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# **INVENTION AND IP ECONOMICS CDC/EIF INITIATIVES**

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# WHY ?

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- Economy of knowledge but where are the economics ? No finance, no market, no investment...
  - Innovation is key for growth and jobs creation, but few mechanisms to transform inventions in innovations
  - Intellectual Property has become central to the knowledge economy but still considered as a legal protection and not a transfer and monetization vehicle
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# Moreover...

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- The Intellectual Property agenda and economy are being shaped by US and Asia
  - Europe (still) has leading research but insufficient commercialisation
  - SMEs are particularly at a disadvantage
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# WIPO diagnostic

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“However, as greater technological complexity and more fragmented patent landscapes have increased the need for collaboration, there arguably is **scope for creative policy** thinking on **how best to incentivize the licensing or sharing of patent rights**”

# Knowledge Transfer Strategic Partnership

Signed in Rome - 16 June 2010

- **Creation of joint Working Group between:**
  - EIF/EIB
  - Caisse des Dépôts et Consignations (CDC – France)
  - Cassa depositi et Prestiti (CDP – Italy)
  - Centro para el Desarrollo Tecnológico e Industrial (CDTI - Spain)
  - Innovationsbron (Sweden)
  - KfW-Bankengruppe (Germany)
  - Veraventures (Finland)
  - AWS (Austria)
  - Scottish enterprises
  - BGK (Poland)
  
- **Aim of like-minded Partners with Long Term perspective is to:**
  - Support the emergence of European and national Knowledge Transfer Infrastructures
  - Accelerate transfer of European research and technology to the market
  - Facilitate a well functioning Knowledge Transfer and Intellectual Property economy
  - Encourage more open and transparent marketplaces for Intellectual Property
  - Exchange best practices and potentially to analyse investment opportunities jointly

# I- The Knowledge Transfer Challenge

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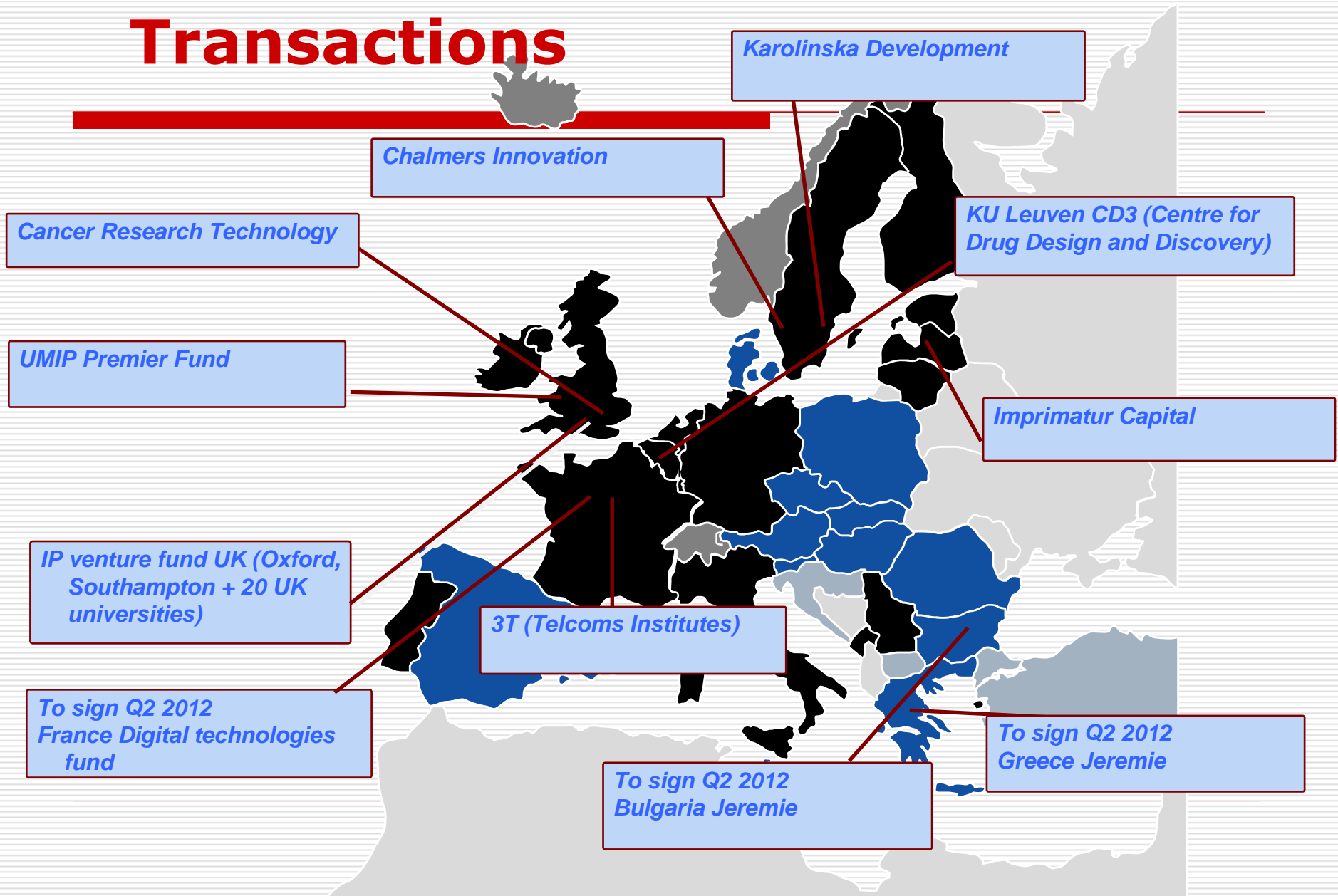
Knowledge or Technology Transfer takes different forms of transforming research into concrete products and services:

