

Governance of dual-use technologies: From the international to the individual level *(Part 2: The Individual level level)*

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Part 1

TRANSFER CONTROLS: A BOTTOM-UP PERSPECTIVE

Company interests

- Desire to have commercial relations as free as possible
 - Maximise opportunities for technology development and production
 - Maximise profit generation through sales
 - Minimise cost and impediments that could increase cost
- Transfer controls
 - Interfere with free commercial relations
 - Restrictions on customer selection
 - Administrative burden
 - Administrative requirements
 - Additional staff or outsourcing of administrative requirements
 - Risk assessments
 - Time delays
 - Increase cost

Nature of technology transfers

- Commercial transactions
 - Trade
 - Assistance
 - Technology may be free for recipient
 - Nevertheless, transfer involves many commercial trade-related activities
- Business decisions
 - Mergers and acquisitions
 - Divestiture of business activities
 - Friendly/hostile company takeovers
 - Corporate breakups
- Undesired technology transfers
 - Theft
 - Propriety information
 - Research, production, process or product data
 - Tangible technologies
 - Hacking
 - Espionage
 - Industrial espionage
 - Government-initiated espionage

Single-use / dual-use technology transfers

- **Single-use military technology transfers**
 - Government control or involvement in the commercial transaction is standard practice
 - Important aspect of national foreign and security policies
 - International agreements on trade relations allow for exceptions on general international trade rules for military technologies
 - E.g. UN Charter (peace and security provisions); GATT and WTO provisions; etc.
- **Dual-use technology transfers**
 - Affects non-military commercial transactions
 - Transfer controls interfere with free-trade principles
 - Unlike sanctions, they are rather permanent strictures
 - Require security-related imperatives
 - Often part of international weapon-control treaties or decisions by international organisations (e.g. UNSC)

Export controls & transfer controls

- **Export controls**

- Commercial transactions between two or more countries
- Five broad types of action
 - Export
 - Import
 - Temporary storage
 - Transit across the territory before re-exportation at a different location
 - Processing: value-adding activity before re-exportation

- **Transfer controls**

- Include export controls
- Also cover:
 - Commercial transactions within a country
 - Business decisions
 - Undesired technology transfers

Types of measures affecting companies – 1

- **International level**
 - Weapon control agreements
 - Multilateral (global) treaties
 - Regional treaties
 - UNSC resolutions (under Chapter VII of the UN Charter)
 - Different aspects of terrorism and crime
 - Sanctions or embargoes against states and non-state actors
 - EU laws, regulations and sanctions (supranational decision-making only applicable to EU members)
- **National level**
 - Implementation legislation required by international agreements
 - Transfer controls
 - Criminal and penal law
 - Implementation of agreements reached within informal technology transfer arrangements (e.g. Australia Group, Nuclear Suppliers Group, etc.)
 - National sanctions or embargoes
 - Other national security or strategic considerations
 - E.g. in foreign acquisition of assets or takeovers

