



IBA experience in EU projects

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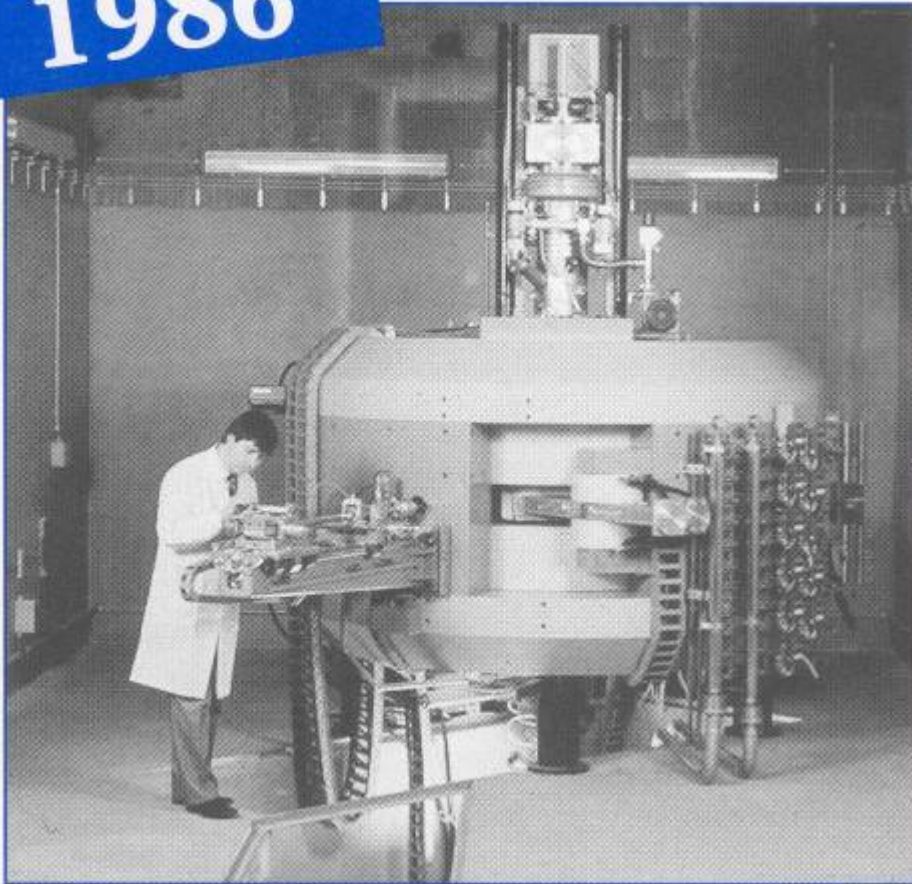
Axis Parc, 17 March 2011



We Protect, Enhance and Save Lives.

Once upon a time...

