

Diaspora S&T Talent as Change Agent at Home: Observations of a 'Thinking Doer'

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Motivation: diaspora first movers' impact

In 1997, with funding from the <u>Ireland Funds</u> and with the endorsement of Nelson Mandela, Padriag O' Malley (a professor in the US of Irish origin) brought negotiators from **all** the warring factions of the Northern Ireland to South Africa to learn from a successful local experience.

A week-long session with the negotiators from **all** the South African parties helped to start an open discussion between the Northern Ireland factions.

This trip and the informal dialogue that followed were a key contributing factor to the Northern Ireland peace agreement in 1998.



Why is the potential of diasporas so high?

Archimedean lever hypothesis

- Vested interests as the main problem of development (local landlords, subsidy recipients, universities, trade unions, etc.).
- Agents who know the system well, yet not part of the entrenched interests are few and far between: attractiveness of highly skilled diasporas and returning migrants.
- Diaspora (individuals or organizations) (may help) articulate entry points and microreforms which (may) grow and expand.



- Emergence of the 'missing middle": disappearance of the demand for mid-level skills because of AMT
- Talent: ability to define problems and connect to others to solve it
- Open migration chains (sequences of educational and job opportunities) replace 'job ladders'
- Countries with significant creative class but bad business environment (*BRAHMS*: Brazil, Russia, Argentina, Hungary, South Africa) are on the crossroads: either create exclaves (or enclaves) that utilize domestic talent or witness a spike in 'brain drain"



Twin perspective on action:

- Analysis of a 'doing thinker': an academic with a zest for action. For him, the main questions of action are 'why' and 'what' to do.
- View of 'thinking doer': an action-oriented practitioner capable of self-reflection. For him, the main question of action is 'how to': institutional design of the process
- Hence, twin evidence:
- Empirical research (funded by MacArthur Foundation, DFID and World Bank)
- Lead of about 25 projects to transform innovation systems in about 25 developing economies (Argentina, Mexico, India, China, Tanzania etc.)



Key messages

- Global mobility of talent as global phenomenon
- 'It is not the numbers game': do not count diasporas or returnees
- Return of talent as a response, not a trigger of home country development
- Heterogeneity: matching positive variations both on foreign talent and on receiving institutions sides
- High resolution programs: programs that are capable of matching those positive variations

 that can discern and manage this twin heterogeneity



Top skilled emigration countries

Stock of tertiary-educated foreign-born residents in OECD economies, thousands (2010 this er of

Rank	Country of birth	expatriates	
1	India		2,080
2	China		1,655
3	Philippines		1,417
4	Take a guess		1,384
5	Germany		1,168
	Republic of Korea		637
	USA		590
	Vietnam		524
	Japan		371
	Brazil		267

Source: DIOC 2010/11 http://www.oecd.org/els/mig/dioc.htm



Skilled migration: Benchmarking MARS

Stock of tertiary-educated foreign-born residents in OECD economies, thousands (2010-11)

Rank	Country of birth	Number of expatriates	
1	India	2,080	
2	China	1,655	
3	Philippines	1,417	
4	(Take a guess)	1,384	
6	Mexico	867	
	Russian Federation	660	
	Republic of Korea	637	
	USA	590	
	Argentina	223	
	Kazakhstan	134	

Source: DIOC 2010/11 http://www.oecd.org/els/mig/dioc.htm



Professional Diaspora as a Window to the World:

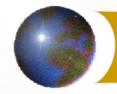
- Weakness of domestic institutions is the single most important binding constraints for productive diaspora engagement everywhere (a paradox)
- Project (a joint undertaking with domestic institutions) as the key unit of engagement
- Diaspora members who engage in joint project with home countries see domestic institutions more favorably than those who just read about them This is the evidence from surveys in MARS (Mexico, Argentina, Russia, South Korea)

A quiz for the audience: pls. interpret this paradox

- This project agenda is humble and ambitious at the same time: it is about incremental engagement "a courtship"
- Disproportional importance of 'high achievers' on both sides: personalities with high credibility and professional standing who could share their status with home

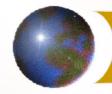
Diaspora Pérspective: "Courtship Before Marriage"

- "Courtship": start small, with joint projects and see how it goes
- Eventual return ('marriage') as a possible outcome, but not a starting point
- Professional conditions and quality of life at home are more important than monetary remuneration
- Diversity of motivation to engage: importance of gaining recognition at home, even for world stars



Example: Emergence of innovation clusters and venture capital industry in Taiwan

- Massive foreign education and brain drain in the 1960's and 70's.
- Local culture of risk-taking and business experimentation at that time virtually non-existing.
- Silicon Valley as a role model: successful high-tech entrepreneurs from diaspora
- Four stages in the development of venture capital industry and innovation clusters



Taiwan: Four stages in institutional co-development

Stage 0: Establishing a platform for joint action

'High achievers' from both the diaspora and the organizational periphery of the government decide to promote venture capital industry.

