

Climbing up the Value Chain by Investing in Joint Learning from Global Collaboration

Mark Dutz, PREM
OECD KBC Global Value Chains Session
Paris, February 14, 2013



Broaden KBC to include “**connectivity-related**” economic competencies (connecting & collaborating with GVCs to capture & use *new-to-firm* technologies) (vs absorption-related competencies that facilitate better use & value of *known-to-firm* technol.)

I. India: Biotech Learning from Global Collaboration

- significant investment in Global Product Development Consortia

➔ **Structured research protocols** for more effective commercialization

II. Chile: Natural Resource Exports driven by Collaboration-related KBC

- significant investment in connectivity & collaborative learning

➔ Positive association with **spectacular export growth** in wine industry

I.1 India Biotech: Investment in Global Consortia

Government-supported investment in collaboration - learning b/w Indian and foreign firms, public research organizations, universities... including:

ISCB (Indo-Swiss Collaboration in Biotech), since 1974 +\$33 mn public investment

- agricultural biotech products (disease-resistant wheat, pest-resistant pulses)
- technology licensing support and adaptation to local context beyond India

VAP (Indo-US Vaccine Action Program), since 1987 +\$20 mn public investment

- joint projects for new & better vaccines for major diseases in India & others
- ex. Bharat Biotech rotavirus vaccine PDP in phase III trials (incl. IISc Bangalore, AIIMS, US NIH, Stanford, Atlanta CDC, PATH) + new rabies and typhoid vaccines manufactured/ marketed in India

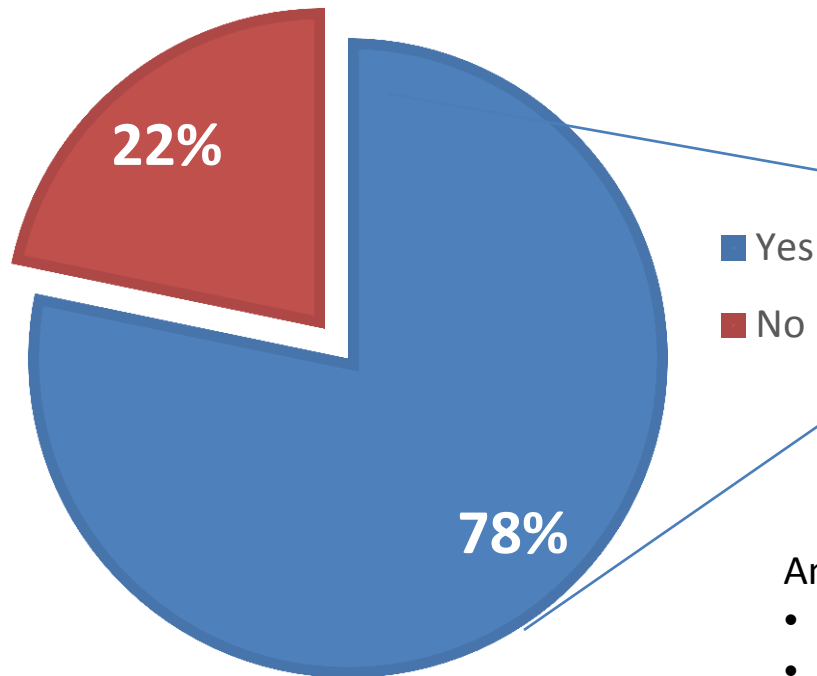
Welcome Trust R&D for Affordable Healthcare, since 2010 +£45 mn public inv.

- translational research projects incl. therapeutics, vaccines, diagnostics
- ex. L.V. Prasad Eye Institute and Sheffield University for stem-cell based therapy for chemical or burn-damaged cornea

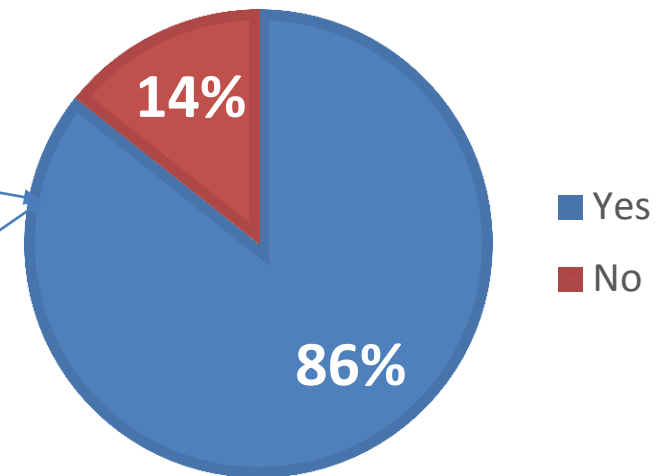
Other: Australia, Canada, Denmark, EU, Finland, Germany, Japan, Norway, Sweden

I.2 India: Broad Use of Structured Research Protocols

BIOTECH FIRMS THAT COLLABORATE WITH OTHER FIRMS/ACADEMIA (RESPONDENTS: 46 FIRMS)



MONITORING FRAMEWORKS FOR COLLABORATION (OF 36 COLLABORATORS)



- Among others, investments in learning how to do:
- common **data sharing** processes
 - commercializ.-driven **milestone-based incentives**
 - monitoring via **joint review** processes
 - escalation mechanisms for **dispute resolution**

Source: Dutz and Vijayaraghavan (2013)

II.1 Chile Wine: Connectivity Investments 05-10 (USD 2012)

Government-supported investments in connectivity & collaboration - learning from local & foreign firms, public research organizations, universities... including:

Global connectivity: \$5.1 mn (InnovaChile; 40% private on ave exc PTIs), of which

- 34 “Misiones Tecnológicas” (study tours, e.g. to Bordeaux, Rioja)
- 15 “Consultorias Especializadas” (foreign specialized consultancies)
- 3 “Programas Territoriales Integrados” (diagnoses of regional deficiencies coupled with consultancies from foreign experts, 100% CORFO-financed)

Market research: \$0.4 mn (InnovaChile; 40% private)

- 4 “Programas de prospección e investigación de mercados” (carried out by the wine associations and jointly shared with all members)

Marketing: \$11.5 mn (CORFO; 47% private on ave), of which

- 21 “PROFOs” (strengthening jt marketing capabilities of collaborative SMEs)
- 18 collaborative local wine tourism regional development initiatives
- 4 collaborative export regional development initiatives (e.g. “for Asia”)

R&D: \$41.8 mn (Innova, FIA, FONDECYT, FONTEC..; 31% private on ave.), of which

- most are joint projects between universities or private res. cos. & groups of firms
- 2 are explicitly “Consortios Tecnológicos Empresariales” (collaborative)

+ **training & biz process improvement** investments to strengthen absorptive capacity
(\$15.3 mn) (\$1.1 mn)

II.2 KBC and Wine Exports – not just duplication

