

ENERGY TRANSITIONS, TRADE, AND PST/ KIBS SERVICES

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Outline: a rapid overview

- What are PST/ KIBS?
 - They provide expert-based solutions to business problems
- Why are they important?
 - Organisations face new problems where they need new knowledge and expertise
 - Sometimes external inputs provide fresh insight – or add credibility and legitimacy (as in EIA)
 - Growing role in trade and investment
- How do they work?
- What do they need?
- How can they be made more effective?

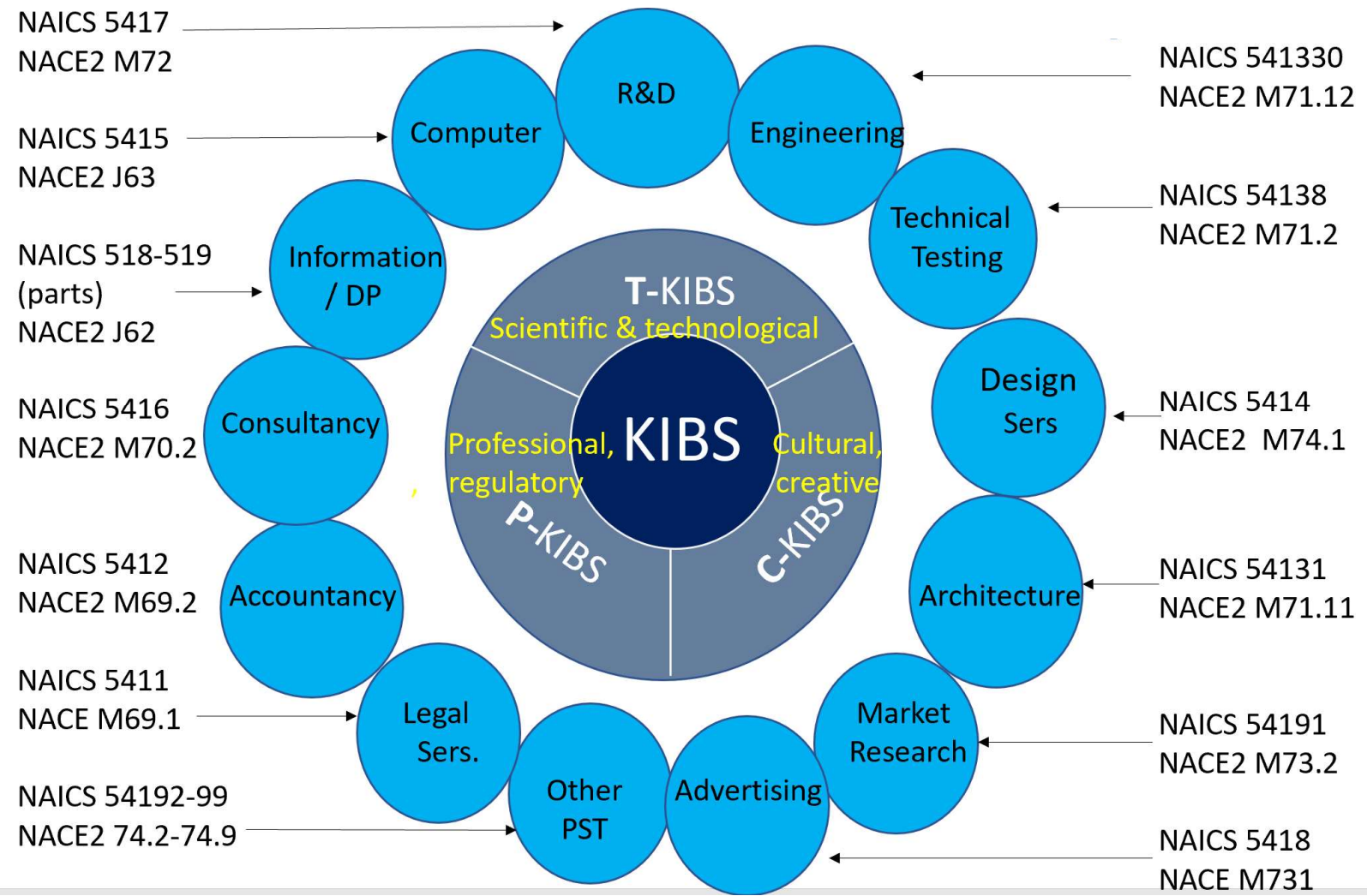
- - Knowledge Intensive Business Services- otherwise known as Professional, Scientific and Technical Services – provide support to businesses and other organisations (including public services) with problems that they encounter in their business processes.
- - They draw on expertise in various areas of knowledge applied to practice, ranging from science, technology and engineering, through cultural and creative fields, to professional knowledge of administrative, legal and similar domains.
- - As economies become more connected, and requirements for new knowledge grow, so KIBS/PST firms have become important players in advanced economies, and are especially concentrated in metropolitan areas. They are both knowledge-intensive (higher shares of graduates in the workforce than almost all other sectors except education and health) and export-intensive (one of the service sectors in Europe with highest ratios of exports to turnover).
- - They play important roles in transfer of knowledge and support for innovation among their clients: they are often called into play by clients facing problems to do with sustainability and energy transitions. This especially involves firms supplying engineering and consultancy services, but the energy transition may well require support with marketing, legal affairs, design and other knowledge-intensive inputs.