Stage 1: Micro-level – Pilot action

First venture capital fund is established. Diaspora members relocate to Taiwan to manage the fund.

Stage 2: Mezzo-level: Critical mass effect

Demonstration effect of the success triggers establishment of other funds.

Stage 3: National Level: Institutional transformation

Emergence of globally competitive innovation clusters. Massive return of talent.

SNOWBALLING

- Policy adapts to more advitech environment
- New business models to adapt to competition
- · Expand to China

ENTREPRENEURSHIP

- New firm fdn; new layer of mngrial talent
- · Xfer of ownership model
- Diversification of PC & IC industries
- · Learning-by-doing and upgrading
- Expansion of x-regi collaboration

INFLUX

- Invest in expanding universities & training
- · VC initiated, expertise xfer
- . Stock market takes off
- . End of martial law
- · Recession in SV
- Massive reversal of

Source: Annalee Saxenian, University of California, Berkeley

FOREIGN EDUCATION

- To US for grad degrees in eng & computer science
- Not necessarily elite schools - wherever will accept and fund

BRAIN DRAIN

- Stay in US in big R&D labs or electronics
- Move into Silicon Valley, big companies, job hop
- Hit glass ceiling, develop shared identities, associations
- Become entrepreneurs
- Initial successes become role models, self-reproducing

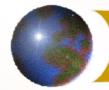
EXPATS BEGIN TO RETURN

- Policy advising for top govn't officials, influence policy
- · Govn't xfer of US semicon tech
- · Early returnees start tech co's
- Early cloning and retailing
- . Early contracts from Chinese in SV

Heterogeneity of diaspora professionals: common types

- High achiever: part of the elite. Has high status and credibility, and can share them from the home country
- Successful mid-carrier professional: looks for new career opportunities in a home country
- Young aspiring talent: diverse motivation, higher appetite for risk taking. E.g.: post doc
- Frustrated professional: can search for opportunities in the home country because of failures or stalled career development elsewhere

Each of them requires a specific strategy of engagement



Do countries need large numbers of Diaspora talent to generate Taiwan's type dynamics?

NO

- Relatively small diasporas of skilled individuals can make a lot of difference.
- But the virtuous cycle is likely to be limited to micro-level (Stage 1) or mezzo-level (Stage 2).
- Key question is scaling-up of changes: positive examples can get stuck on stages 1 or 2.
- Search networks that link exceptions from the public sector, private sector and the diaspora are crucial for such scaling-up.

Example:

Chile Global and its initiative to promote venture capital in Chile



Two views of development constraints

General: bad investment climate and bad governance in general.

The diaspora surveys revealed a lot of complaints about those.

Contextual: in the context of implementation of a specific project.

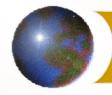
Success or promise stories: about search for solutions to relax the specific constraints.

Diaspora members engaged in projects commonly view local business environment more favorably than those who are not.

