

This ICU is based on an analytic synthesis of about 732 articles which in the world press deal with **Open Innovation and IPR**. This is a follow up of ICU3 (as of November 2008). Through an insight on a reasoned selection of worldwide upcoming innovation drivers, we call attention to where convergent efforts from innovation ‘movers and shakers’ are heading for.

‘Preparing the next stage of the global economy’, so is the structural trend. The goals are: ‘Upgrading innovation and learning through global leadership and global innovation networks’.

• A globalising healthcare is leading the way on the frontier of OI regimes: ‘framework conditions’ become the

ultimate discriminator.

• In the IT, mobile phones’ operating systems are the locus of the OI tricky co-operating deals. How to move away from ‘IP litigation first’?

• Will academia succeed in combining its enduring global social networks with emerging direct tie-ups with local users ?

Key drivers

Matching stakeholders’ shifts

by Pierre Bizard and Alain Quéreux, May 2010

COLLABORATIVE FRAMEWORK CONDITIONS IN HEALTHCARE

- Fighting cancer, the grand challenge: clinical trials on **biomarkers** tearing down the silos
 - A “sacred union” to design advanced, smaller and less expensive Phase III trials that test the right drugs in the right patients through *sustained funding research, supporting and facilitating* inter-agency collaboration and regulatory science, and encouraging the development of *public-private partnerships*.
- At the same time, a global healthcare innovation system implies a tougher competition between “local framework conditions”
 - India (5th, with 98 centres) and China (7th, with 63 centres) now host many MNCs’ R&D centres: in healthcare, for clinical trials only ? with which IP deals? E.g. the Indian Jubilant Organosys strategic R&D tie up with U.S.-based Duke University

INFORMATION TECHNOLOGIES in IP LEGAL THICKET

- In the mobile industry, an historical legal battleground, companies are increasingly playing a twofold game:
 - developing the IP business per se – companies suing one another to fight against shrinking margins
 - and designing a variety of *open source* inspired models – e.g. Eco-patent vs Green Xchange- to (academic) partners.
- Collaborative (universities-companies) research centres continue to develop: *who owns the IP?, the univ. or the researcher? Stability needed.*
 - Changes in Australia IP law raise concerns: if the researchers may own the IP, how could the university assign the IP to one specific *partnering company beforehand?*

SCIENCE-BASED BUSINESS: GETTING CLOSER TO USERS

- The rise of “*innovation clouds*”: co-location and small integrated user-oriented labs to inject “pieces of the cloud” into campuses
 - Combining geographic economies of scale with the diversity and dynamism of small, social collaborative research spaces & networks can help overcome academia’s complicated IP frameworks and large cost overheads

IDEAS FOR CHANGING EUROPE

RESEARCHER’S THINKING

We wanted to tap into the knowledge of the widest possible community and required the know-how to develop effective questions: InnoCentive provides us with this reach and expertise.

This challenge encourages the formation of new teams and new forms of collaboration around a specific topic area. Type 1 diabetes is a good example of a disease that has touched many people at Harvard and elsewhere personally and professionally. As a result, they may have questions or ideas that could help spawn new collaborations and areas for research. People who submit questions don’t need to have the resources, training, or background necessary to answer them. We want questions and ideas that have been unexplored.

Eva Guinan, Director of the Harvard Catalyst Linkages Program

A BUSINESSMAN’S INTEREST

We are not looking to hire lots of researchers but will collaborate with local universities, start-up companies, governments and businesses. It will be based on open innovation rather than closed innovation (or, entirely in-house). In an open innovation model you co-create and co-innovate with partners in industry, universities and government.

Connectors (in-house employees) will connect with people in environment, be it start-ups or global experts. People here can bring the knowledge and create products for emerging markets. For instance, IIT Madras’ computer science department is partnering the innovation hub on how we can leverage cloud computing technologies to improve the way services are delivered for small businesses.

Sophie Vandebroek, Xerox’s global CTO, about the opening of Xerox Innovation Hub in Chennai (India)

GRIPS Intelligence Corner

[2008-2010] - Global review reveals that ‘globalisation drives Open Innovation’

• “The dream is one”: In 2008 the innovation communities were adopting open innovation on a global scale, through new deals. Now, this first industrial organisation stage has come to an end, things are getting serious: collaboration is a vital necessity FOR ALL PLAYERS in an emerging globalised healthcare innovation system while, in the ITs, a dual system is developing, where most efforts are done in a ‘preservation logic’: the academic community is building up its competitive advantage based on its ability to inject pieces of the cloud’ into local user-oriented innovation labs. However, NOT ALL PLAYERS have the innovation capacity to tie-up with complementary skills.

• Policymakers, a radical change: OI brings about a radical change in the function policymakers are responsible for: they become a pivotal component in the implementation loop while decision making is turning more global.

POLICY SUPPORT ON THE MOVE

I-SPY 2 BREAST CANCER CLINICAL TRIAL -

WHAT AN OPEN INNOVATION POLICY LOOKS LIKE

THE BIOMARKER CONSORTIUM’S CLINICAL TRIAL PLATFORM: I-SPY 2

The Biomarkers Consortium is a public-private partnership that includes the U.S. Food and Drug Administration (FDA), the National Institutes of Health (NIH), and major pharmaceutical companies. The consortium, led by the Foundation for the National Institutes of Health (FNIH) has launched the I-SPY 2 clinical trial model that uses genetic or biological markers from individual patients’ tumours to screen promising new treatments, identifying which treatments are most effective in specific types of patients. I-SPY 2 is expected to cost approximately \$26 million over five years. Funding will come from a variety of sources: Safeway - one of the largest food and drug retailers in North America -, is a decisive seed funder; Johnson & Johnson, Genentech and Lilly will also contribute.

HOW I-SPY 2 SPEEDS THE PROCESS OF DISCOVERY AND REDUCES COSTS

I-SPY 2 is based on a scientific collaboration between the National Cancer Institute (NCI), FDA, and about 20 major cancer research centres. It aims at significantly reducing the cost of drug development and speeding the process of screening drugs; as a result, safe and effective new drugs will be brought to market more efficiently.

Currently, it takes over \$1 billion, 12 to 15 years, and thousands of patient volunteers to get a single drug to market. I-SPY 2 was developed to allow the activity of drugs to be assessed much earlier in the research process, potentially enabling drugs to be developed and approved using fewer patients, less time (several years) and fewer resources (hundreds of million dollars).

A FOCUSED CLINICAL TRIAL TACKLING A SOCIETAL CHALLENGE

The I-SPY 2 trial will focus on treatment in the **neoadjuvant therapy setting**, in which chemotherapy is given to patients to reduce tumour size before surgery. All patients will receive the current standard of care and most participants will receive one investigational drug. FNIH received a master Investigational New Drug (IND) approval from the FDA which allows the I-SPY 2 TRIAL team to graduate, drop and add drugs seamlessly throughout the course of the trial without having to stop the trial to write a whole new protocol. “In order to ultimately and successfully reduce the burden due to cancer, a renewed and unified commitment is needed - including researchers and caregivers, government officials and congress, industry and payers, patients and advocates. It is time for a new, unified approach to combating cancer as a whole”.

(Jeff Allen, Executive Director, Friends Of Cancer Research House Energy And Commerce Health Cancer Research, Congressional Testimony)