- - The service activity is interactive, involving relationships between supplier and client that often require face-to-face contact, site visits, etc. The client's participation is critical to service success.
- - This requires capabilities for suppliers to communicate and mobilize clients, and for clients to be able to select suitable suppliers, evaluate their contribution, act upon its inputs, and learn about the new technologies or practices that are required. It may well be relevant for capabilities to be established in regulatory agencies and public research institutes, for example, to assess service quality.
- - Some (high and middle-income) developing countries have become significant exporters of these services, though trade is dominated by firms from developed countries. Trade in these services was less badly affected by the pandemic than that in most other services. Mode 3 (commercial presence) is the main medium of trade, and cross-border transactions (mode 1) are fairly common; mode 4 (presence of natural persons) and Mode 2 (consumption abroad) are much less common.
- - Regulatory barriers to trade may be present, though regulations that support knowledge transfer (e.g. training local staff) can help orient economies towards energy transitions. Cultural barriers may apply when service suppliers fail to adapt offerings sufficiently for local markets, and information asymmetries are relatively high in service procurement.
- - These services are liable to continue to grow in importance, and in international sourcing. There is considerable scope for digital forms of trade, and new entries from the developing world. It is critical for problems to be specified in terms of how to make effective energy transitions, and not on basic regulatory compliance and attempts to cast low-carbon initiatives as the problem rather than as opportunities to confront the real problems of climate change.

