



EU P2P
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Challenges in implementing strategic trade controls over transfer of technology – the perspective of the research institute

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Basic concepts

➤ Export:

- EU: includes **transmission** of software or technology by electronic media, including by fax, telephone, electronic mail or **any other electronic means** to a **destination outside the customs territory of the Union**; it includes **making available** in an electronic form such software and technology to natural or legal persons or to partnerships **outside the customs territory of the Union**; it also includes the **oral transmission** of technology **when the technology is described** over a voice transmission medium
- Serbia: includes **transmission** of software and technology by **electronic media, telefax or telephone** to the **area outside of Republic of Serbia**, as well as the option of **making software or technologies available** in electronic form **to persons outside of Republic of Serbia**



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Basic concepts

- **Technology:** Information required for the development, production, use or an item. This information takes the form of '**technical data**' or '**technical assistance**'
- **Development:** relates to all stages prior to serial production, such as design, design research, design analyses, design concepts, assembly and testing of prototypes, pilot production schemes, design data, process of transforming design data into a product, configuration design, integration design, layouts
- **Production:** includes all production stages, such as product engineering, manufacture, integration, assembly (mounting), inspection, testing, quality assurance
- **Use:** Operation, installation (including on-site installation), maintenance (checking), repair, overhaul and refurbishing
- **General Technology Note:** The term “required” refers to that portion of technology that is peculiarly responsible for achieving or exceeding the controlled performance levels, characteristics or functions



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Basic concepts

- Example of **required technology** for Unmanned Aerial Vehicles (drones)
- The following characteristics and functions among others are important to fall within export control: **autonomous flight control or controlled flight out of the direct natural vision of the operator, endurance and range.** Technology may be covered if it relates to one of these features. This can be the case, for example, if autonomous flight control is developed or optimised for a drone. However, **if the technology is designed to enable drones to communicate and interact with agricultural machinery, then it is usually not required technology.** Consequently, this technology would not be covered by the control lists.



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How can technology be exported?

ITEMS = goods, software and **technology**

*“specific information necessary for
the development, production or use of goods”*

Tangible technology

Technical data: diagrams, plans...