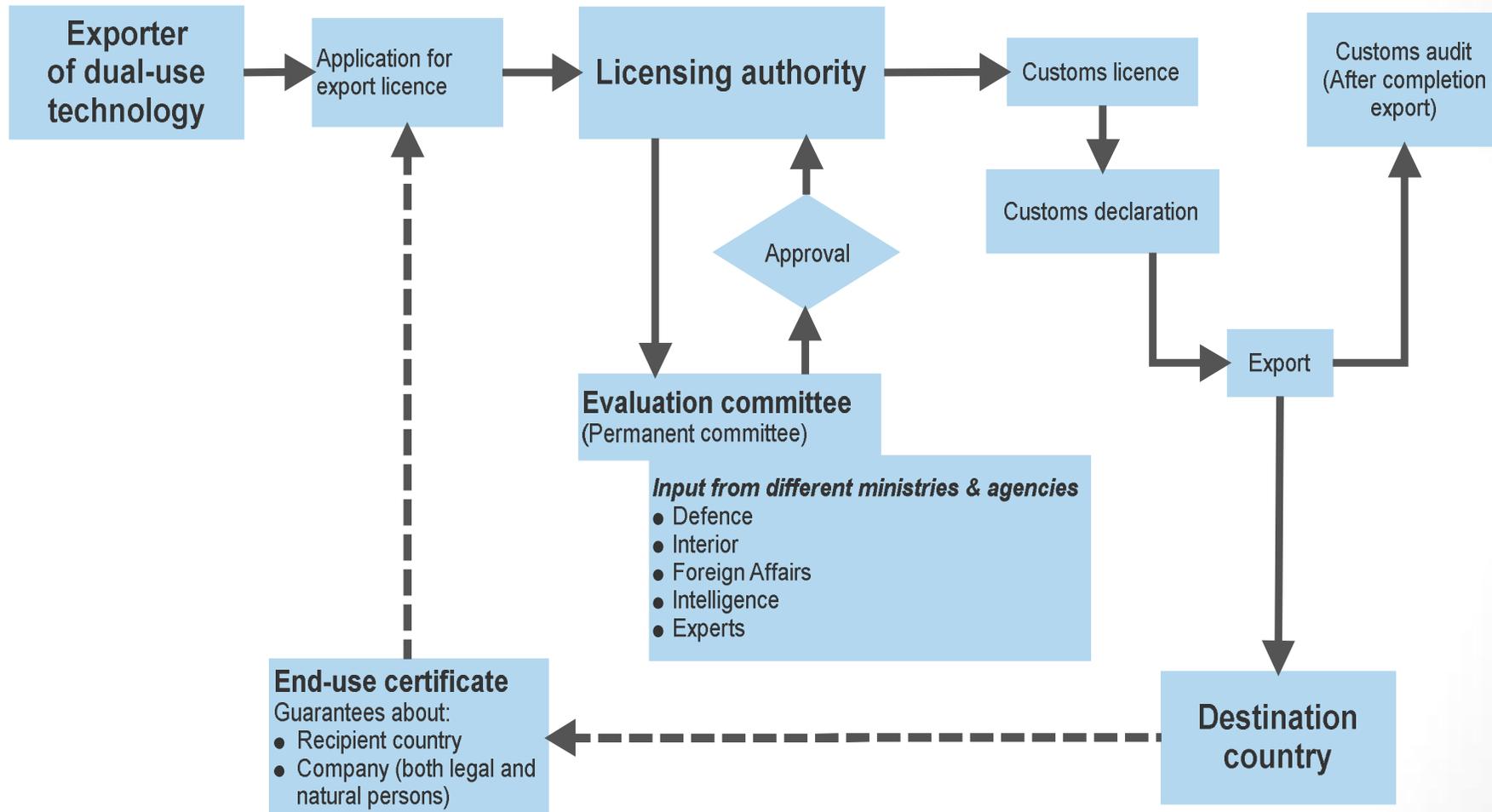
Types of measures affecting companies – 2

- Technical requirements
 - Health and safety requirements
 - WHO, OIE, FAO, regional organisations
 - National requirements
 - Environmental safety standards
 - International agreements
 - National requirements
 - Transport safety
 - Air, sea, rail or road
 - Packaging standards for hazardous materials
 - Customs regulations
 - ICO
 - National regulations
- Company-level requirements
 - Risk management policies (security & safety) according to national or international standards
 - Prevention of undesired technology transfers

Part 2

ORGANISATION OF NATIONAL TRANSFER CONTROLS:
POLICY INSTRUMENTS

Applying for an export licence



← - - - Prior requirement

National regulatory framework

- Sources of the national regulatory framework
 - Treaties and binding resolutions (e.g. UNSC) regulating weapon-relevant technologies
 - International and national standards on health, safety and the environment
 - Temporary binding security-related constraints on technology transfers
 - International sanctions and embargoes (global and regional)
 - National sanctions and embargoes
- Requirements following from the implementation of the national regulatory framework
 - Governmental decisions, ordinances, directives
 - Procedures and administrative requirements
 - Technology transfer application
 - Regulatory oversight and auditing requirements
 - Transparency and reporting (including for international treaty obligations)

