

Development and Intellectual Property

Case Studies on Cooperation and Exchange Between Research and Development (R&D) Institutions in Developed and Developing Countries

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Overview of Case Studies



Collaborative Research Process

- **Case identification and development**

Karen Hersey, Sissela Engqvist, Marika Källman, Anna Holmberg, Josefin Kalrgrund

- **Case research – 24 graduate students**


Agyat Suri, Alda Hanjalic, Alexander Sologub, Annelie Viksten, Carin Nylander, Camilla Gimskog, Carolina Helgesson, Caroline Egeland, Daniel Gustavsson, Dushyant Chauhan, Emma Wikström, Fernando Lopez, Filip Eriksson, Gustav Johansson, Hanna Sonning, Johan Corell, Johanna Bjarsch Follin, Jonathan Holmén, Linn Holmström, Lucie Mecirova, Marika Källman, Mimmi Bjöersdorff, Sofia Arveteg, Therese Matshede



Case Studies – Sample Selection*


| Criteria | Range |
|-----------------------|---|
| Geography | Worldwide coverage |
| Technical Field | Welfare technology focus |
| Type of IPRs | Primarily patents |
| Type of Actors | Primarily public actors |
| Complexity | From ad hoc projects to structured programs |
| Direction of exchange | Both North-South and South-North |

* Cases chosen primarily through network relationships (i.e. not random)



Case Studies – Overview (1-4)

| Case | Developing Countries | Developed Countries | Context |
|---------------------------------|---|---------------------------|--|
| Gastric Cancer Research Project | Nicaragua | Canada, Sweden, US, Italy | Informal international research collaboration operating without an explicit IP policy |
| Once-a-Day HIV Medicine Project | Southern Africa, South-East Asia, South America | US | IP on a royalty basis to regulate openness and facilitate access on a global scale |
| Phenolic Extract Project | Costa Rica | Spain | R&D collaboration originating from a developing country focused on IP commercialization in developed countries |
| Strawberry Licensing Program | Turkey | US | IP (and UPOV) to facilitate royalty-based licensing |



Case Studies – Overview (5-8)

| Case | Developing Countries | Developed Countries | Context |
|--------------------------------------|--|------------------------|---|
| Late Blight Resistant Potato Project | India, Bangladesh, Indonesia | US | Government funded, international R&D based on knowhow without IPR |
| Rubber Nano Project | South Africa | Italy | R&D collaboration originating from a developing country focused on commercialization in developed countries |
| Biowaste4SP | Turkey, Malaysia, Ghana, South Africa, Egypt, Morocco, Kenya | Sweden, Denmark, Italy | Large formal, R&D consortium involving public and private actors required to specify BG/FG knowledge |
| Infant Diarrhea Program | Nicaragua | Sweden | Long-term, formal R&D collaboration to develop local capacity and solutions |



2

Results & Conclusions



Value Models and the Role of IPRs

Cases

Gastric Cancer Research Project

Once-a-Day HIV Medicine Project

Phenolic Extract Project

Strawberry Licensing Program

Late Blight Resistant Potato Project

Rubber Nano Project

Biowaste4SP

Infant Diarrhea Program

1. Publication of knowledge for utilization in the public sphere



Value Models and the Role of IPRs

Cases

Gastric Cancer Research Project

Once-a-Day HIV Medicine Project

Phenolic Extract Project

Strawberry Licensing Program

Late Blight Resistant Potato Project

Rubber Nano Project

Biowaste4SP

Infant Diarrhea Program

1. Publication of knowledge for utilization in the public sphere
2. Proprietary control of knowledge to facilitate utilization through commercial markets primarily for humanitarian purposes