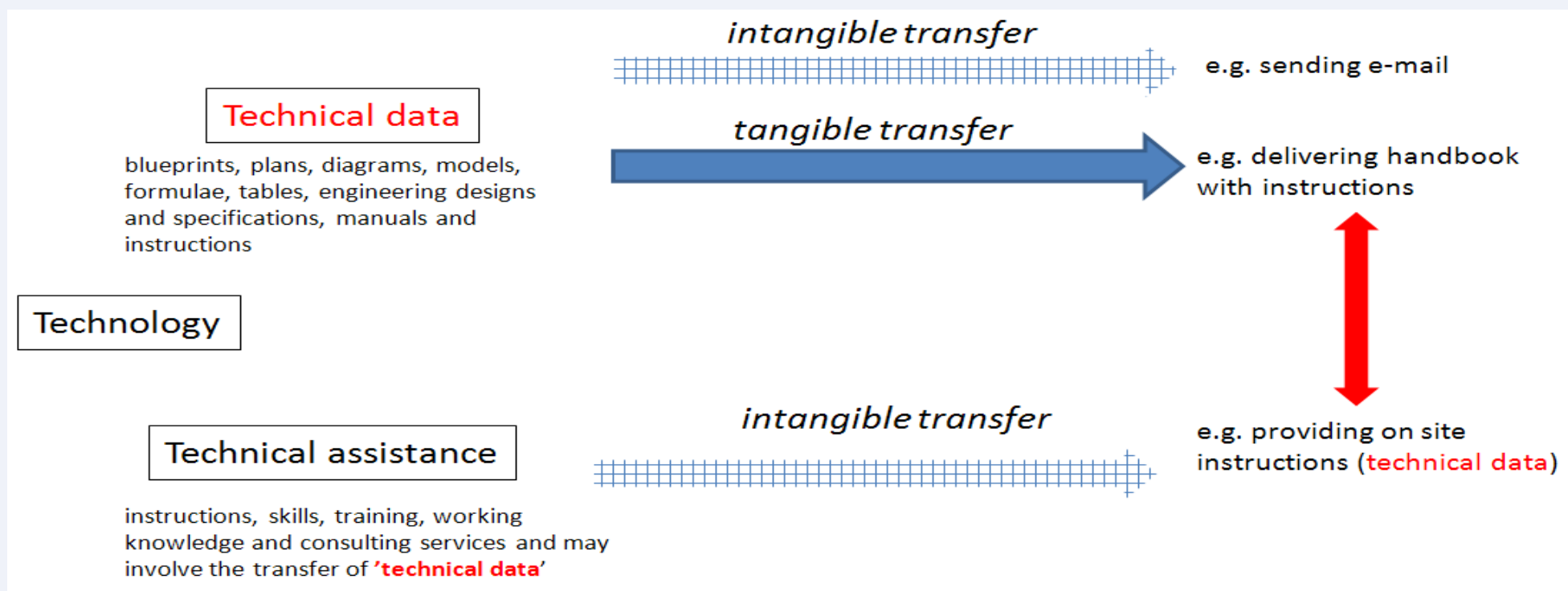
Intangible technology

Knowledge, technical assistance



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Tangible vs. Intangible Technology Transfers

- Intangible Technology
- Intangible Transfer
- Tangible technical data
- Tangible or intangible technology transfer





(Intangible) Technology Transfer

- Technology Transfer = umbrella term for the export of technology
 - technology = controlled Technology
 - transfer = export
 - tangible = export of a physical item (“commodity”)
 - intangible = export of an intangible item
- **Intangible Technology Transfer (ITT)** the is export or transfer of technology from one entity to another via non-physical (intangible) means.
- Transfer of ITT can occur as:
 - Exposure to technical data as part of research or work
 - Meetings, discussions or other personal interactions
 - Presentations, seminars, trainings, briefings
- **Both tangible and intangible technology can be transferred through intangible (non-physical) means**



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What is not an export of technology?

- Technology that is NOT required for the development, production or use of a controlled item – often difficult and potentially arbitrary determination
- Information that is in the public domain
- Technology that arises during or results from fundamental/basic scientific research
- Minimum necessary information for patent applications.
- Minimum necessary technology for the installation, operation, maintenance (checking) or repair of those goods which are not controlled or whose export has been authorized (except those in 1E002.e., 1E002.f., 8E002.a. and 8E002.b.)
- Some examples: Sales brochures, catalogs, Technical performance data, Generally available norms and standards



Where/how can you start?

➤ Challenge of identifying the technology:

- Understand your potential exposure & risks
 - What technology does your company handle and what products does it relate to? In many cases, the end product helps guide this analysis
 - In what form/format is the technology stored and where?
 - Who has access to this technology and where are the persons located?
 - Are any processes or controls in place to safeguard this technology?
- Engineers would need to support this analysis of what technology should be controlled – trade compliance staff is not well equipped to make such a determination
- HR and IT involvement is critical
 - Hiring practices, data privacy restrictions & roster of employees
 - Access controls



Where/how can you start?

➤ Challenge of classifying the technology – is it a controlled technology?

- Listed in **Section E** (technology) of any category of Dual Use List?

Consider the '**General Technology Note**', 'Nuclear Technology Note': Technology "required" for the "development", "production" or "use" of goods controlled in Categories 0 to 9"?

Application of **decontrol notes**: "public domain", "basic scientific research", "necessary minimum technology"?

- **Classification necessary** for every "transmission by electronic media" or "making available in an electronic form"



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So ... you have controlled technology! Now what?