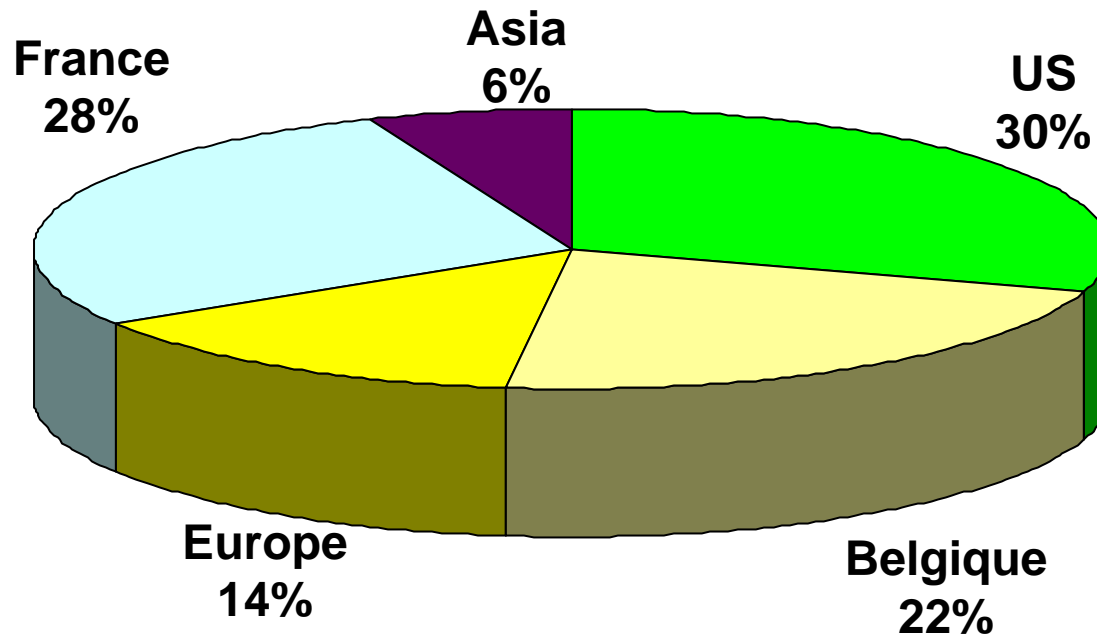
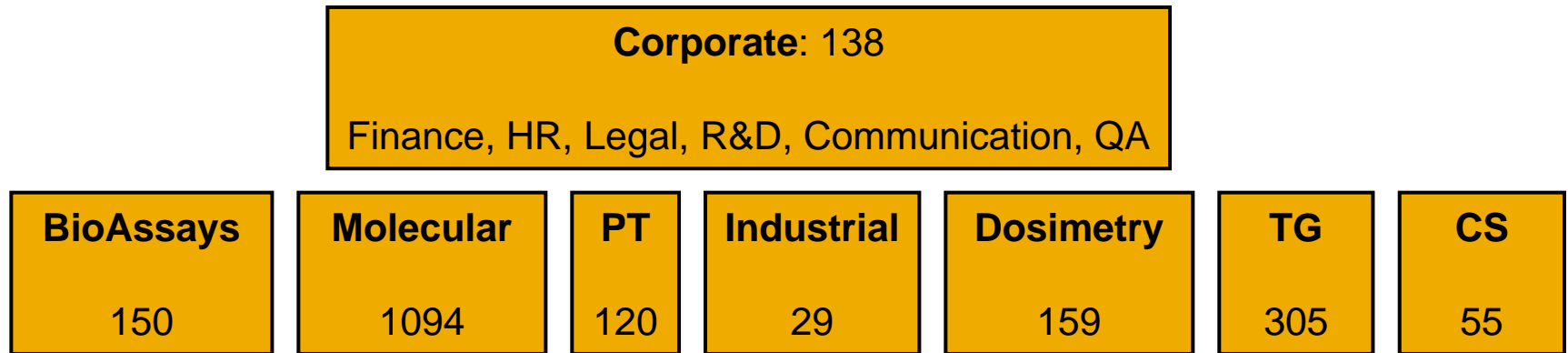
1986



- ❑ The story of IBA started when our university team imagined to produce a cyclotron for the production of medical radioisotopes...
- ❑ Producing 5x more output and consuming 3x Less energy than any existing cyclotrons...
- ❑ Truly a revolutionary cyclotron
- ❑ UCL filed international patent application WO 86/06924 for a “Cyclotron”