Value Models and the Role of IPRs

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Infant Diarrhea Program

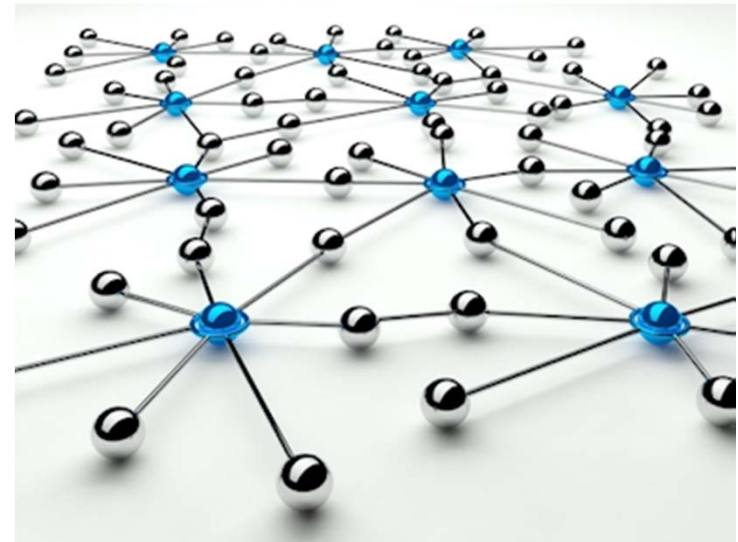
1. Publication of knowledge for utilization in the public sphere
2. Proprietary control of knowledge to facilitate utilization through commercial markets primarily for humanitarian purposes
3. Proprietary control of knowledge for the purpose of commercial licensing and venture creation

Re-Defining Intellectual Property

From blocking to building block



Blocking imitation
of physical products



Regulate openness and
facilitate access



From IPR to Intellectual Asset Management

| Case | Knowledge Assets | IPRs | Role of IPRs |
|---------------------------------|---|---------------------------------------|---|
| Gastric Cancer Research Project | Lab/Sample Collection Techniques, Research Data/Databases | Copyright (implicit in research data) | No formal contractual role in collaboration |
| Once-a-Day HIV Medicine Project | Support with regulatory process, manufacturing process and quality control | Patents, trade secrets | To regulate openness and facilitate access |
| Strawberry Licensing Program | Strawberry cultivar with specific genetic traits together with knowledge on breeding, cultivation and commercialization | Patents, Plant Breeder's Rights | To facilitate royalty-based licensing |

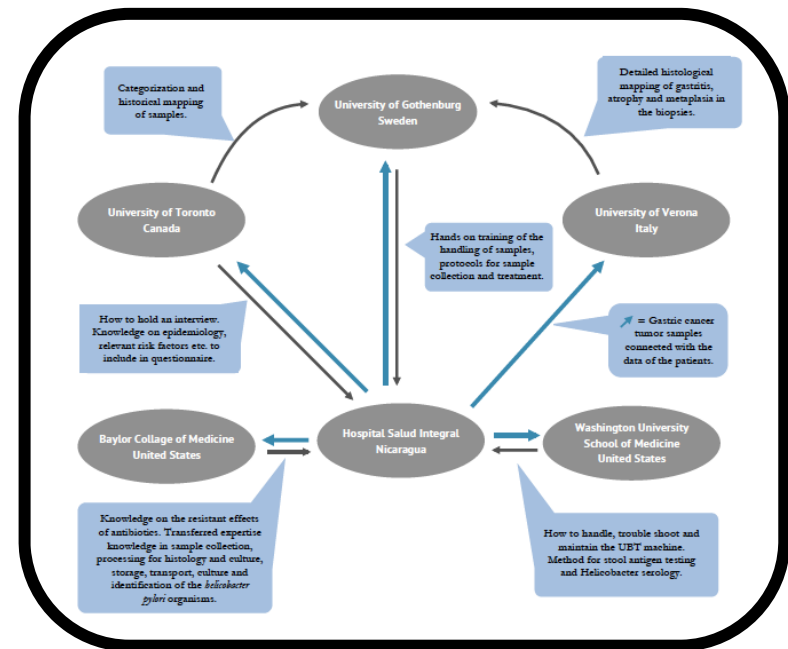
From IPR to Intellectual Asset Management