➤ Challenge of controlling the technology

- Educate the key stakeholders on potential compliance risks and the proposed controls going forward
- Consider export licensing requirements
- Develop a training & education program
- Other than employees, contractors and occasional visitors, consider also the potential impact to other service providers with access to the site/technology
- Remember: catch-all clause (would also cover non-controlled technology, if the relevant conditions are met)



Cloud computing

- **Cloud computing** is the on-demand availability of computer system resources, especially data storage (cloud storage) and computing power, without direct active management by the user.
- Includes upload of data to a server and the decentralized storage of data (“cloud storage”)
- **Uploading data to cloud storage** and granting access to project partners from foreign countries falls within the scope of the definition of export as “making available in an electronic form”
- No access (download) to the technology/software is required!
 - ➔ Purposeful creation of an access option is already sufficient!



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ITT and risk assessment tools

- Travelling with laptops containing controlled data abroad can be subject to prior permit (e.g. travel sheets including export control notice)
- Using only approved corporate file sharing platforms for e-transfers.
- Awareness raising among the employees
- Keeping auditable records for each controlled technology transfer



BAFA-Approach: Information Leaflet on ICP

Intangible transfer of technology

How does the company ensure compliance with the intangible transfer of technology (ITT) requirements (for example e-mail and access to the Intranet from abroad)?

The company should have issued clear and written instructions in relation to ITT over e-mail, fax, Intranet or Internet, incl. cloud computing.

The provision or transfer of technology should not occur until the assessment has been if a license is required, and if applicable, a licence is in place to permit the transfer.



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Best practice examples

1

Where can Dual-Use Technology be separately stored in the organization?
Is there a **unified IT system** for all institutes, entities or subdivisions?

2

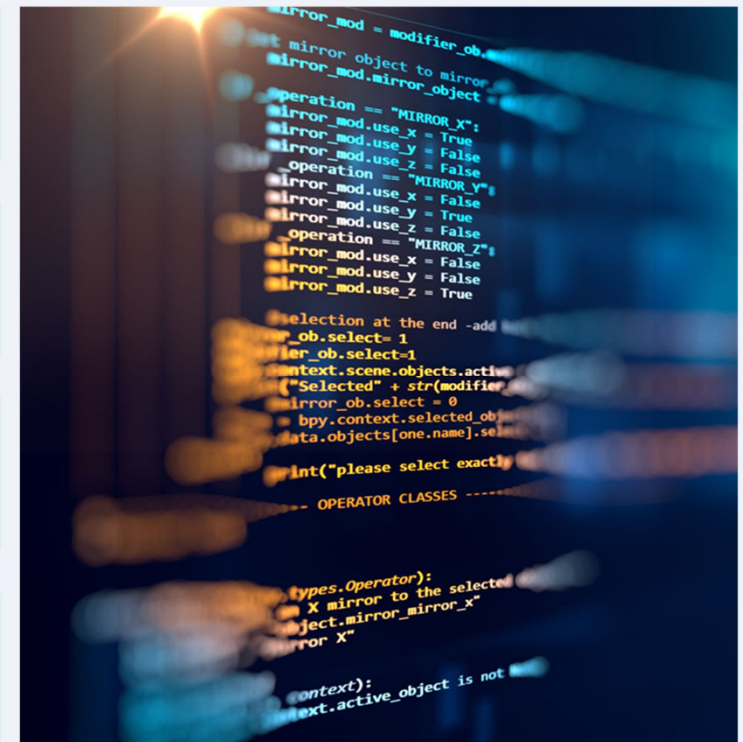
Implementation of an **access rights concept** possible?
(e.g. depending on the country from which access is requested)

3

Is it possible for the **IT department to manage the granting and withdrawing of access rights** depending on a prior the export control assessment?

4

IP-Blocking (and **IP tracing** for known VPN) for embargoed countries possible?





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Final considerations

- Technology controls require above all a change in mentality, which is not easy and takes time – buy-in and support from senior leadership is critical!
- Technology controls/restrictions will likely be seen as limiting collaboration, delaying R&D projects, restricting sales, increasing costs and, ultimately, impacting revenue – expect resistance
- Stay close to all key stakeholders, especially R&D, Manufacturing, Service & Repair, IT, Commercial, Quality, HR, – they are the ones that control access to and drive transfers of technology
- Accept that you may not be able to control everything!

Hvala na paznji!

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