Iba

IBA Group Structure: 2050 Employees Worldwide



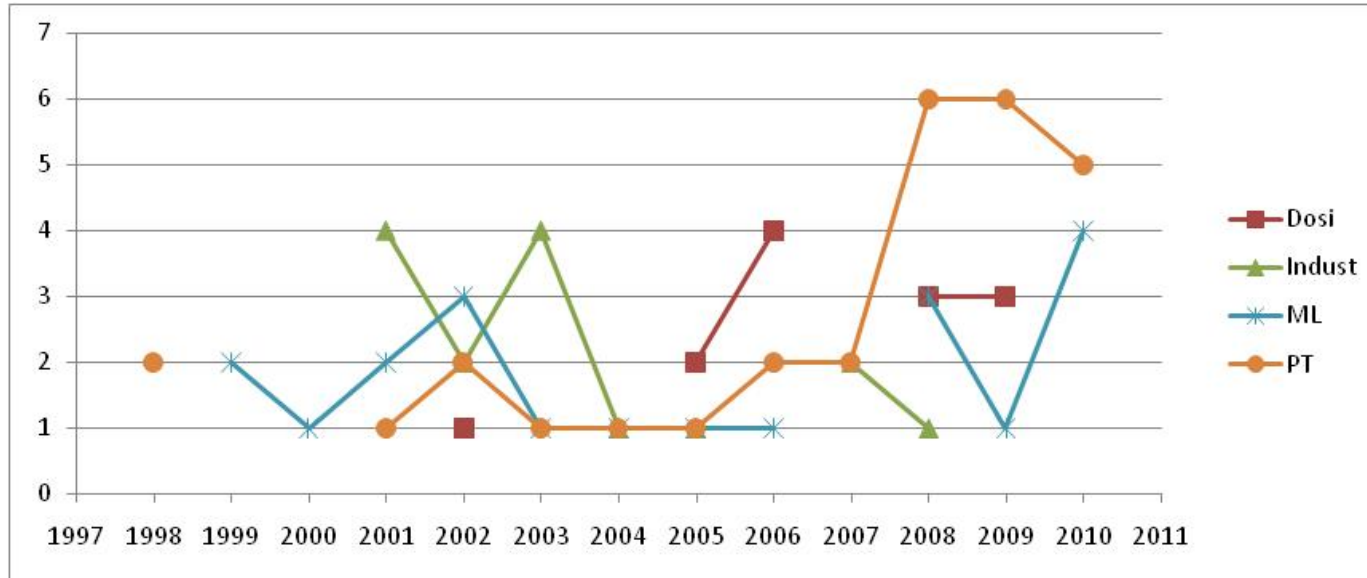
Proton therapy center

€30-55 millions for equipment
€45-100 millions for the center



Iba

IBA Patent Applications (first filings)



