 institutes

> 400 people

> 25 countries

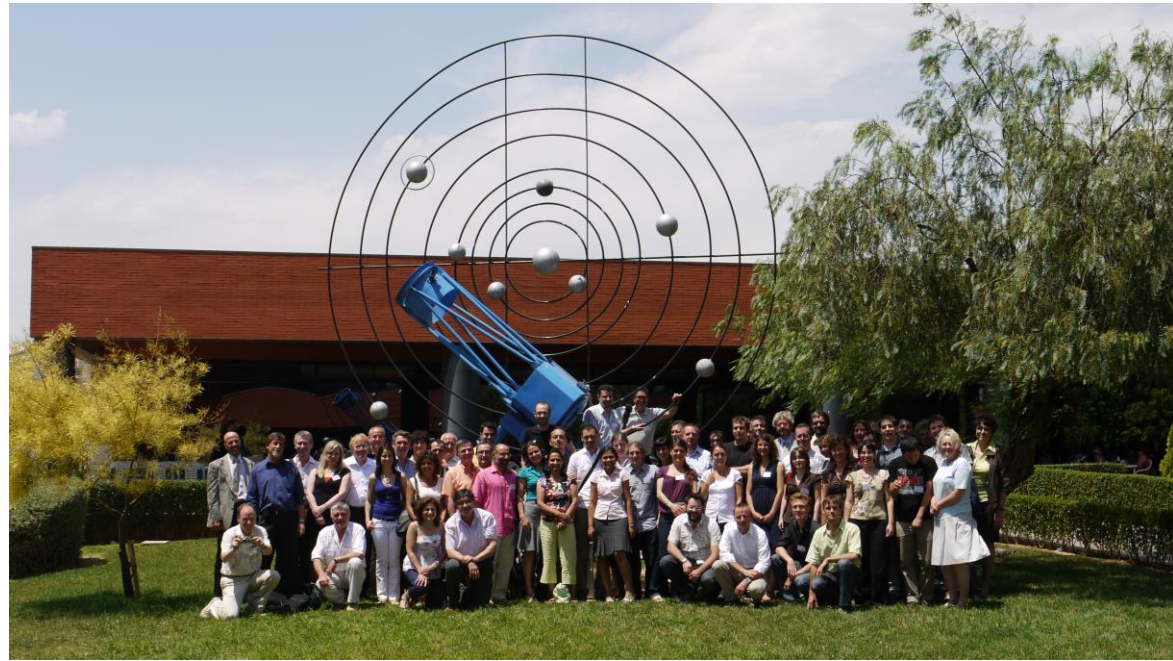
(with >80% of MS involved)



One of the ENLIGHT platform projects: PARTNER

Particle Training Network for European Radiotherapy

- 4-year Marie Curie Training project
 - Funded by the EC with 5.6 M Euros
 - 2008 - 2012
- Aimed at the creation of the next generation of experts



- Brought together key academic institutes and research centres and IBA and Siemens
- Research and training opportunities for 25 young biologists, engineers, physicians and physicists
- PARTNER research published in Open Access Journal of Radiation Research



Envision and Entervision



Accurate positioning is a crucial challenge for targeting moving organs during particle treatment



- R&D in real-time medical imaging for more precise and effective hadron therapy
- Now in its last year
 - 2 demonstrators for real time imaging have been constructed and are being tested
 - More than 40 scientific publications and 80 conference talks/posters

-
- Marie Curie ITN for young scientists
 - Uses ENVISION as training platform
 - 15 researchers recruited so far
 - 12 Early Stage, 3 Experienced
 - 9 nationalities
 - From medical physics, engineering, nuclear physics, HEP, biological physics

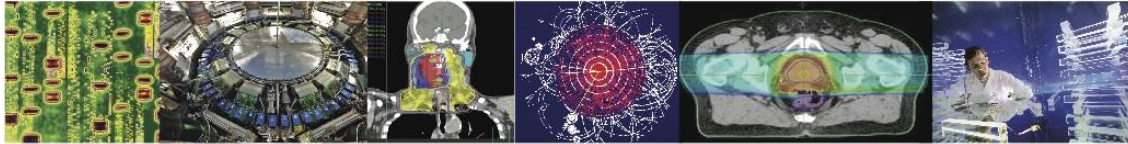


ULICE



- Transnational access to beam time at HIT and CNAO successfully implemented
- Joint research activities: New gantry design being finalized
- Training courses at HIT and CNAO
 - For physicians and physicists already working in hadron therapy
 - For physicians, physicists, biologists who want beam time for their experiments





February 27 – March 2, 2012 at CICG, Geneva

2 days devoted to physics, 2 days to medicine, 1 day of
Over 700 people registered, nearly 400 Abstracts
Chairs: Jacques Bernier (Genolier) and Mani

Four physics subjects :

- Radiobiology in therapy
- Detectors and m
- Radioisotc, and therapy
- Novel technologies

**Next ICTR-PHE Conference
10-14 February 2014**



A few key messages

- Internal TT network: use it! (5 people in BE)
- Need your help in the preparation of a CERN Know-how map (Market pull vs Technology push)
- We have to make sure that the IP belonging to CERN is recognized as such
- You do technology transfer: we can help making it happen or making it more visible
- Help us tracking KT activities important for our Member States (for example, through trainings and purchasing)



Visit our website,
suggest
improvements!

[www.cern.ch/
knowledgetransfer](http://www.cern.ch/knowledgetransfer)

Knowledge Transfer

 Search

[Home](#) [Technology Transfer Office](#) [Life sciences](#) [Our team](#) [Contact us](#)

Technology portfolio

All CERN technologies listed below are available for licensing and/or research collaborations with industry or institutes:

- 3D Magnetic sensor calorator
- Compact cryogenic cooling pump
- CRISTAL
- Cryogenic optical fiber temperature sensor
- Cryogenic Saving Unit
- Diaphragm System
- Evacuatable Flat Panel Solar Collector
- Fast front-end readout electronics for photon and electron counting applications
- Gas electron multiplier
- High performance time to digital converter
- High power high frequency loads for energy recovery
- Hood clamshell tool
- Indico
- Integrated CO2 cooling system
- Invenio
- MammoGrid
- Medipix2
- Method for the production of carrier-free radioisotopes
- Micro Chemical Vias
- Micro-scrintillation particle detector for hadrontherapy
- Mounting mechanism for cartisaver with high precision positioning
- Multifunctional detector
- Neutron-driven element transmuter
- NiceAdmin
- NIND
- Non-evaporable getter (NEG) thin film coatings
- OrinOx: Data compression
- Palladium thin-film coatings
- PHOSWICH
- Power converter with integrated energy storage
- Pulse tube refrigerator/cryo-cooler
- Quantum osimetry
- Reduction of SEY by magnetic roughness
- Resistive MicroMegas
- RF Waveguide Vacuum Valve
- ROOT
- Single layer 3D tracking semiconductor detector
- Thermally insulatable vessel
- Titanium polishing

[View technologies by domain >](#)



A whole spectrum of opportunities



Licensing

Service and
Consultancy

Open Hardware

Easy Access IP

R&D
collaborations

Spin Offs

