Multi-disciplinary research in export controls

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The Trench

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Research objectives

- Preparing the course
- Supporting the course
- Setting future priorities
- Research disciplines
- Knowing how to conduct research

Part 1

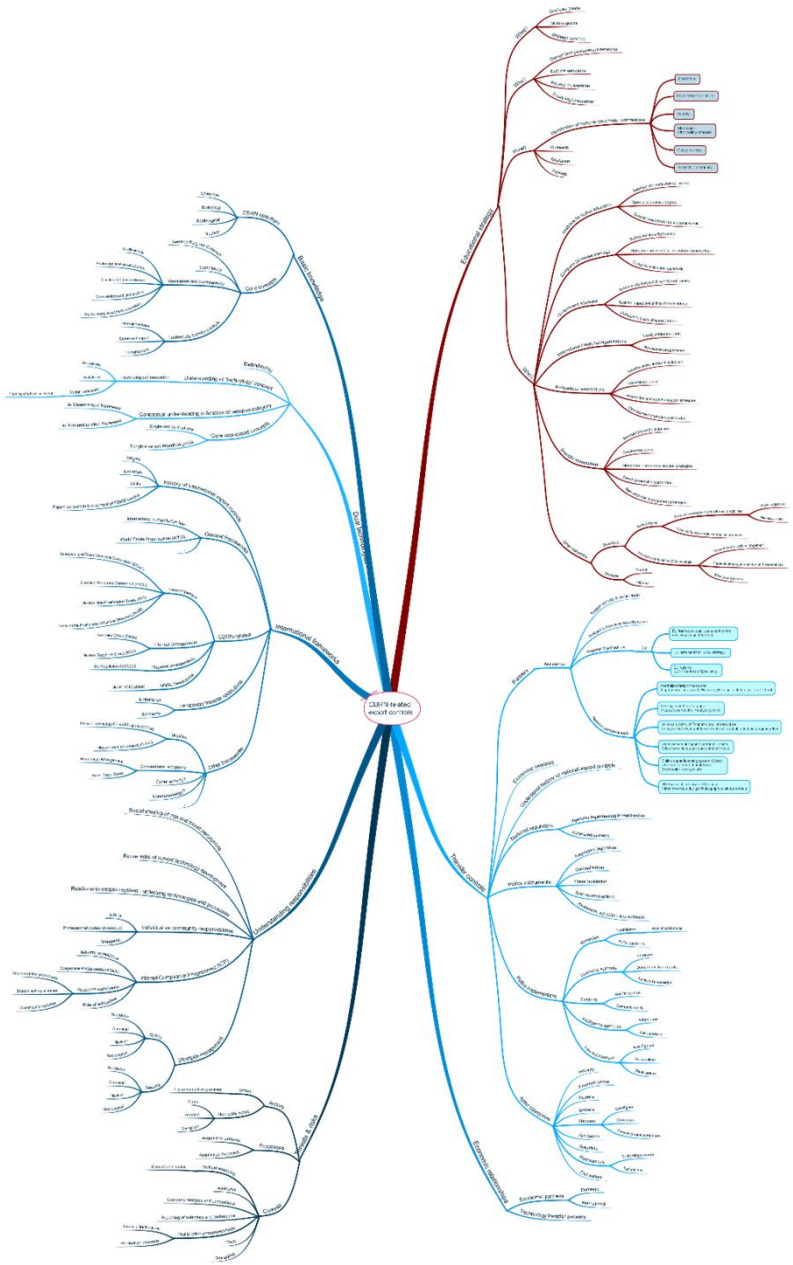
PREPARING THE COURSE

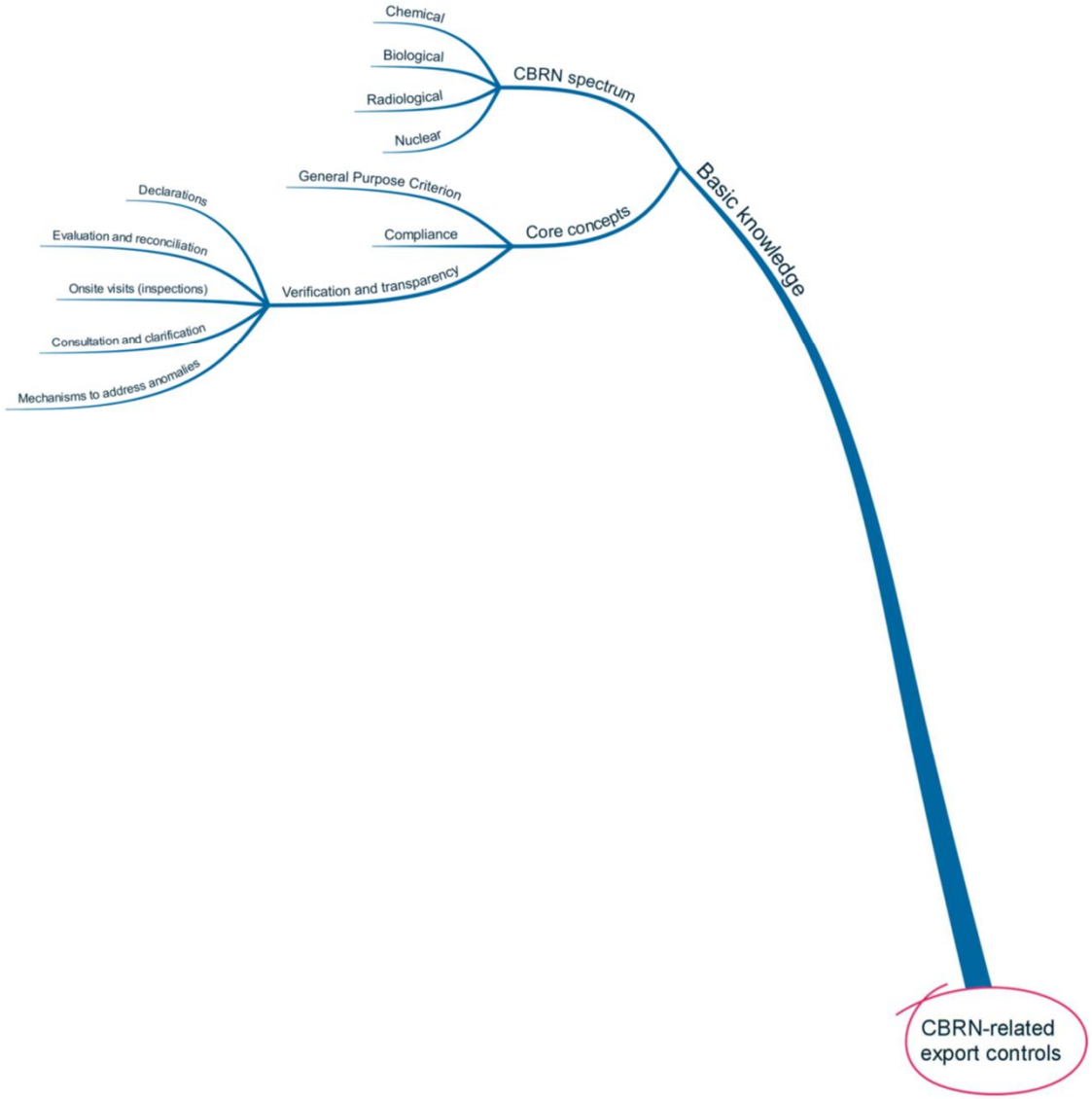