Applicant:
IBA sa

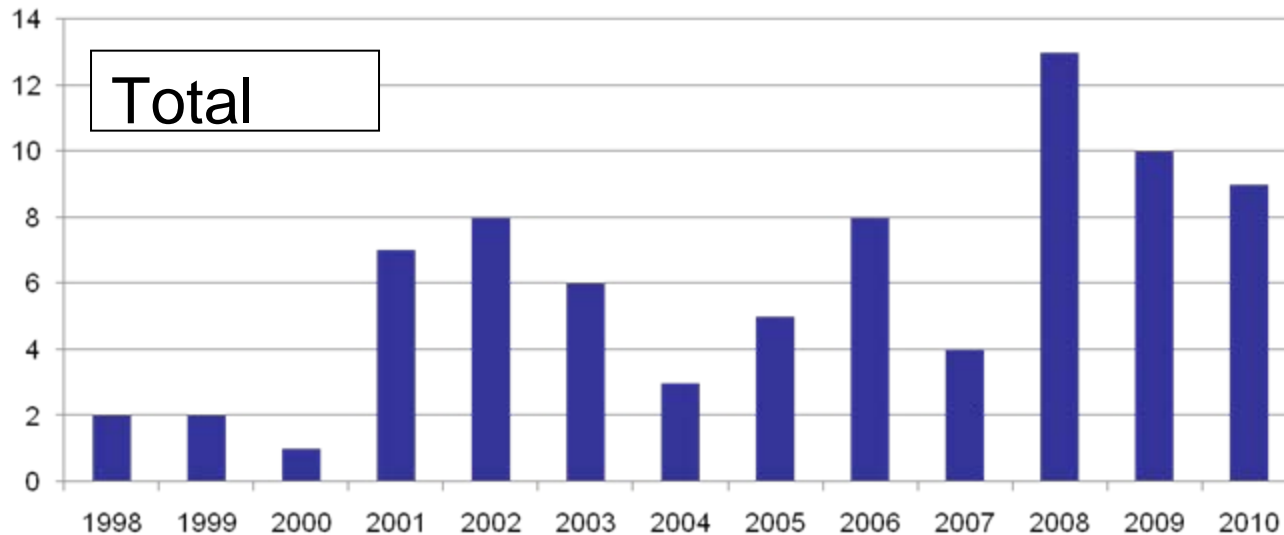
Total: 78

PT: 29

ML: 20

Indus: 15

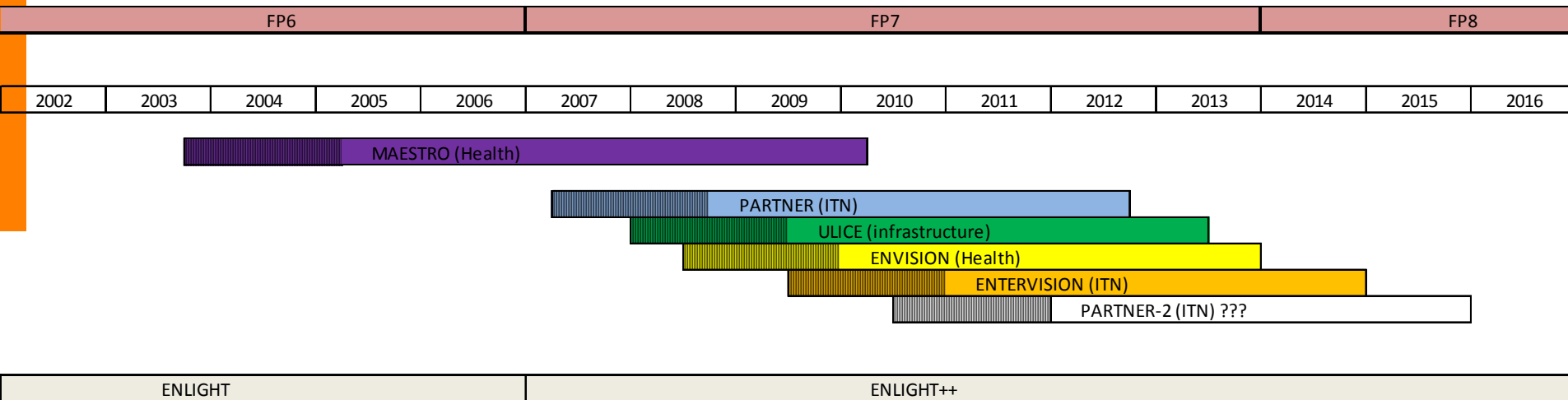
Dosi: 13



Agenda

- Part 1: EU-funded projects at IBA...
- Part 2: Creation of a Valorisation Committee for one EU-funded project...

IBA has participated in 5 EU-funded projects



□ **FP6:** one project (closed)

□ **FP7:**

- 4 ongoing projects
- 1 new submission

➔ Those 5 projects were submitted by the ENLIGHT++ consortium!

ENLIGHT (European Network for LIght ion Hadron Therapy)

- **ENLIGHT** is a multidisciplinary platform that aims at a coordinated effort towards ion beam research in Europe.

- **The ENLIGHT network:**
 - > 150 researchers from PT community over 16 European countries
 - > 50 European Universities and research Institutes
 - Companies: IBA, Siemens, Raysearch

- **Major success:**
 - Uniting traditionally separate communities so that clinicians, physicists, biologists and engineers with experience and interest in particle therapy work together.
 - Regular and organised exchanges of data, information, best practices, etc.
 - Submission of project proposal for EU funding (FP7)

ENLIGHT (European Network for LIght ion Hadron Therapy)

□ History:

- ENLIGHT was established in 2002 :
 - composed of: Centres in Heidelberg, Lyon, and Pavia, CERN, EORTC, ESTRO, GSI, Karolinska, MedAustron, TERA, Czech Rep, Spain
 - Main achievements:
 - Creation of a European Hadrontherapy Community
 - Common multidisciplinary platform with a shared vision
 - Catalysed the transition from research to the clinical environment, 5 centres approved in Europe
 - Served as a vehicle for education and dissemination
- 2006: From ENLIGHT to ENLIGHT++:
 - + one “plus” for more hadrons (specifically protons),
 - ++ the second “plus” refers to more Countries (17 countries, with >60 Institutions)

IBA experience

□ Positive aspects:

- Funding for IBA research projects
- Networking & technology watch
- ENLIGHT++
- NCP support

□ Difficulties:

- Long delay between proposal & project start (→ risk of resynchronisation with IBA priority when project starts).
- Relation with competitors in the consortia.
- Management of EU project takes some time...