Enforcement of the regulatory framework

- **Criminalisation**

- Legislative process of making specific acts violating the regulatory framework a criminal offence
- Requires laws and other regulatory measures
- Must cover
 - The various dimensions of the technology transfer process
 - The various actors and partners in the technology transfer process

- **Penalisation**

- Laws and other legislative measures that identify the punishment for the criminal offences

- **Enforcement**

- Empowering certain (administrative, law enforcement, etc.) agencies to
 - Monitor technology transfers,
 - Oversee the implementation of the regulatory framework,
 - Act when infringements are noted (corrective, penal)
 - Investigate and act upon discovery of malfeasance

Outreach and education

- **Assistance with the technology transfer process**
 - Passive assistance tools (e.g. national internet portals with legislative and regulatory information)
 - Assistance desks in relevant ministries and agencies
 - Contact points for general questions
 - Contact points for specific issues (e.g. export authorisation application)
- **Education and training**
 - Specific types of businesses
 - Staff specialisation
 - General education as part of regular courses or other educational programmes
- **Outreach**
 - Proactive engagement of relevant industries and businesses with a view of increasing their overall awareness of obligations and implementation

Part 3

ORGANISATION OF NATIONAL TRANSFER CONTROLS:
POLICY IMPLEMENTERS

Ministries

- Different ministries play roles in the technology transfer process
 - Administrative accompaniment of the transfer process
 - Monitoring of regulatory conformity of the transfer process
 - Fiscal administration
 - Security assessment
 - Health, safety and environmental monitoring
 - Law enforcement
 - Etc.
- Policy development
 - Legislation
 - Policy and administrative decisions
- Interactions with
 - Parliament regarding the further development of regulatory frameworks
 - Stakeholder communities for regulatory input and outreach
 - Businesses
 - Special interest groups: professional associations, civil society, etc.

Managing technology transfers

- Licensing authority
 - Issuing export licences
 - Denial of sensitive exports
 - Technical knowledge
 - Important source of information for the exporter
- Customs
 - Border controls
 - Company audits