Case

Gastric Cancer
Research Project

Knowledge Assets

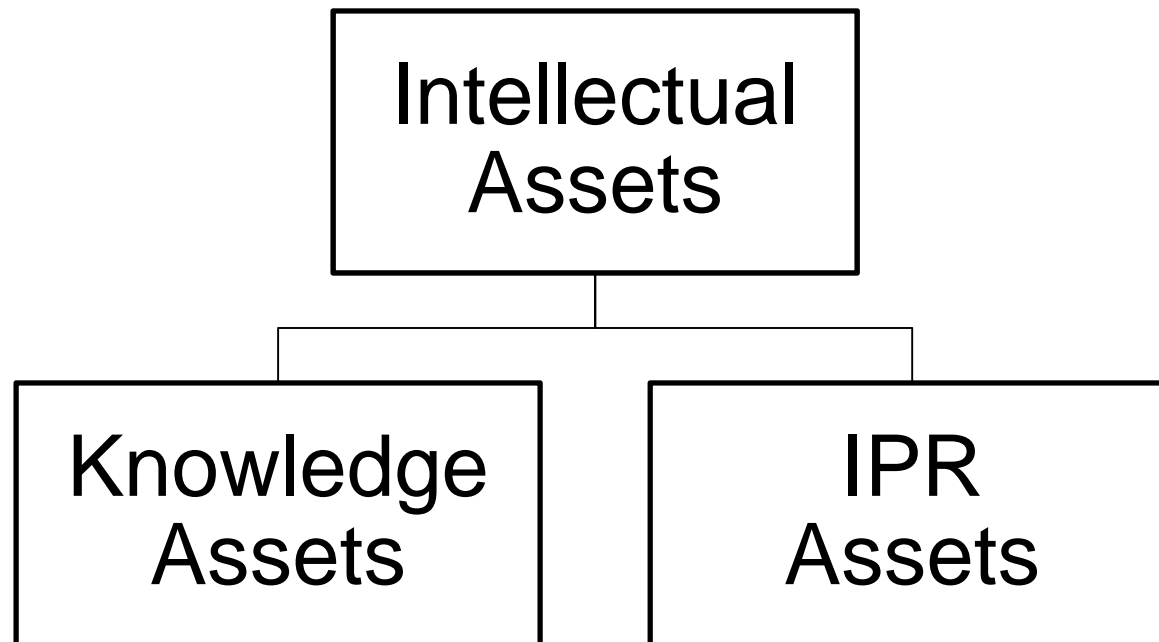
Lab/Sample
Collection Techniques,
Research
Data/Databases