- ❑ Proof of concept, prototypes
- ❑ Contract research with industry
- ❑ Creation of start-up and spin-off
- ❑ New financial instruments to accelerate / facilitate Knowledge Transfer are increasingly important

All of the above are important to build a healthy, sustainable European Knowledge Transfer ecosystem

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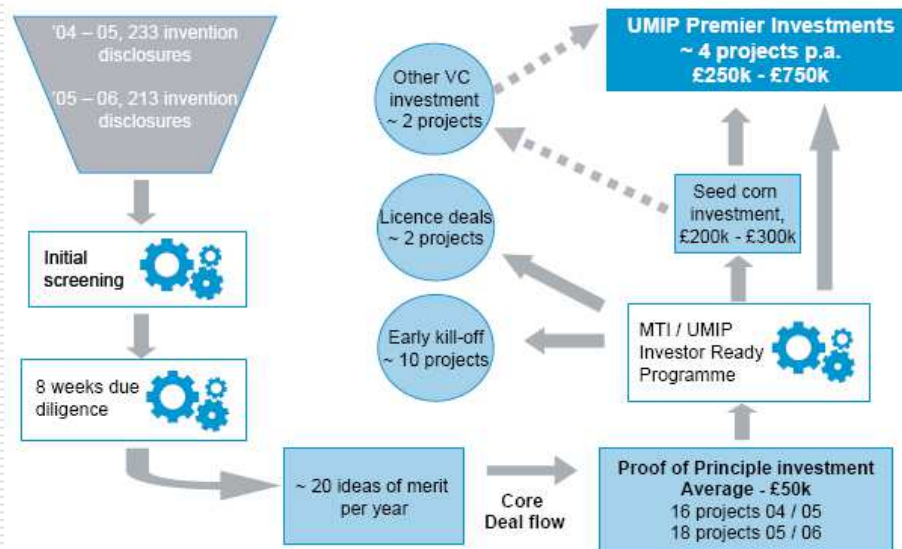
# Some EIF Tech Transfer Transactions