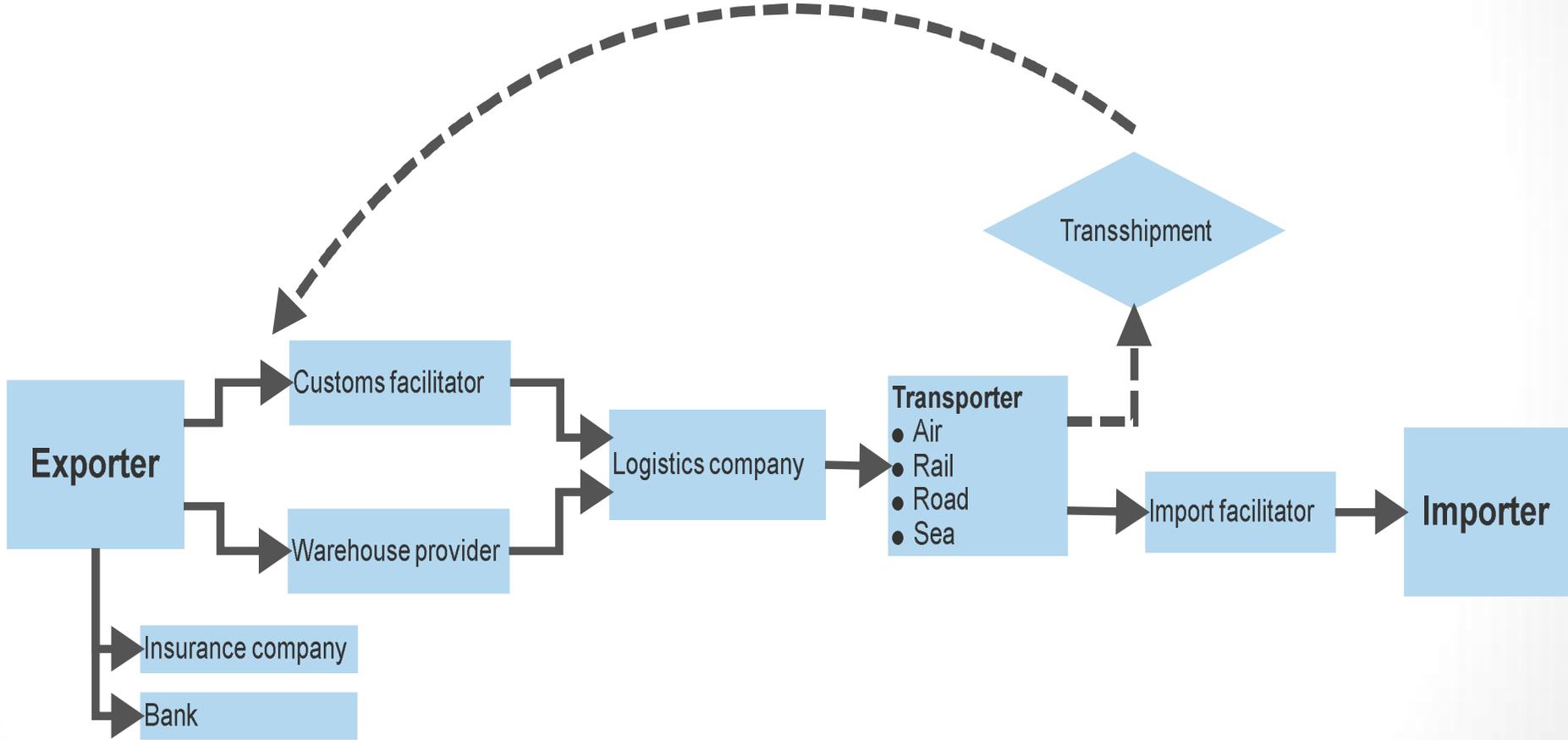
Preventing illicit transfers

- Intelligence agencies
 - Information gathering
 - Data analysis and threat/risk assessment
 - Notification of threats and risks
- Law enforcement
 - Investigation
 - Prosecution
 - Penalisation

Part 4

ORGANISATION OF NATIONAL TRANSFER CONTROLS:
ACTOR CATEGORIES

Technology transfer partners



Suppliers

- Industry (manufacturing)
 - Products
 - Raw materials
 - Semi-finished products
 - Finished products
 - Processes
 - Importation
 - Processing / Value enhancement
 - Exportation
 - Internal transfers
- Services
 - Intangible technology transfers
 - Includes:
 - Consulting
 - Information technology and knowledge economy
 - Training and education
 - Maintenance and repairs

Facilitators

- Underwriters
 - Investors (in the industrial activity)
 - Financers
 - Insurers
- Facilitators
 - Traders
 - Brokers
 - Goods
 - Customs facilitation
 - Physical persons
 - Automated systems
 - Shippers:
 - Consignor
 - Consignee
 - Transshipment companies