Knowledge-Intensive Services

- All sorts of organisations produce internal services **for themselves**, alongside their other, main activities. **Service industries** specialise in producing specific services **for their customers**.
- **Business service firms** use their capabilities (skills, technologies) to help other organisations with their **business problems**. (They can service organisations in the public sector, charities, etc., as well as other firms.) Carriers of experience.
- **KIBS** are **Knowledge-Intensive Business Service firms**, who use their expertise, professional skills, and technologies to help other organisations with business processes that require **knowledge inputs**. Often highly innovative.
- The closest equivalent to KIBS in industry and trade statistics is **PST services**, professional plus other knowledge-intensive business services.
- KIBS are specialists; and confront emerging problems. Some examine problems associated with energy transitions. They support large and complex projects, and contribute to entire innovation system.

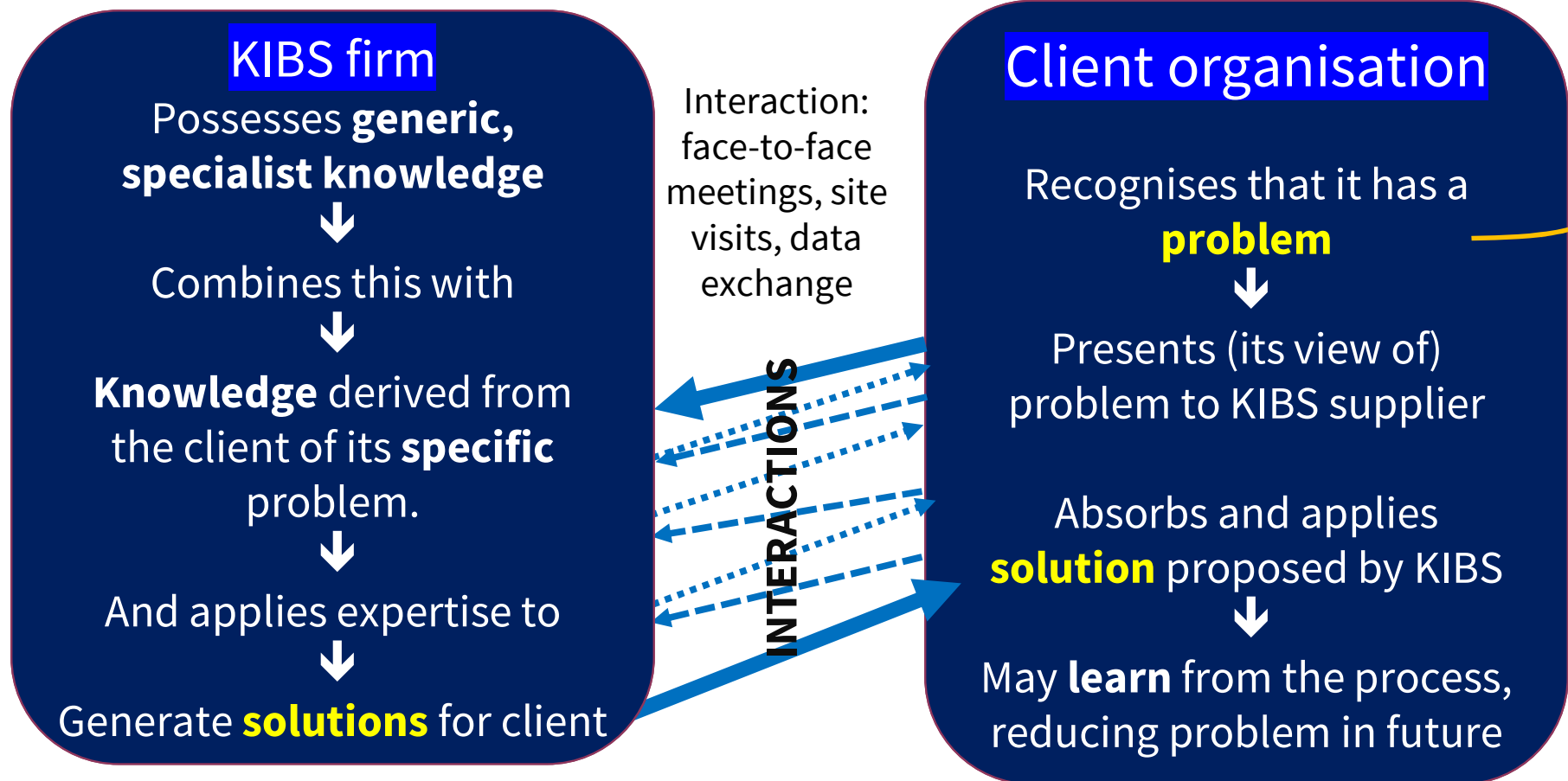
Main Types of PST/ KIBS – industrial classification

KIBS firms **specialise** in these services – often producing several services that combine different types of knowledge. Similar services may be conducted internally by firms themselves (scope for outsourcing, offshoring); or provided externally to some extent by nonKIBS firms, by public sector bodies (RTOs) or NGOs.