First steps

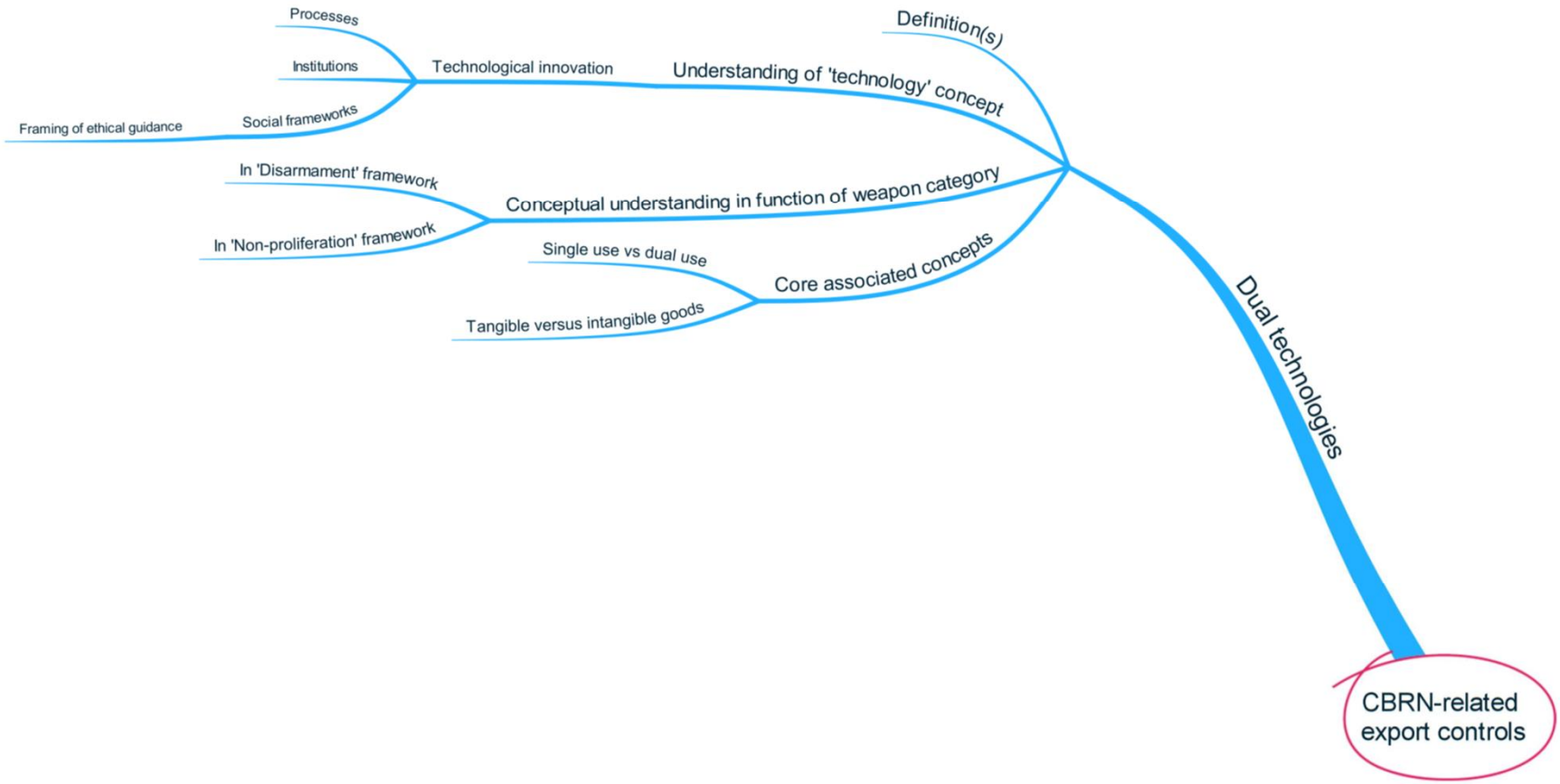
- Defining needs
  - What does the course want to support?
  - Who will be the primary target audiences?
  - How shall we create the demand for such a course?
- Setting issue priorities
  - In function of immediate needs
  - In function of available capacities
    - Research & teaching staff; equipment; research materials
  - In function of funding support