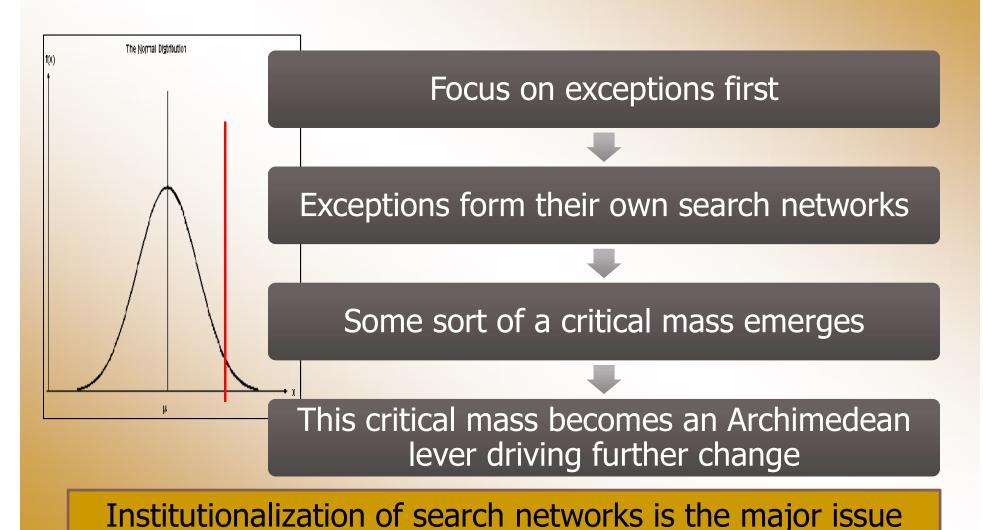


Revealing the heterogeneity of Russian and Argentine institutions

- General investment climate is and seen as poor.
- Diverse portfolio of private innovation projects: diaspora as a part of a new private sector. Often outside the capitals.
- New public sector: senior officials (deputy minister level) and their ambitious portfolio of projects and programs.
- Exclave agencies (public sector 'islands'), such as RusVenture, which work with diaspora high achievers to link the emerging new private and public sectors.



How does institutional development occur?





Reliance on Heterogeneity

Heterogeneity of diasporas of the highly skilled

Heterogeneity of home institutions

Institutional development of home countries



Comparative Analysis

	Mexico	Argentina	Russia	South Korea
Start up dynamics	Relatively weak: 'the big neighbor curse'	Visible but fragile diversity of regional dynamics	Diversity of regional innovation proto-clusters	Relatively weak: 'the big chaebols curse'
Public sector 'islands'	Strong in every ministry but 'coordination curse': Attention span is short	Very strong but very fragile	Betting on sub- national level (with support from islands at the federal level)	Public sector is relatively uniform and effective
Science and Higher education islands	Weak, despite significant investment	Binding constraint: elite/pragm atic sector is weak	Elite segment remains strong but declining	Elite segment is strong (KAIST, POSCO university)

Do Not:

- Try to lure them back (but there are exceptions: e.g. certain postdocs)
- Make (unreasonable) promises: credibility of the state as the key issue
- "Pick the winner": create special conditions for the diaspora (a general welcoming environment is more important then special rewards)
- Focus exclusively on certain diaspora segments: just on 'stars' or scientists (professional diaspora is very heterogeneous)



Extend, scale-up and institutionalize existing collaborative projects, rather than create new ones

- A need for competitive transparent grant schemes to support such collaboration
- Make professional diaspora a stakeholder (a part of, a mentor) of existing science, education programs and initiatives of Brazilian development organizations (институты развития) rather than create special diaspora programs or initiatives
- For instance, mobilize diaspora to participate in the evaluation of the research done in Russia -- participate in the panels that do grant allocations; participate in editorial boards for top Brazilian journals, in selection of candidates to fill top academic positions in Russia, etc.
- A lot of this happening already. But 1) this practice should be expanded and institutionalized; and 2) Some evaluation of the emerging practices would be useful -- what works, what not? existing barriers?

Share and celebrate success stories of collaboration

Focus on Exclaves' - Institutional Extensions of World Economy within the Country

- Exclaves (e.g. elite universities in India, SEZs in China) are platforms for productive diaspora engagement everywhere: a natural win-win
- Brazil is no exception: dynamic universities like University of CAMPINAS are more receptive to diaspora talent
- Internal ventures (exclaves) can exist in (almost) any organization
- They are Archimedean levers of positive change

How can government programs support growth of such exclaves through diaspora engagement?



The majority of governmental initiatives to create brain circulation networks have been dissappointing

Lack of tangible actions: No demonstration effect

Lots of initial enthusiasm that dissipates quickly



Towards a strategy: Humble and ambitious...