# Manchester: the Largest UK University Research Budget

## Manchester University / UMIP Premier Fund

### UMIP Deal-Flow Factory

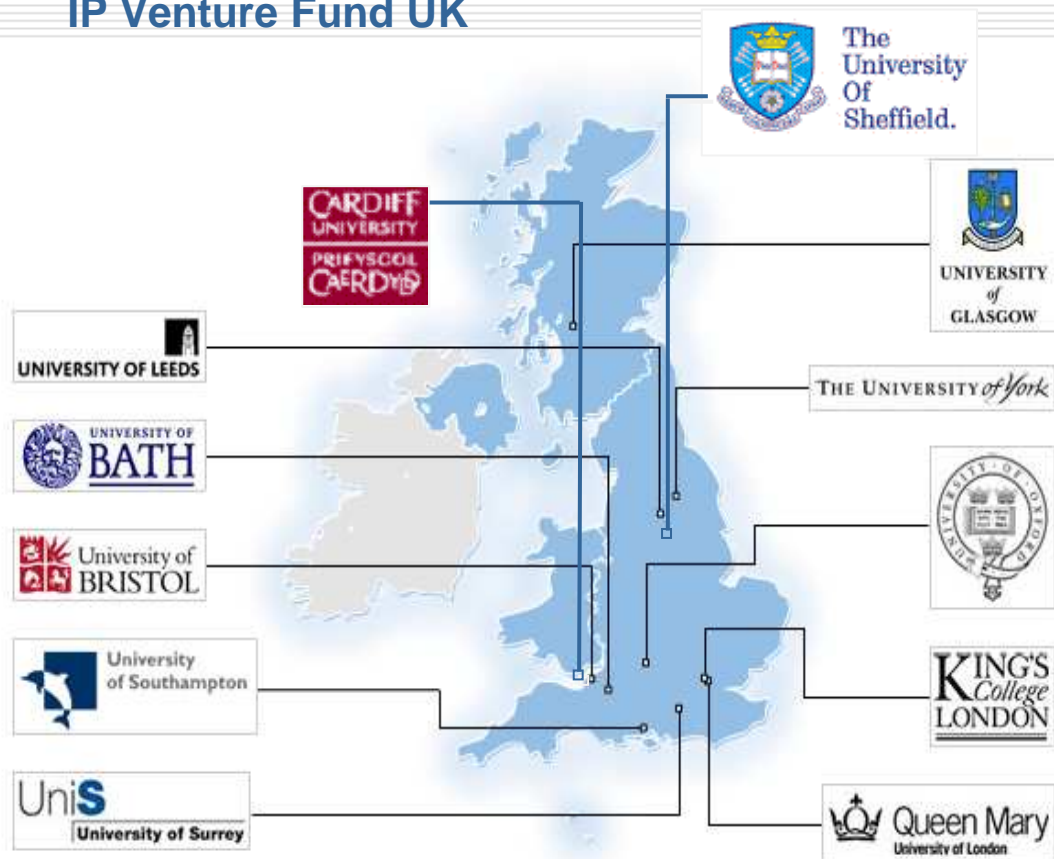


- 10 year Limited Partnership.
- Managed by VC firm: MTI partners
- GBP 32 m raised. 18 months between first pitch to EIF and first closing in 4/2008



# IP Group: Bringing together 12 Universities - 26 Spin-Outs in Three Years

## IP Venture Fund UK



- Co-investment fund (seed, post-seed financing)
- Critical mass reached through a network of universities
- Liquidity vs listing

Deal flow and critical mass

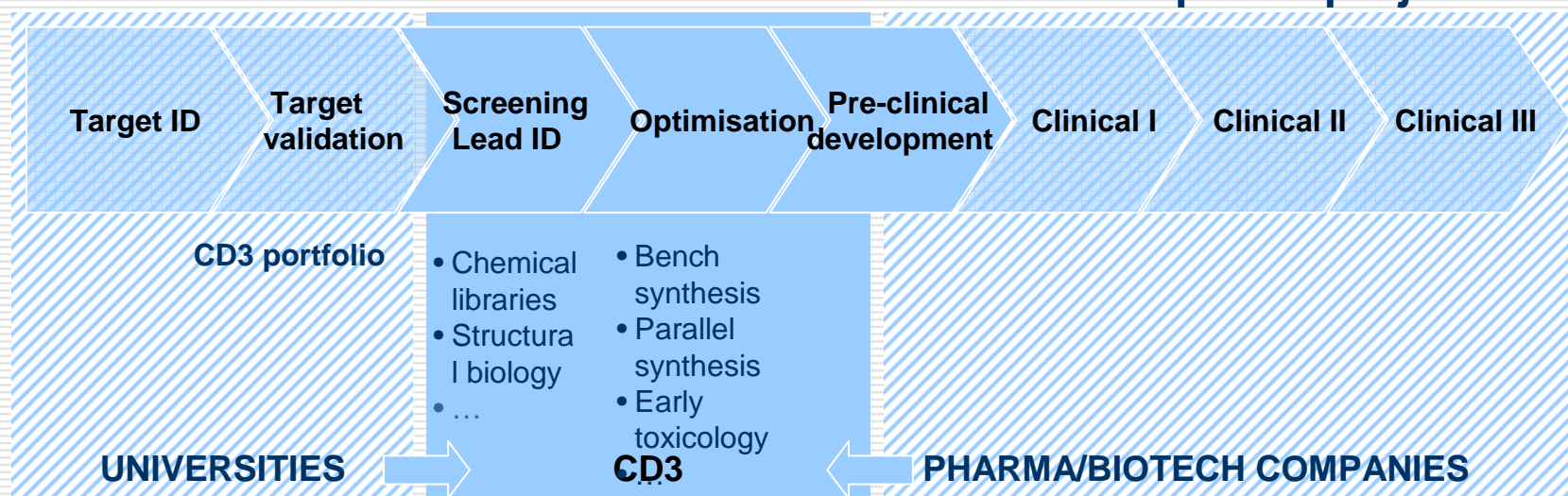
# CD3 (K.U.Leuven)