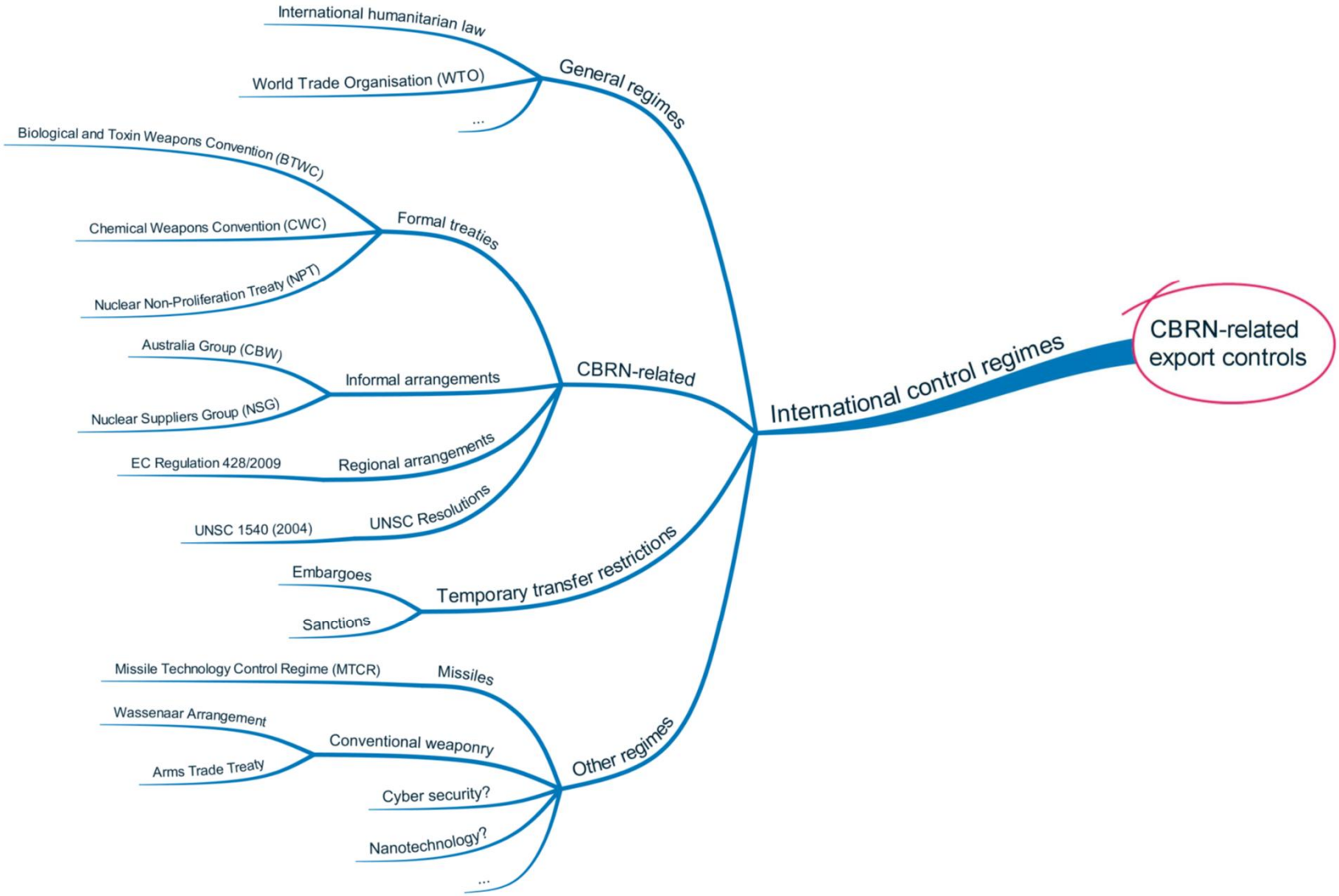
Mapping issue areas

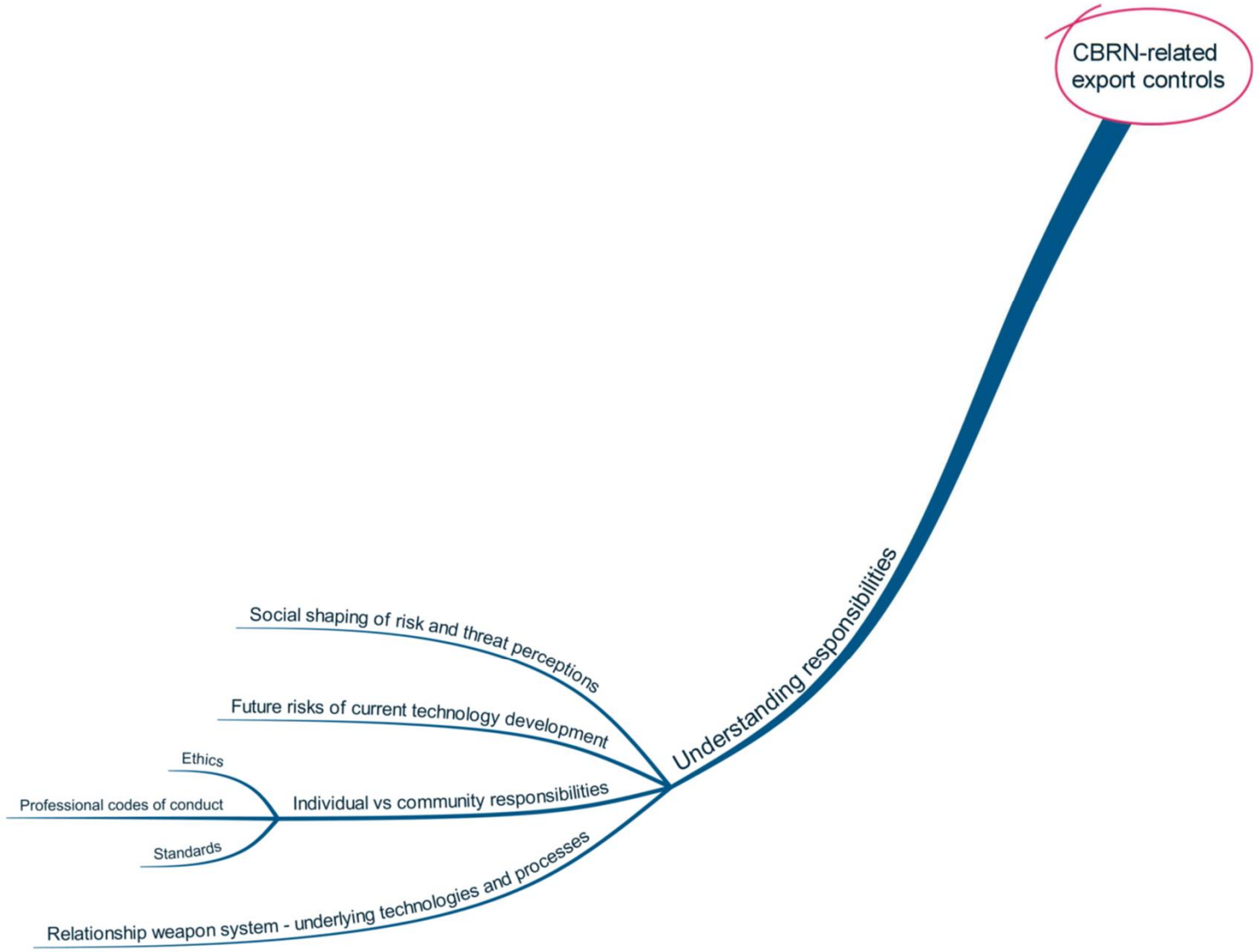
- Building a comprehensive overview of issues
  - Use of mind-mapping software
    - Allows identification of major and subordinate topics
    - Allows for reorganisation of thoughts
- Establishing linkages between issue areas
- Grouping issue areas into practical education modules