□ Globally:

- IBA very satisfied. ENLIGHT helps a lot!



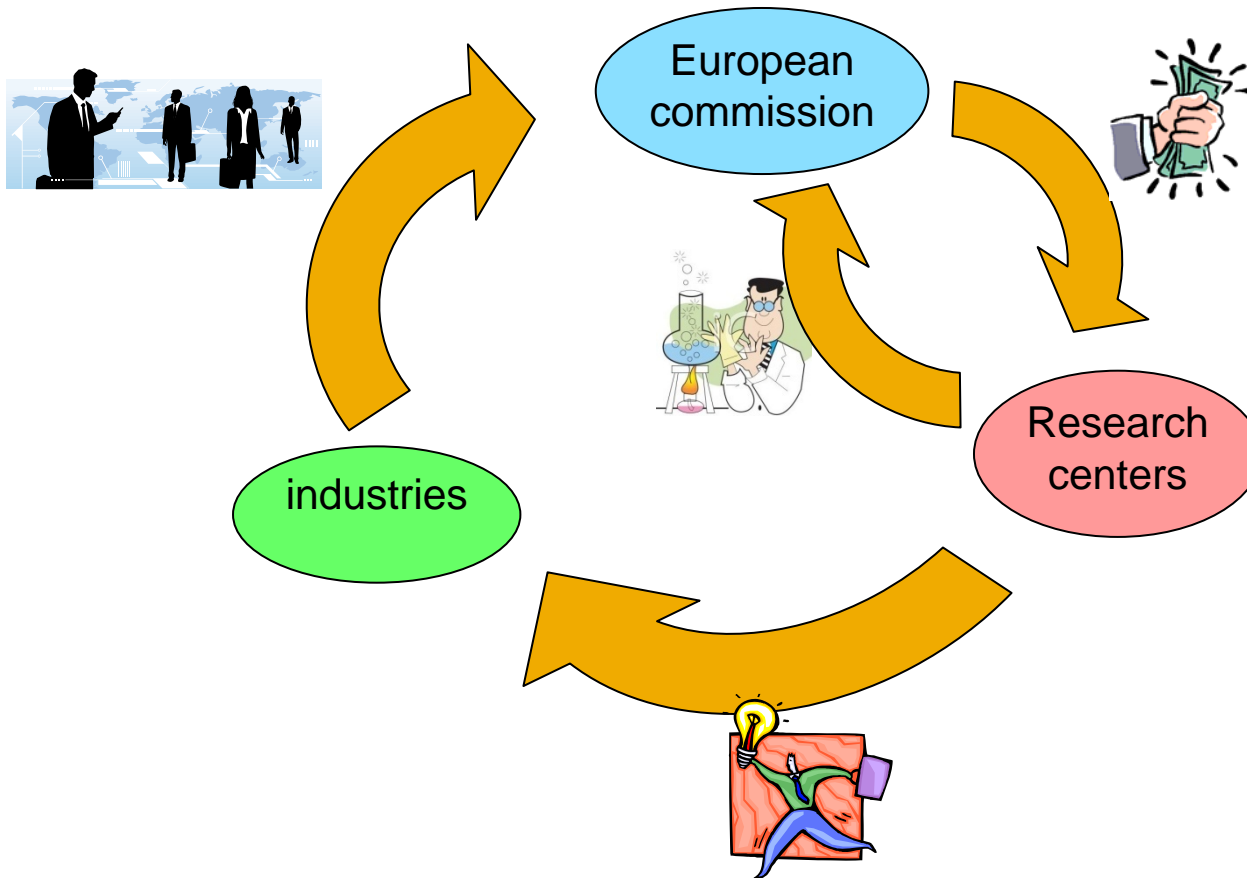
Agenda

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- Part 2: Creation of a Valorisation Committee for one EU-funded project...