KIBS firms apply knowledge and expertise to client problems

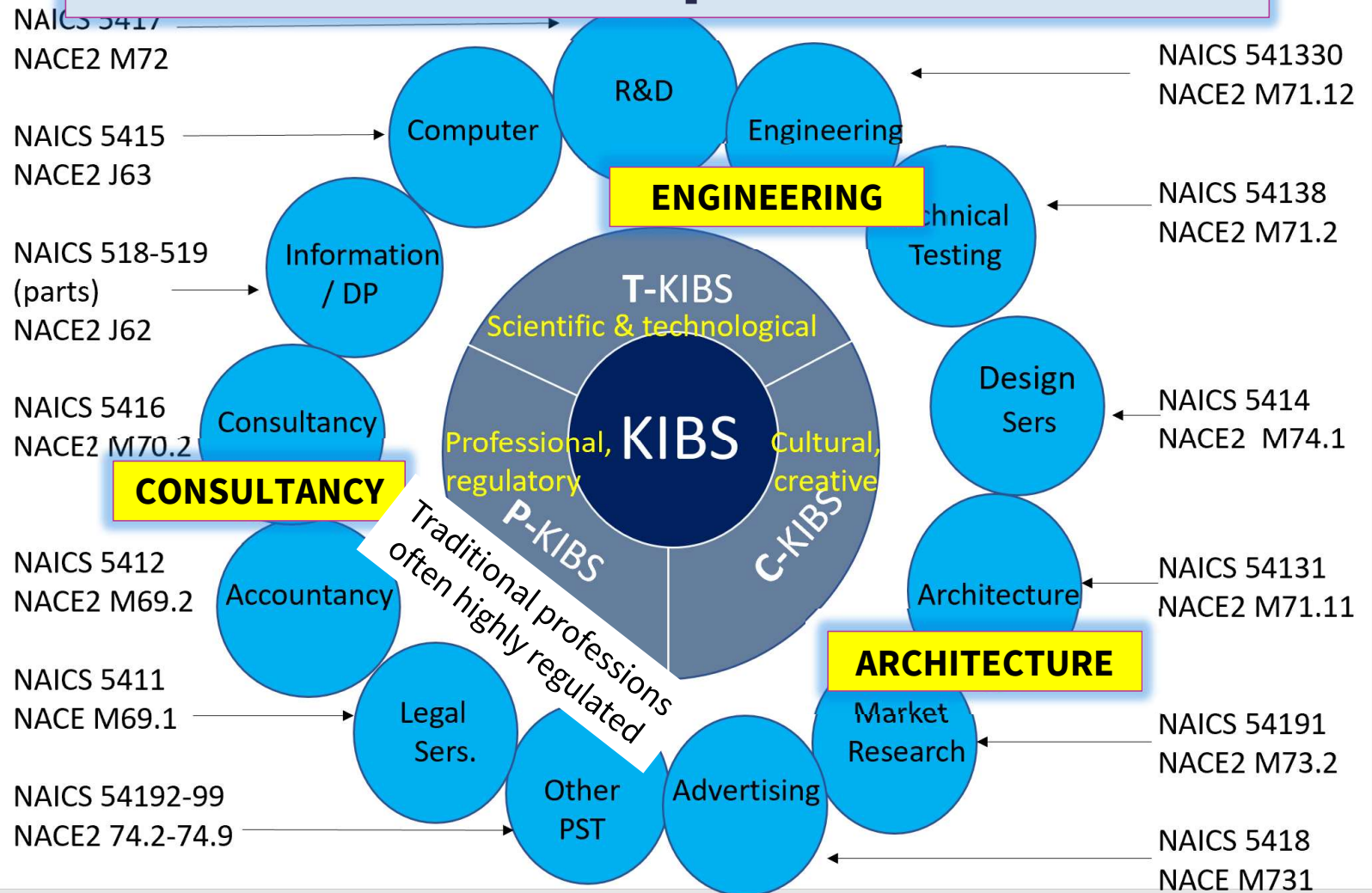
How is the problem defined?
Sustainability – or regulatory compliance? Who defines it?



KIBS and Environmental Impact Assessment

Within most types of KIBS, some “green KIBS” firms will specialise in promoting more sustainable management practices.

Some KIBS specialise in specific environment-related activities, such as EIA., strategic advice, innovation support, technical expertise on energy transitions. Others offer these within a more general portfolio of services.



KIBS deploy specialist knowledge...