## Centre for Drug Design and Discovery

CD3 addresses a demand from both ends of the chain

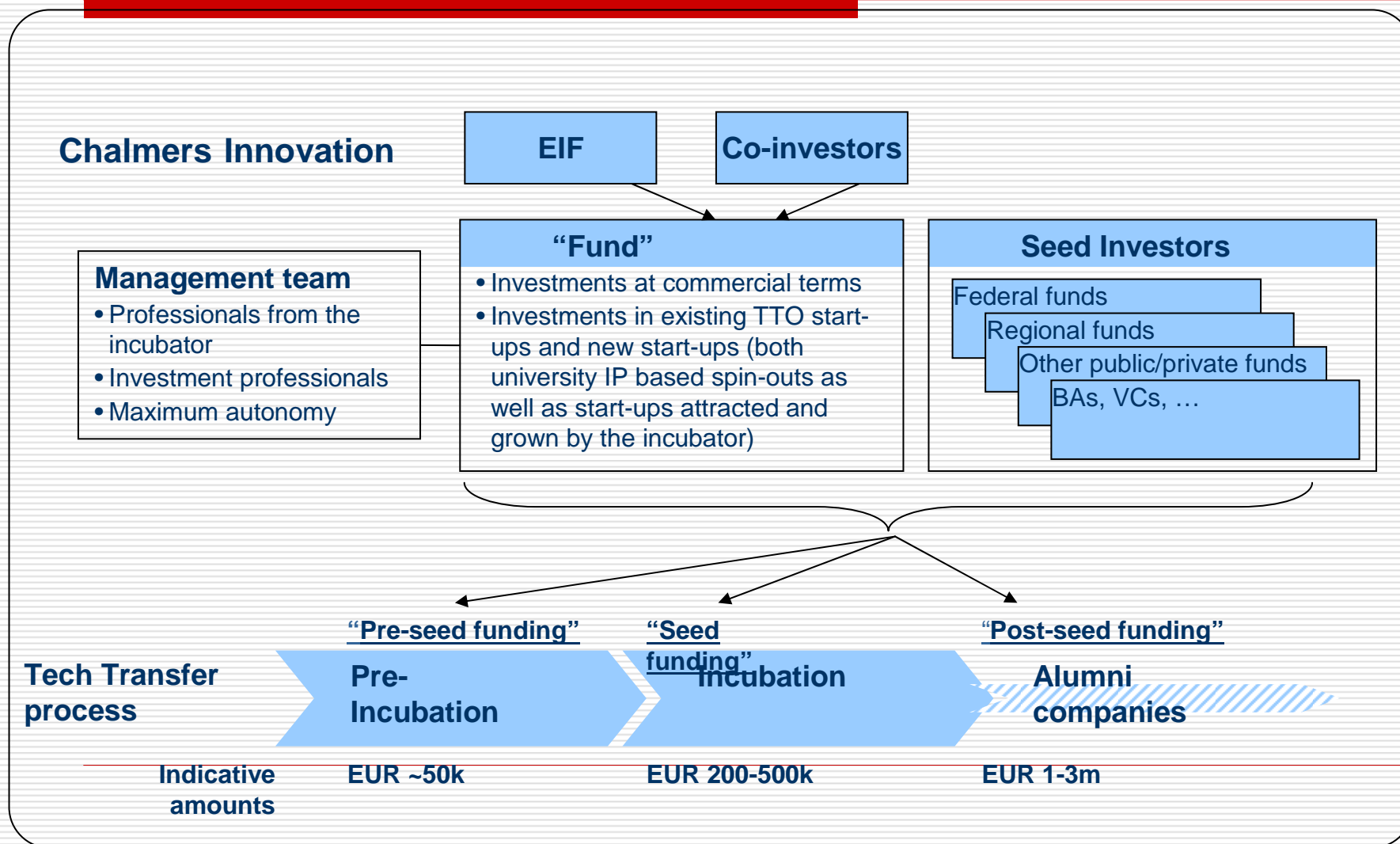
- from Universities: be able to offer more finished drug candidates to the industry
- from the Industry: enrich their pipeline with more proven candidates

- Partnership with university
- Managed by TTO
- Invests in drug development projects