About ENVISION project...

- ❑ **ENVISION:** European NoVel Imaging Systems for ION therapy
- ❑ **Project size:**
 - 14 Beneficiaries (13 academic's + IBA)
 - 6 M€
 - 2010 – 2014
- ❑ **Organisation:**
 - 7 WP:
 - WP1: project management
 - WP2 – WP6: scientific
 - WP7: Communication & Valorisation
 - 2 WP leaders / WP
- ❑ **IBA involvement:**
 - Contributing to 4 scientific WPs (IBA budget = 59 man-month)
 - Co-leader of WP7 (Responsible of Valorisation, 2 man-month)

Objective of WP 7.5



WP 7.5 will focus on how to exploit the research performed within the WPs and guarantee the possible industrialisation of the work.

Step 1: creation of the valorisation committee



- ICx Technologies GmbH is part of ICx Technologies inc.
- Mission: Nuclear detection for homeland security
- Strong collaboration with TUD in the field of Compton imaging
- Representative: Guntram Pausch

➔ **ICx prefers not to participate to the VC. But they will contribute to the exploitation of the *foreground* in their specific domain (homeland security)**



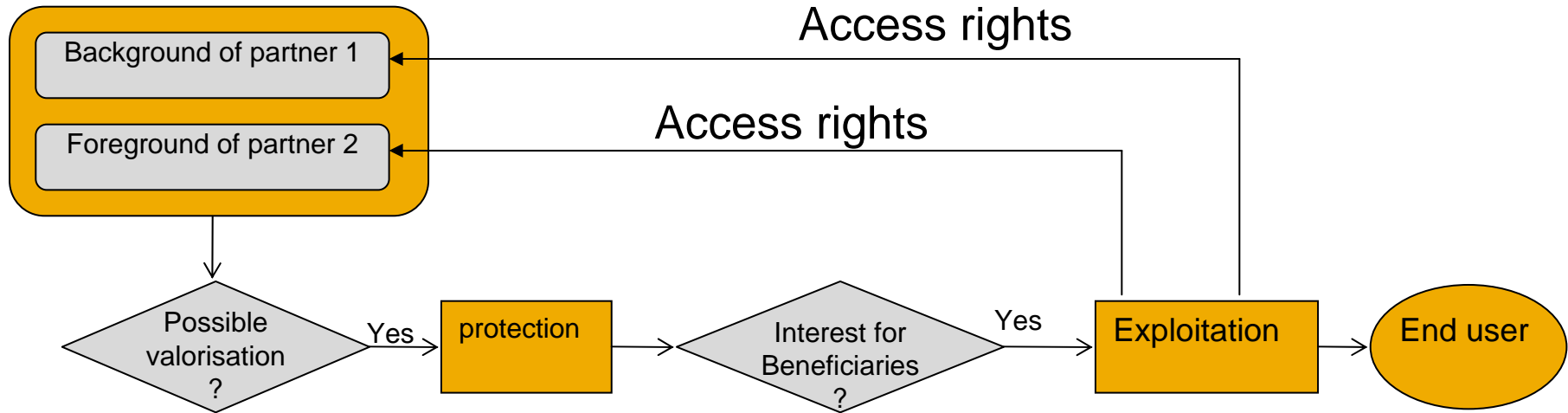
- IBA-PT is the therapy branch of IBA.
- Mission: Fight against cancer
- Participation in WP3, 4, 5 and 6.
- Representative: Damien Prieels

➔ **The Valorisation Committee (VC) is created (D 7.5) and is composed of only one industrial partner: IBA (...)**



Step 2: Put in place valorisation mechanisms (1)

Example of valorisation scheme:



Guidelines (GA & CA):

1. Ownership and protection of Foreground
2. Access rights

Step 2: Put in place valorisation mechanisms (2)

□ The VCO will organise meetings with the WP leader + STCC (+ Advisory Committee):

- Monitor overall activities & promote industrial valorisation of the research
- Demonstrate to EC how the research outcomes can lead to market products.