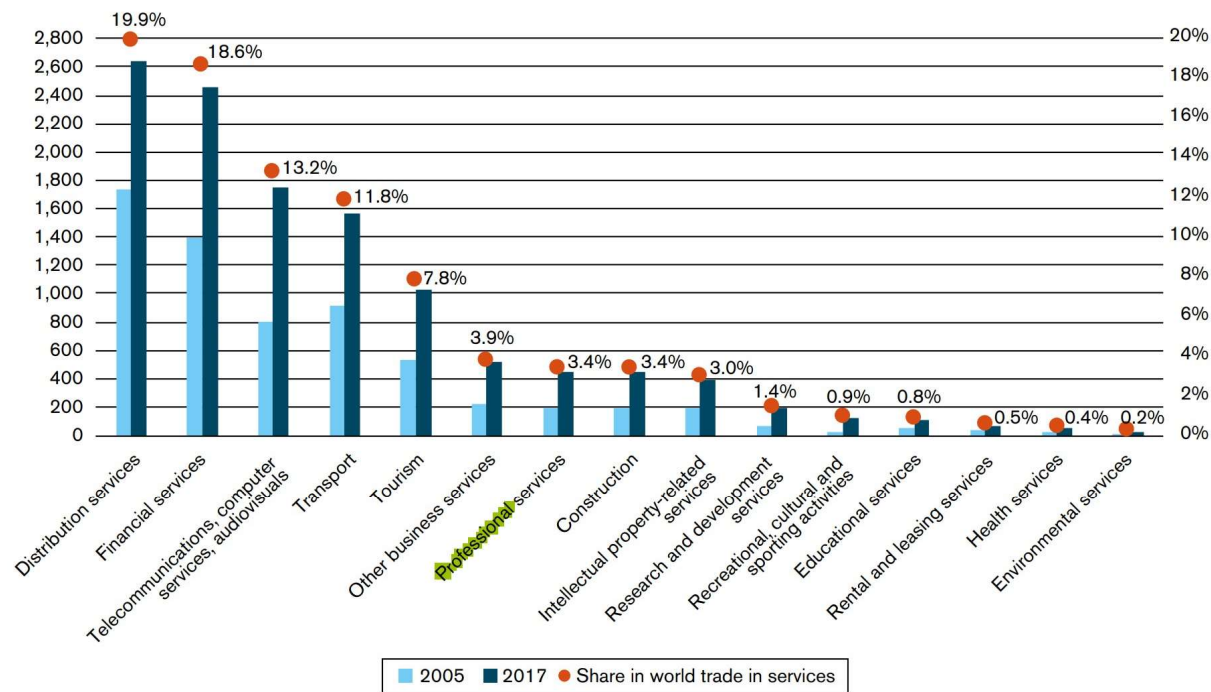
- ... to solve client “business” problems. But clients also need relevant knowledge to:
 - choose an appropriate KIBS supplier,
 - define problem and,
 - interact with KIBS in assessing, and acting on, solutions.
- “Information asymmetries” mean that clients often have problems in these processes, and sometimes fail to devote resources to **coproducing** the service, to acting on it and **learning** from it – let alone being able to challenge low-quality services.
- **Other stakeholders** also require relevant knowledge e.g.
 - policymakers to define policy requirements,
 - regulators to assess compliance,
 - Universities and government labs to carry out their own appraisal, and to train people that could work for, or commission work from, KIBS.



KIBS/PST: <10% of services trade...

Figure B.2: Distribution and financial services are the most traded services³

World trade in commercial services by sector, 2005 and 2017



Source: WTO estimates (2019).

Note: World trade is calculated as the average of world exports and world imports.

Source: WTO “World Trade Report 2019 - The future of services trade”