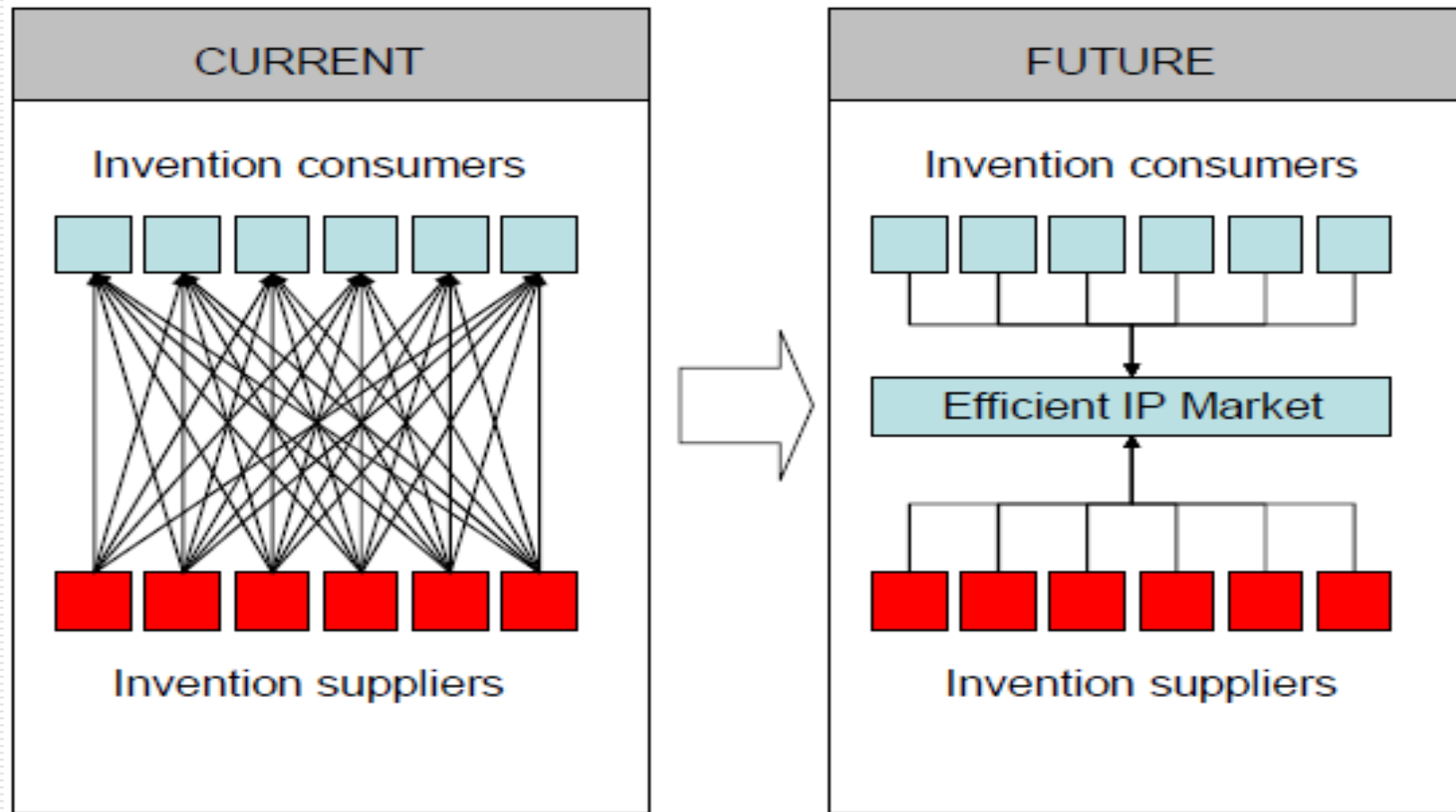


Drug development process steps

# Chalmers Innovation



# II- The IP market challenge



# EXPERT CONSENSUS : IP MARKET FAILURES

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- **Opacity** : difficulty to identify supply and demand of inventions; secrecy of transactions (price, legal conditions)
- **Asymmetry** : dominance of large actors, limited access for SMEs and PRO
- **Uncertainty** : length, cost and complexity of negotiations, no insurance of reliability
- Impossibility to bundle patents
- Economy of litigation and blackmail (troll)

# INNOVATION 2020 PROPOSAL

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**22.** By the end of 2011, working closely with Member States and stakeholders, the Commission will make proposals to **develop a European knowledge market for patents and licensing.**

This should build on Member State experience in **trading platforms** that match supply and demand, **market places to enable financial investments** in intangible assets, and other ideas for breathing new life into neglected intellectual property, such as patent pools and innovation brokering.