□ Role of VCO:

- Formulate appropriate recommendations in order to increase the chance of future valorisation by industries.
- Advise the Beneficiaries with regards to protection and exploitation of Foreground
- Guarantee that re-engineering is possible (no re-engineering at this stage)

Some rules:

- Remain general (no focus on a particular system)
- Consider possible exploitation outside actual domain...

□ Role of STCC & WP:

- Compile & present the results of research
 - Identify possible valorisation
- May require some preparation work within the WP.

□ Meeting frequency: TBD (at least once a year..)

Step 3: Reporting

Contribute to part 2 of PUDF (D 7.7 – M48):

Table B1: List of IP

TEMPLATE B1: LIST OF APPLICATIONS FOR PATENTS, TRADEMARKS, REGISTERED DESIGNS, ETC.					
Type of IP Rights ¹ :	Confidential Click on YES/NO	Foreseen embargo date dd/mm/yyyy	Application reference(s) (e.g. EP123456)	Subject or title of application	Applicant (s) (as on the application)

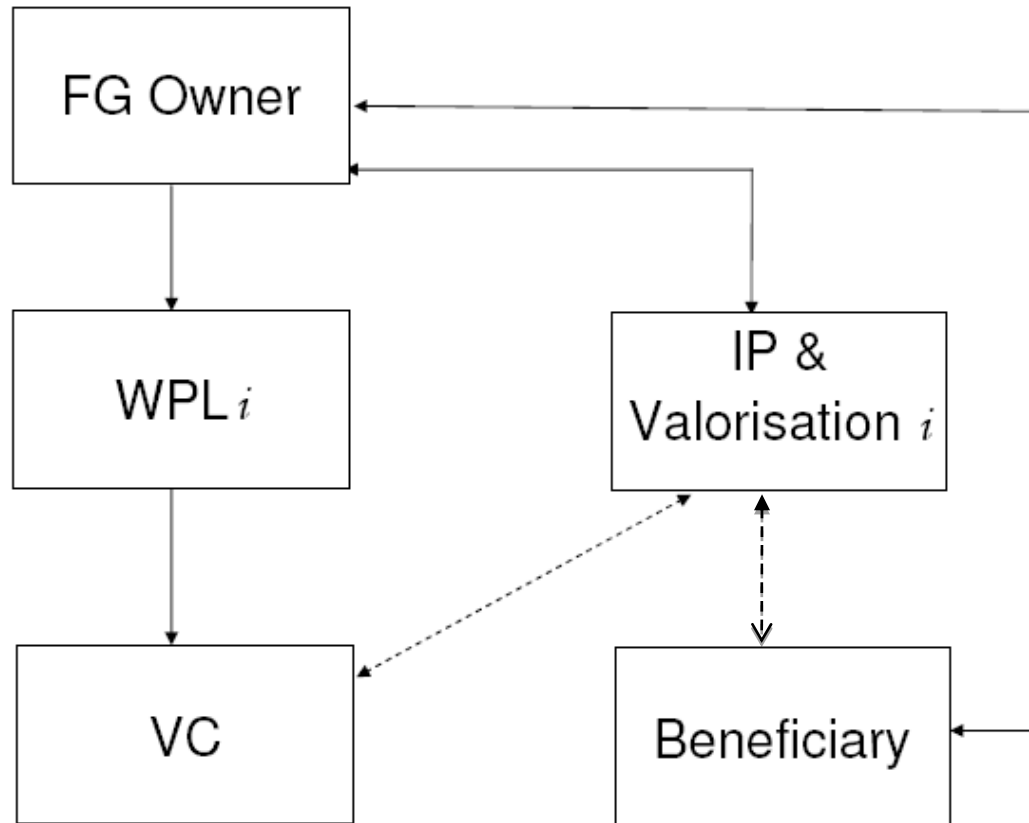
Table B2:

- List exploitable foreground + purpose
- Provide plans for exploitation (How, when and by whom)
- IPR exploitable measures taken or intended
- Further research necessary, if any
- Potential/expected impact (quantify where possible)