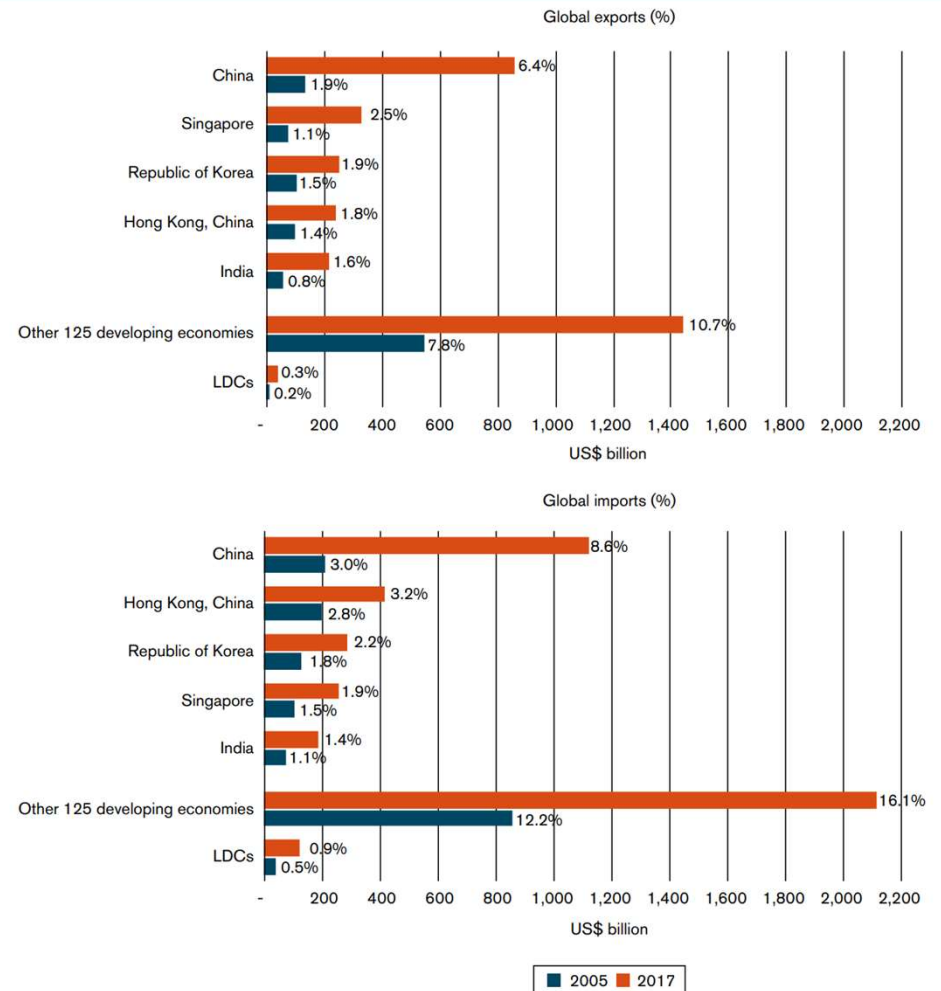
Service Exporters from Developing World

Five Asian economies accounted for 56.7 per cent of (130) developing economies' exports and 58.1 per cent of their imports; these are high (3) or middle-income (2) DCs. Feature rapid growth in exports, leading to WTO's summary "From R&D and IP-related services to ICT services, professional services and finance, these five economies are penetrating high value-added services trade." Increasingly this is via commercial presence (e.g. offices abroad). India and Singapore are high exporters of "other business services" – just behind EU, USA, UK – mainly due to professional and consulting services (World Trade Statistics, 2022).

Source: WTO "World Trade Report 2019
- The future of services trade"

Figure B.10: Five Asian economies account for more than half of developing economies' exports and imports

Leading developing services exporters and importers, 2005 and 2017



Source: WTO estimates (2019).

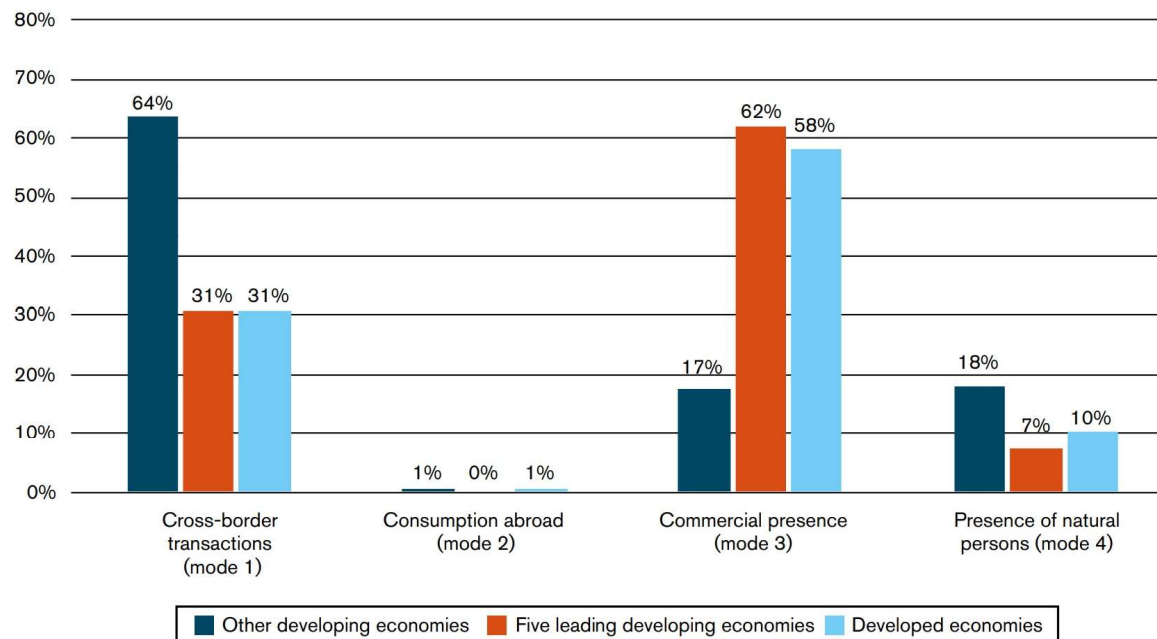
Note: Values differ from reported statistics by the above economies as they include an estimate of services exported or imported through foreign-controlled affiliates.