# GOALS OF A PATENT MARKET

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- **Give universities and SMEs access to IP monetization and IPR acquisition**
- **Bring solution for patent thicket**
- **Allow bundling of related inventions, through cluster of patents**
- **Open exploitation possibility for “unused patents”**

# HOW?

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- **Match supply and demand**
  - **An active operator** for the benefit of EU SMEs and PROs (involved in governance)
  - Remit: **transparency, financial sustainability**
  - **Standardised, secure, affordable transactions**
  - **Complementary** with different national IP ecosystems
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# CDC INITIATIVES A PATHFINDER

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- **CDC PI** (July 2009) with the objectives to create IP economic infrastructures (patent market, investment fund, technical and financial tools and actors)
- **FRANCE BREVETS** with French State (March 2011)  
100 M€ IP fund, acquire IPR, bundle, commercialize, revenue sharing.  
Already strong IP availability and several agreements signed (research institutes, TTOs...)

# EUROPEAN PATENT LICENSING FACILITY- EPLF

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A PROPOSAL FROM EIF AND CDC, IN THE FRAME OF KTSP TASK FORCE :

- A « **market place** » operated by a **market operator** – as IP exchange need an active process.
- **A set of tools and services** which will give SMEs and PRO access to the market (standardisation, security, transparency)

# 1- Functions of the IP Market Operator

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- **Acquisition** of IPR from PRO, technology clusters and innovative SMEs, large corporate, under license contract or proxy.
- **Supply/research** to answer the needs of IPR for enterprises
- **Prospection and marketing** of the user, and specifically the SMEs.
- **Bundle patents** in technological cluster.
- **License** to industrial users – generally on “non exclusive” basis.
- **Control IPR** legal validity, ownership, encumbrances.
- **Disclose the price** of past transactions to improve the ability to anticipate the value of assets (in the same conditions as in many other markets).

# 1- Economic model of the Market Operator

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- **Low cost of IPR acquisition** for the market (in licensing process, price is paid when revenue are coming)
- **Expenses mostly in quality control, patent bundling, marketing and commercialisation.**
- **Compact team** working with a network of the best experts
- **Royalties/revenues generated by licenses would be shared** between the IP originators (public research, SMEs, corporates) and EPLF on the basis of a revenue-sharing key agreed upon acquisition

The simulation studied a pilot project for 10 to 15 000 patents which correspond to an equity funding of 400 – 500 M€, to cover working capital needs. Model built on careful hypothesis : only 10% of IPR are commercialized).