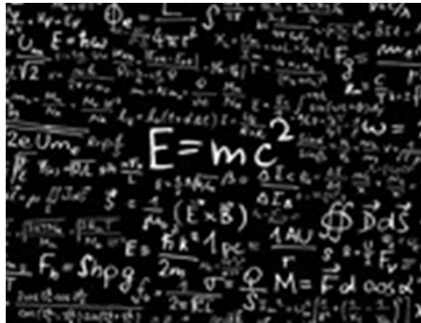
Knowledge transactions



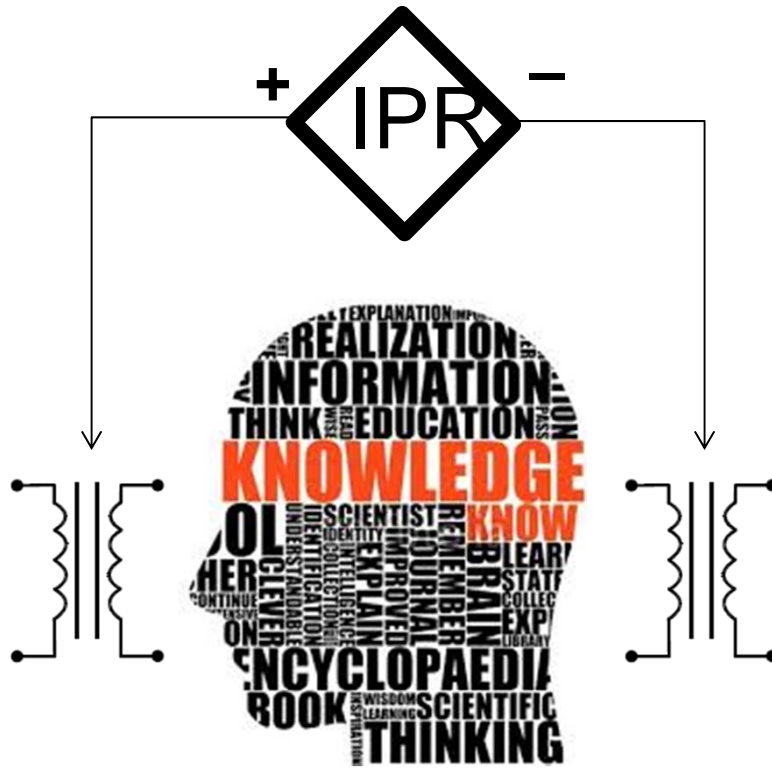
IAM – managing knowledge and control



IPRs – to facilitate wealth and welfare



Information

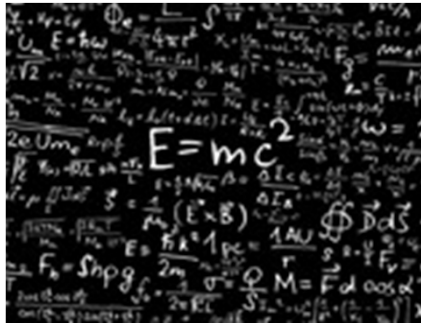
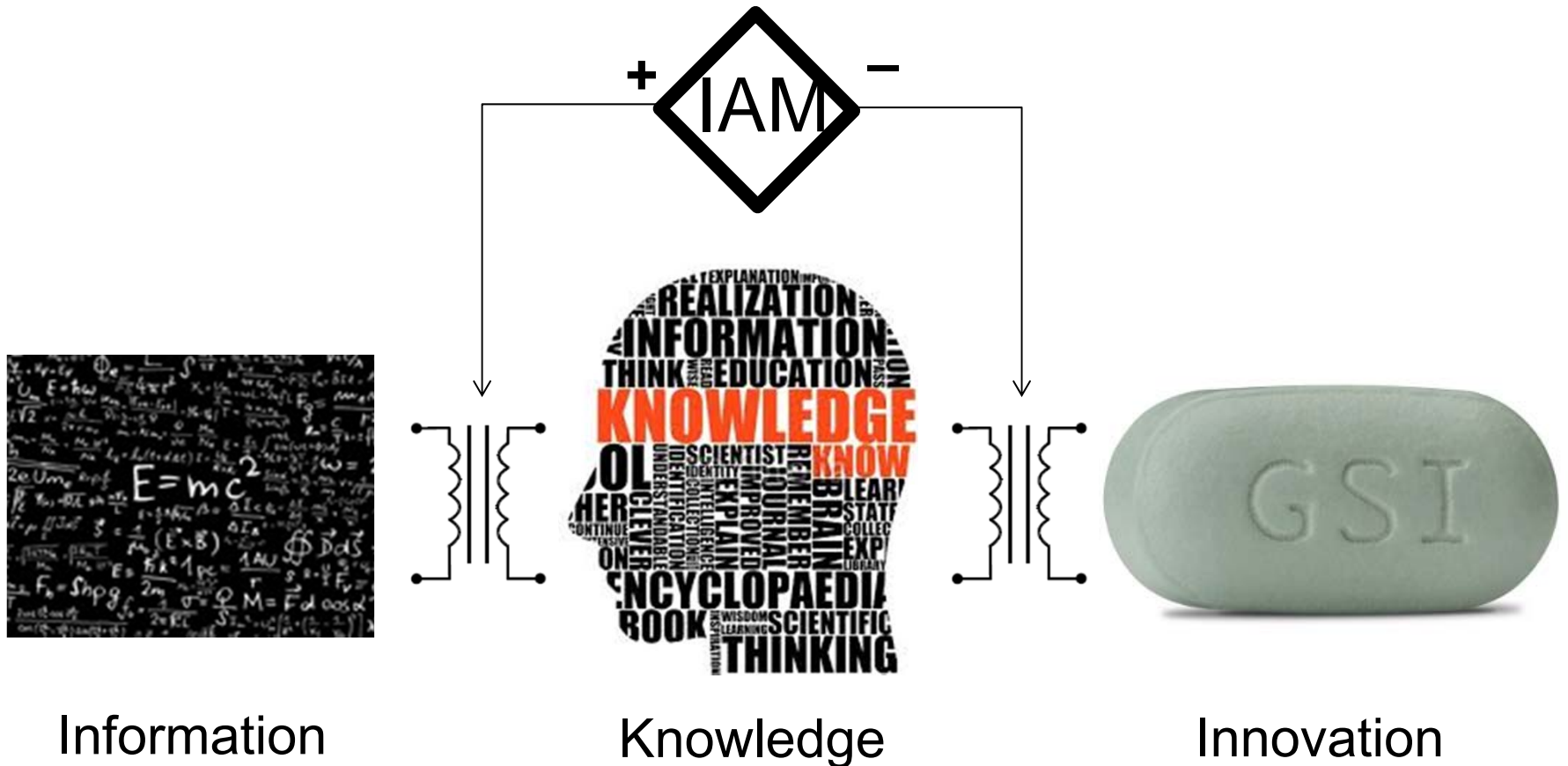