Type of Exploitable Foreground ²	Description of exploitable foreground	Confidential Click on YES/NO	Foreseen embargo date dd/mm/yyyy	Exploitable product(s) or measure(s)	Sector(s) of application ³	Timetable, commercial or any other use	Patents or other IPR exploitation (licences)	Owner & Other Beneficiary(s) involved
	<i>Ex: New superconductive Nb-Ti alloy</i>			<i>MRI equipment</i>	<i>1. Medical 2. Industrial inspection</i>	<i>2008 2010</i>	<i>A materials patent is planned for 2006</i>	<i>Beneficiary X (owner) Beneficiary Y, Beneficiary Z, Poss. licensing to equipment manuf. ABC</i>



Typical valorisation scheme



Patent application filing

- **Three aspects:**
 - Patentable
 - Technically feasible and advantageous
 - Useful tool in business competition

- **Patentability:**
 - Novelty
 - Inventive step
 - Industrial applicability

- **Special questions of patentability:**
 - Patentability of software
 - Method for treatment and diagnostic methods

In practice...

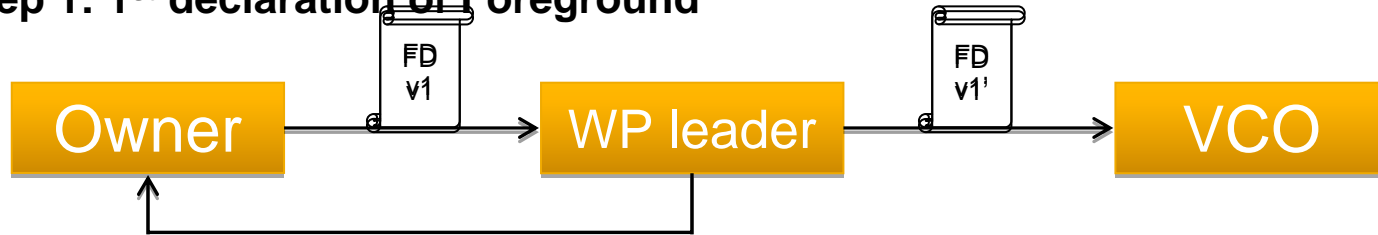
- **When a new result is obtained, the Owner should always ask himself/herself a series of questions :**
 - *Is there a possible exploitation of my result?*
 - *Who would benefit from it?*
 - *Is my result innovative?*
 - *Should I protect this result?*
 - *Do I know the responsible for IP & valorisation in my organisation?*
 - *Etc.*

- **The VC should be informed about this result in view of formulating appropriate recommendations in order to increase the chance of future industrial valorisation.**
 - → see “*Declaration of Foreground*” form

- **This should be done prior to publication.**

Proposition of process

- Step 1: 1st declaration of Foreground



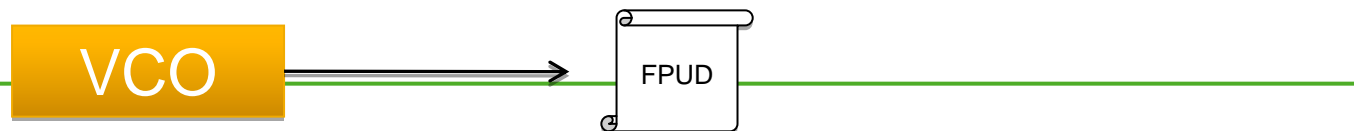
- Step 2: Analysis & recommendation from the VCO



- Step 3: Final declaration of Foreground



- Step 4: Integration in table B1 & B2 of FPUD



Conclusion...

- **As an industrial, being responsible of the WP dedicated to “valorisation” can be a strategic decision:**
 - It is the best position to observe the scientific results from the WPs.
 - It allows setting up adequate valorisation processes / exploitation of results.
 - It allows guiding academic Beneficiaries (for instance make sure that valuable results are protected before public disclosure).

- **This is even more in the actual context:**
 - Increasing importance of innovation in FP7 (and even more in FP8)
 - → See: “ COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS”

Thank you...