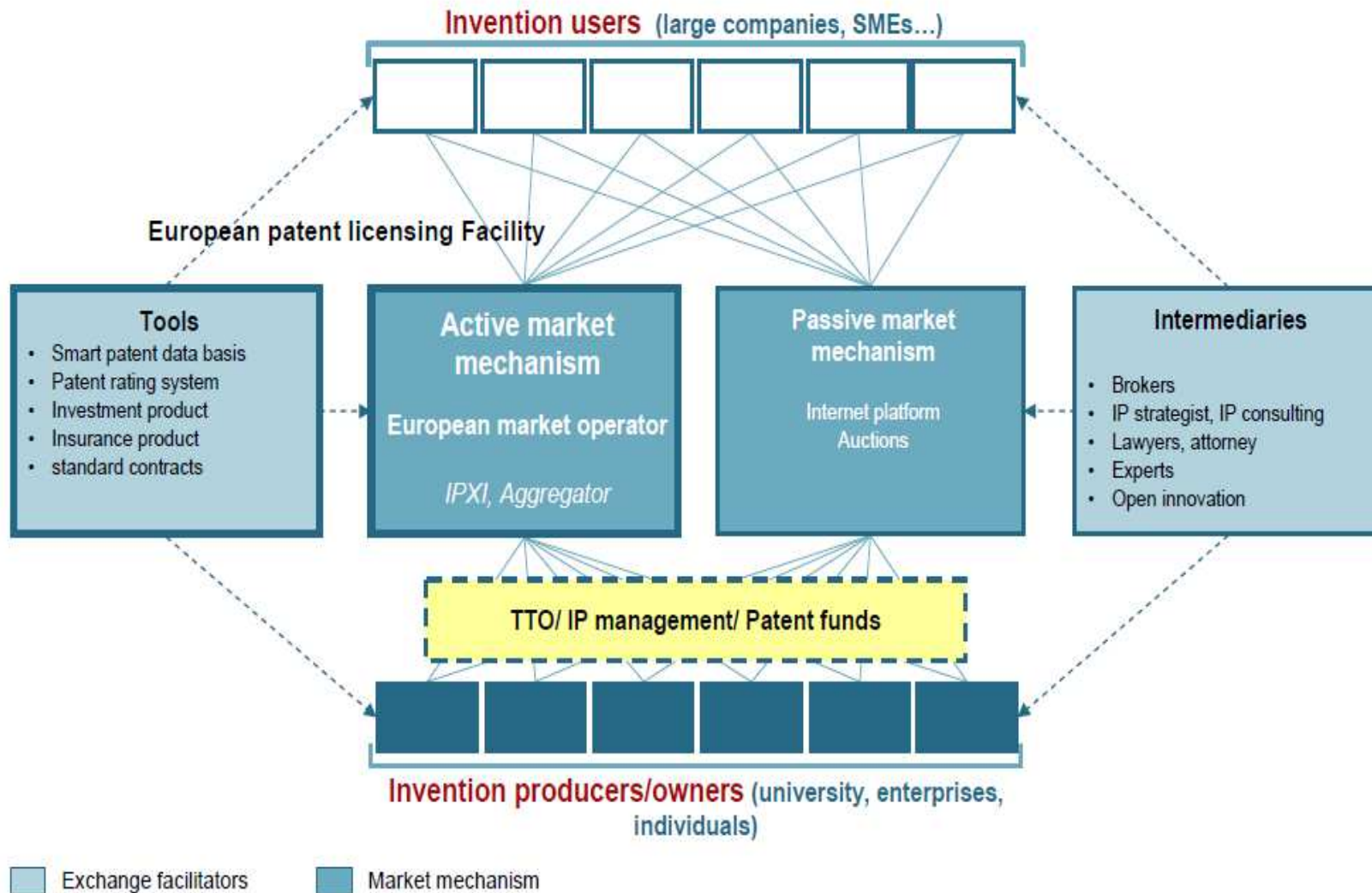
## 2 – A set of tools and services

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To give real access to the market to SMEs and PRO, one have to provide facility instruments, such as :

- ✓ **Smart worldwide data basis** (in front of dominant Thomson Reuter, European actors may grow up)
- ✓ **Transparent information on price and conditions of the transactions** (with the same confidentiality than in other markets)
- ✓ **Patent rating system for decision making** (automated rating system are currently studied and could be experiment soon)
- ✓ **Standard contractual clauses** validated by a college of European lawyers will bring simplification and security.
- ✓ **Insurance products** or mechanism to hedge against the different type of risks (validity, accuracy, litigation...)

# Knowledge economy eco-system



# WHAT EPFL IS NOT

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- ✓ A costly solution to all IP issues
  - ✓ A new subsidy program
  - ✓ An « IP fortress » (instead is a small coordination team to foster EU IP profession)
  - ✓ A public troll
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# EC studies : same diagnostic, same concept proposal ...

## IPR Asset Market

1. Introduction

### Policy recommendation:

2. Key content

The EC should substantially improve the underlying IPR Asset Market in Europe by

3. Findings

\* Motivation  
(chapter 4)

- Creation of one single IPR Asset Market in Europe

\* Structure  
(chapter 5)

- Fostering the creation of IPR valorisation advisory services for SMEs and research institutions

\* Challenges  
(chapter 6)

\* Products  
(chapter 7)