Knowledge and expertise

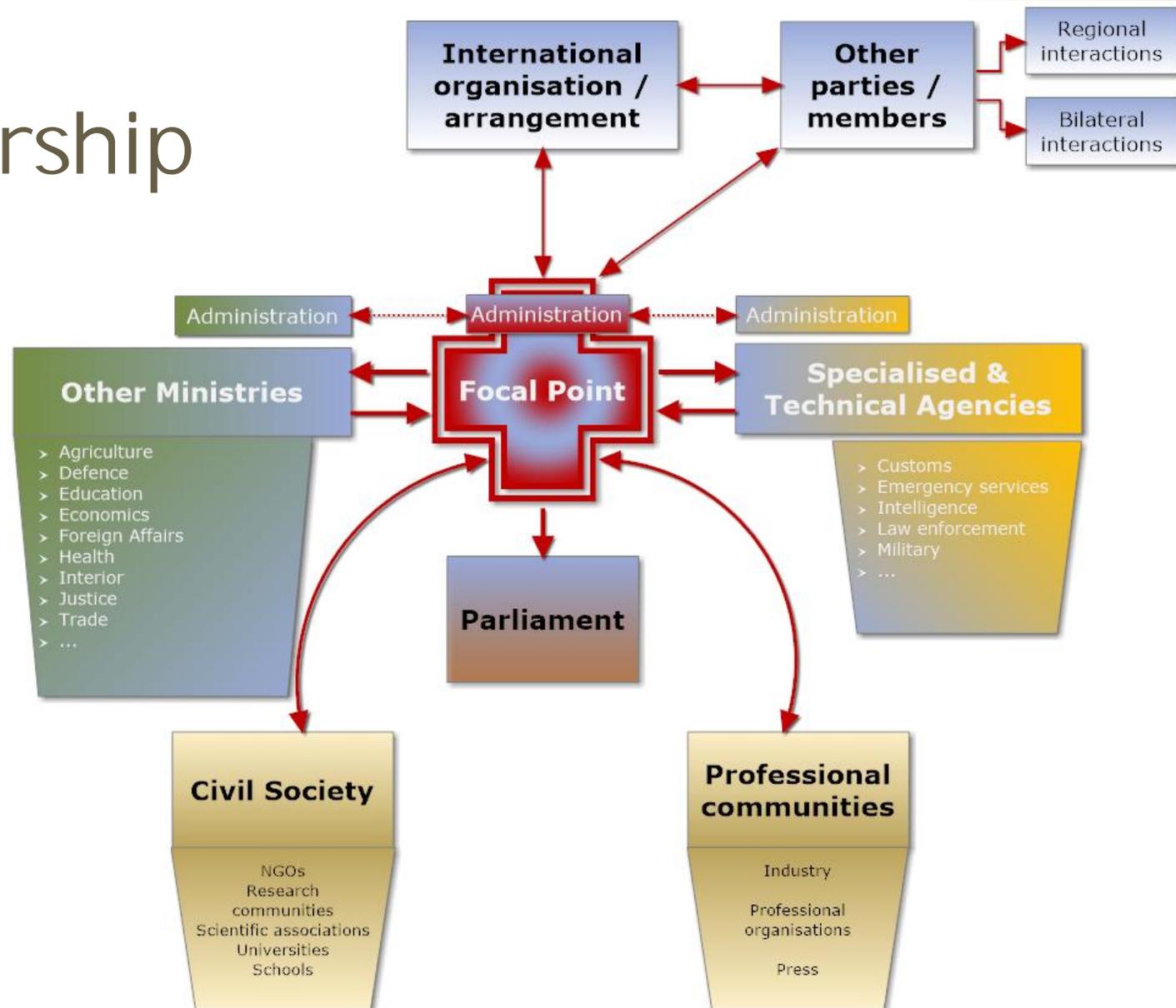
- **Academics**
 - Universities
 - Research institutes and think tanks
- **Scientists and engineers**
 - Research institutes
 - Laboratories and testing facilities
- **Professionals**
 - Technology experts
 - Technicians
- **Civil society**
 - Expertise in various areas, including assistance in treaty implementation, etc.

Part 5

SUMMARY:

A COMPLEX NETWORK OF STAKEHOLDERS

Multi-stakeholdership





THE TRENCH

Recalling where science, industry and military art converged
Challenging entrenched positions

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