Humble: Focus on win-win transactions



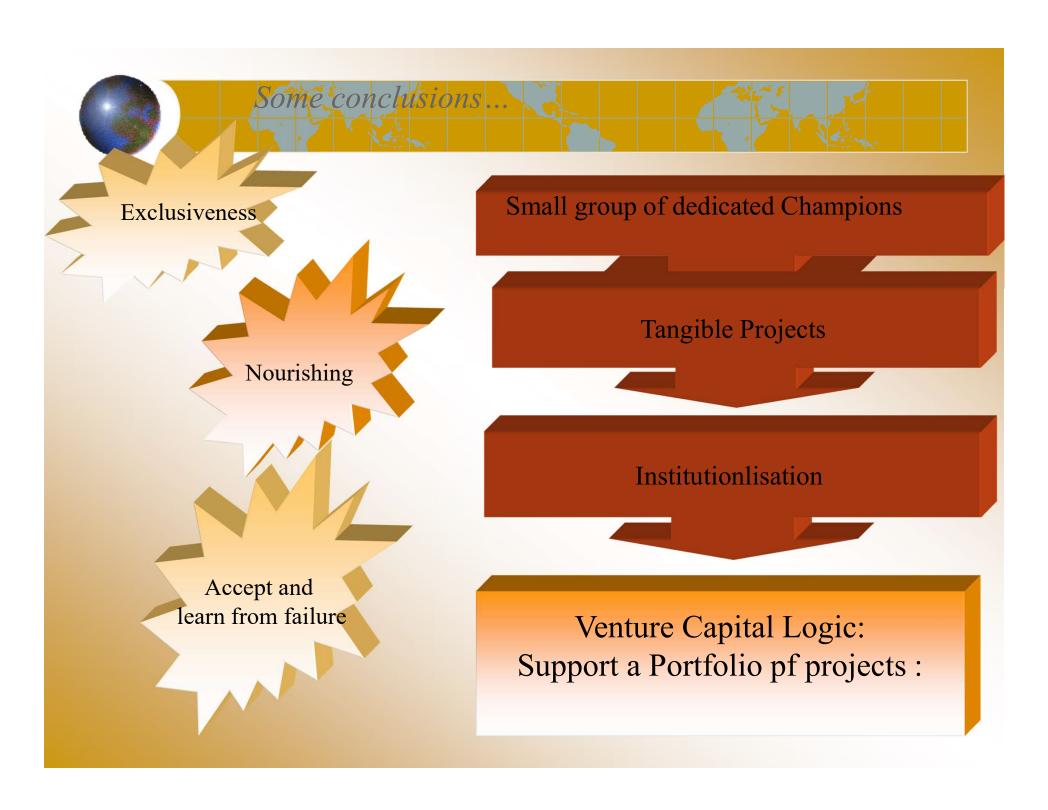
Tangible projects

Ambitious: Vision the collaborative relationship in the long rung



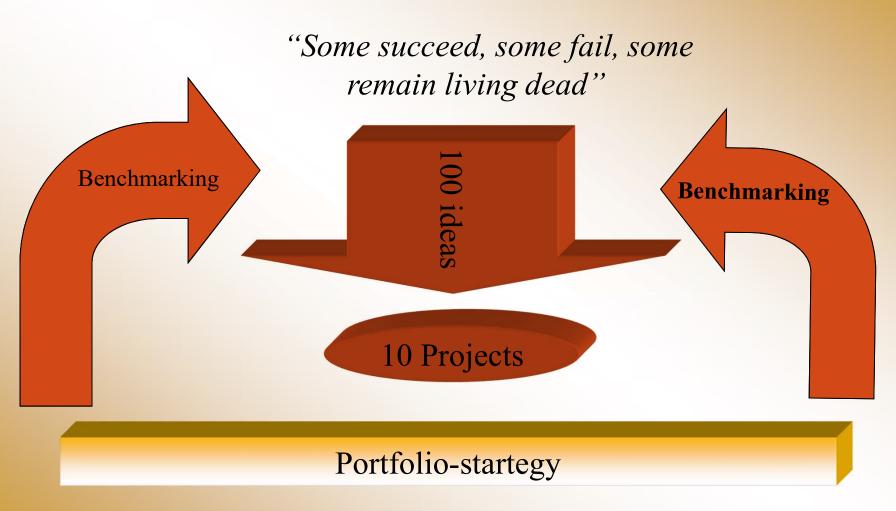
Institutionalization

Framework for information sharing, lessons-learning and diversity of initiatives





Venture capital logic of diaspora engagement: Project-Portfolio



Matching Dynamic Exceptions of both sides

Heterogeneity of diasporas of the highly skilled

Heterogeneity of home institutions

How does the matching happen in Brazil?



Key common features of diaspora engagement:

- **1. Binding constraint:** it is the strength and flexibility of domestic institutions, not brilliance, size and resources of diasporas which are a key factor of diaspora impact.
- In the best of circumstances, diaspora becomes a part of the home country – participating in everyday practices.
- **3. Success stories** and role models are crucial.
- **4. Guiding serendipity** as an elusive trade-off between bottom-up creativity and an imperative to manage it.



Thank You YKuznetsov@Worldbank.org YKuznetsov1@gmail.com