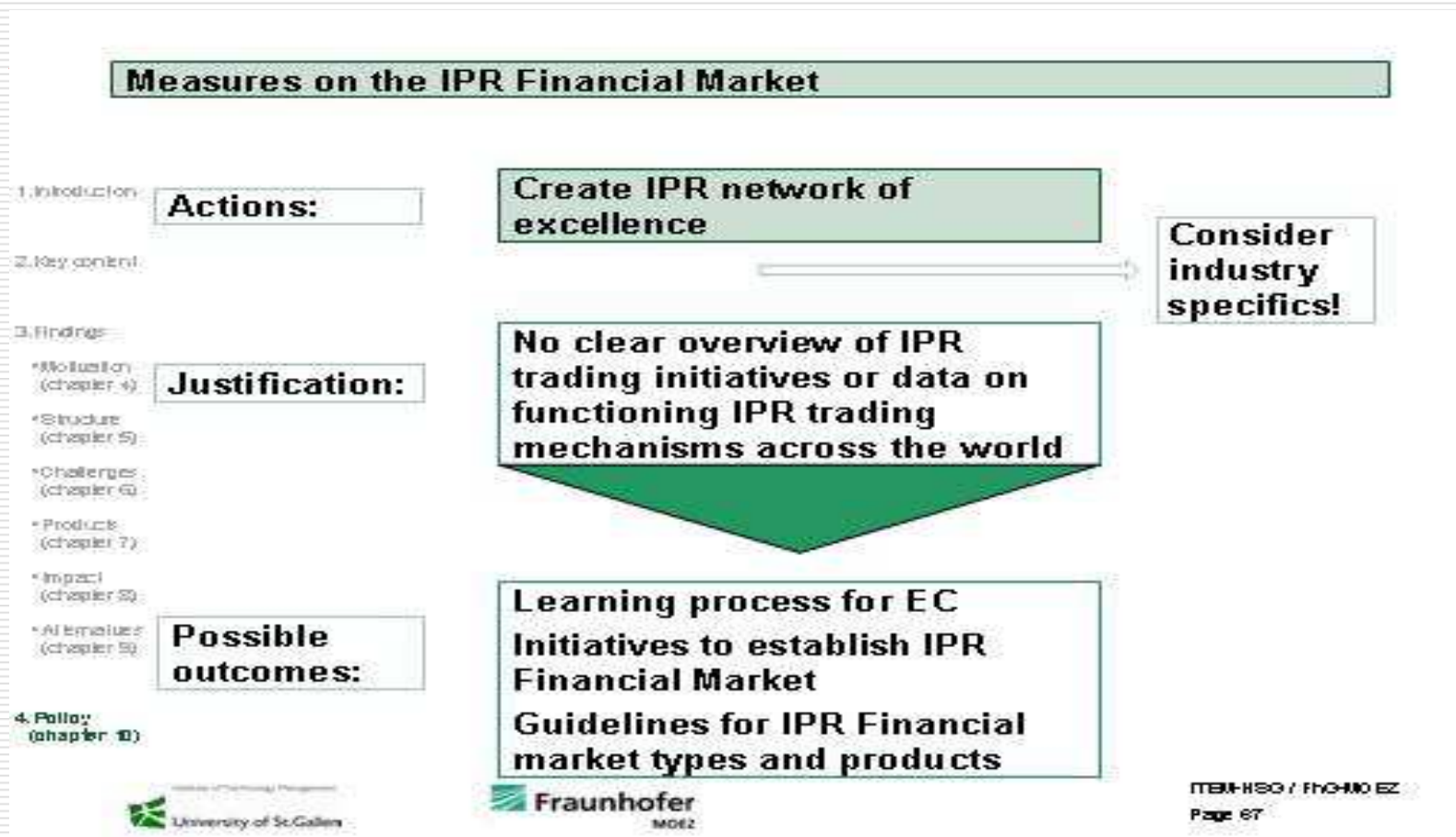
- Promoting licensing as preferred mode of IPR transactions

\* Impact  
(chapter 8)

\* All Elements  
(chapter 9)

4. Policy  
(chapter 10)

# But recommend to wait...



# « Expert » panel : close diagnostic

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“Patent valorisation is subject to **market failures** due to important transaction costs. As compared to large companies, **small and medium sized enterprises (SMEs)** face particular barriers to patent valorisation”

“**Patent funds dedicated to technology commercialisation in a long-term perspective are potentially interesting instruments** to reduce transaction costs through specialisation and economies of scale. They are also well positioned to **aggregate complementary technologies, support the cost** of technology maturation, and **hedge the risks** of commercialisation.”

# But hesitations...

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“The Expert Group however emphasizes **the practical difficulty of finding buyers for patents or bundles of patents within a restricted time-period.**”

“Against this background, the opinion of the Expert Group is that **the European Commission should not support the creation of a European Patent Licensing Fund based on the current proposal**”

“Indeed, the project described in the proposal does not sufficiently demonstrate the viability of the fund’s economic model. In particular, the strategy of fast acquisition of a large patent portfolio across various technology fields does not provide enough guarantees about their successful commercialisation at a later stage. Moreover the proposal does not demonstrate the value added of a financial support by the Commission as compared with private investors.”

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# DISCUSSION ITEMS

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- ✓ Supply and Demand : where will they come from ?
- ✓ Technological field target approach ?
- ✓ Home team and networking efficiency ?
- ✓ Availability of tools and instruments ?
- ✓ Litigation strategy, if any ?
- ✓ Governance structure ?
- ✓ Initial financing
- ✓ Evaluation
- ✓ And many others...