Interaction: commercial presence

The top 5 developing countries are becoming similar to developed economies – mode 3 services trade has increased steadily, with more than half of their PST exports in 2019 via mode 3, followed by mode 1.

Figure B.13: The other 125 developing economies export services differently

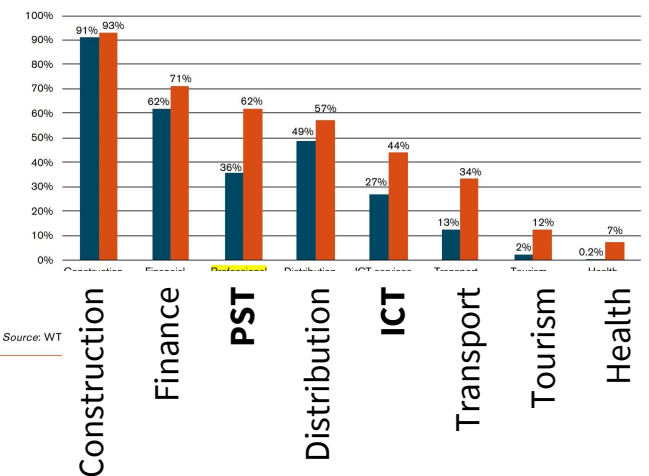
Professional and other business services: share of exports by mode of supply in selected groups of economies, 2017



Source: WTO estimates (2019).

Figure B.12: For the top five developing economies, commercial presence is the dominant mode for exporting services

Five leading developing economies' exports through foreign-controlled affiliates abroad (commercial presence) in selected services sectors, 2005 and 2017



Source: WT

Source: WTO “World Trade Report 2019 - The future of services trade”

Problems with KIBS/PST Trade

- Despite requirements for interaction and proximity, PST trade seems to have been somewhat less severely impacted by the pandemic-related decline in services trade c 2020.
- Trade Barriers: regulatory environment, including professional qualifications
- Client and regulator issues: Information asymmetries, and Capabilities for selection, use, and oversight

- How far is knowledge transferred and embedded in clients/host countries?
- Are enough sustainability skills available, and recognised?
- Are KIBS/PST sufficiently proactive in promoting sustainability over and above minimal regulatory compliance, or viewing green initiatives as the problem?

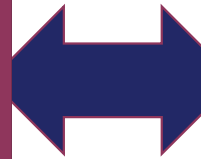
Are the Skills and Capabilities Available?

KIBS firm

- Display expertise in understanding problem, formulating solution
- Acquire, continue to update, apply knowledge in domain
 - Engage with clients, motivate interaction
- Communicate results, motivate action..

CLIENT

- Recognise and (partially) define problem,
- Select KIBS supplier
- Engage with KIBS while producing/delivering service
- Implement KIBS recommendations
- Embed knowledge gained from interaction



REGULATORS, BUSINESS PARTNERS, NGOs etc - Skills (+ facilities, access) to assess quality of EIA and its use, examine KIBS conduct

EDUCATION?/TRAINING: - Capabilities to equip students with basic understanding, and more technical and professional skills.

Using KIBS

Benefits

- Problem solving
- Access to expert knowledge – alternative to labour mobility
- Opportunities to save costs, learn up-to-date practice
- Source of alternative viewpoints, knowledge of trends elsewhere

Broader economic benefits of a dynamic, competitive KIBS sector

Challenges

- “Information asymmetries” – hard for client to make informed choices
- Non-local firms may lack local insight
- Proprietary knowledge – may not be made widely available, harder to evaluate
- Risks of collusion – with narrow views of problem, with unethical clients

Support for clients; credentials (regulation, professional standards), oversight, training

Thanks for listening!

Comments and Questions?