Knowledge



Innovation

IAM – focus on knowhow and capabilities



Information



Knowledge



Innovation

KNOWLEDGE MANAGEMENT PLATFORM TO PROMOTE UTILIZATION

IAM-
FRAMEWORK



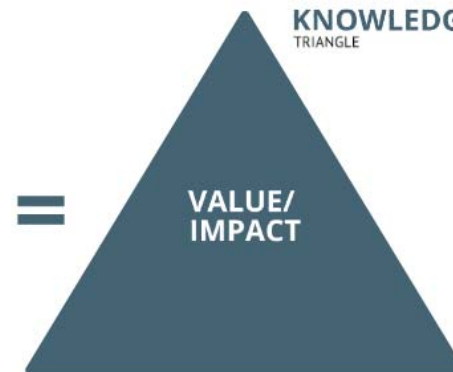
...to support strategic and operational activities in academic environments

UNIVERSITY
DEVELOPMENT CIRCLE



...to support development of the university's utilization capabilities

KNOWLEDGE
TRIANGLE



...to generate societal value through the development of complete academic environments



***In the knowledge economy,
we are all developing countries***

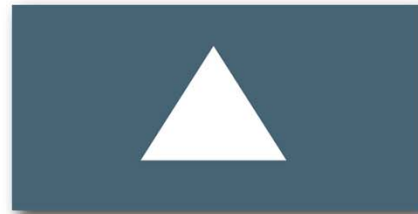
Questions?





UTILIZATION LOGICS

FOUR MODELS OF VALUE CREATION



Knowledge is available for the public



Knowledge is available and applicable for specific stakeholders



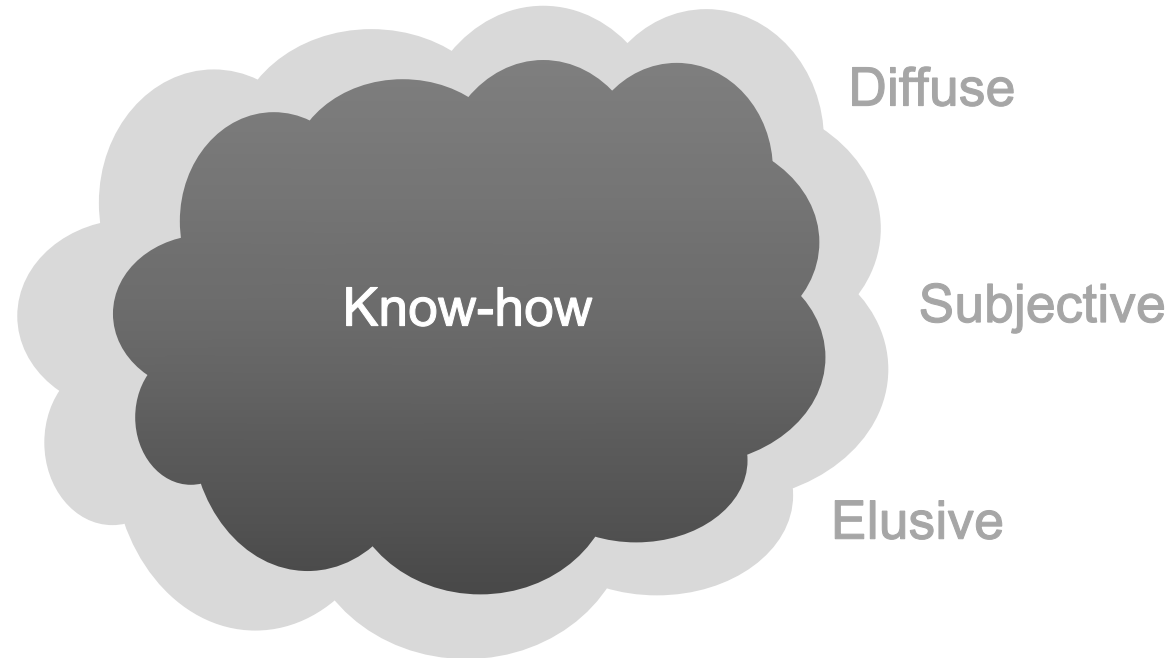
Knowledge is available as products and knowledge organizations



Knowledge is available in open contractual structures / networks



Knowledge and intangibles are inherently difficult to manage



Capturing valuable technology and knowledge as intellectual assets