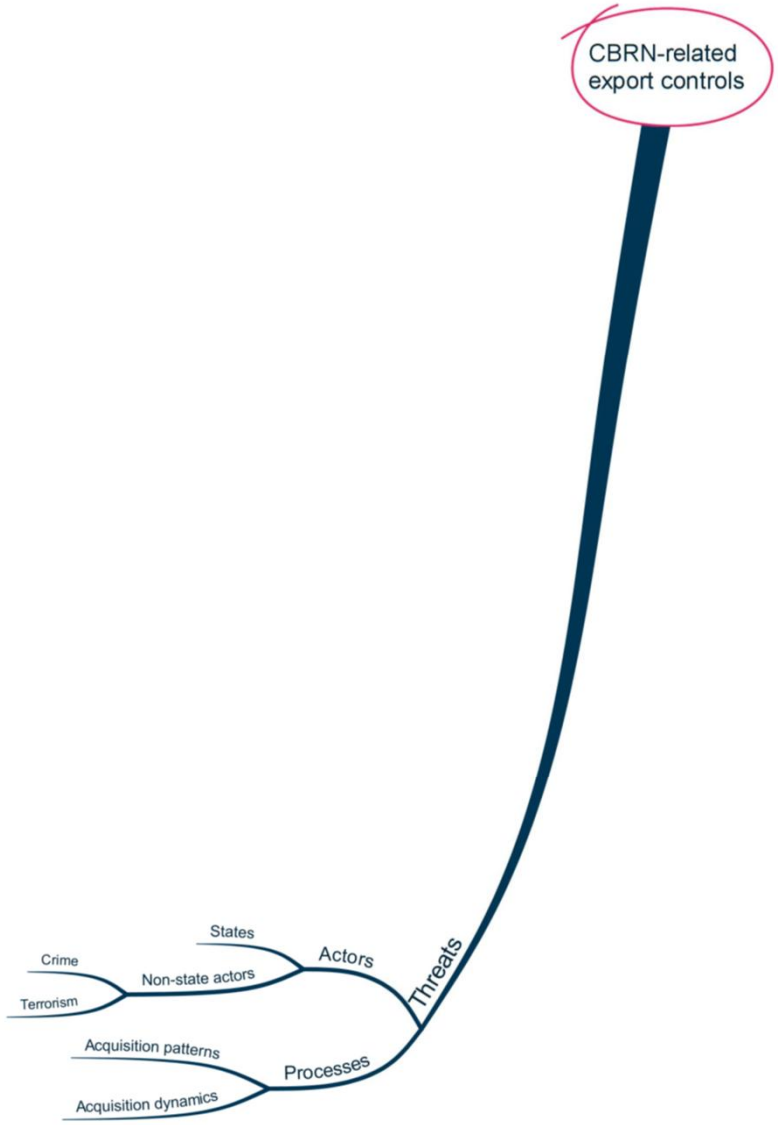

CBRN related export controls
Basic knowledge
Dual knowledge
International frameworks
Understanding responsibilities
Threats & risks
Educational strategy
Transfer controls
Economic relationships

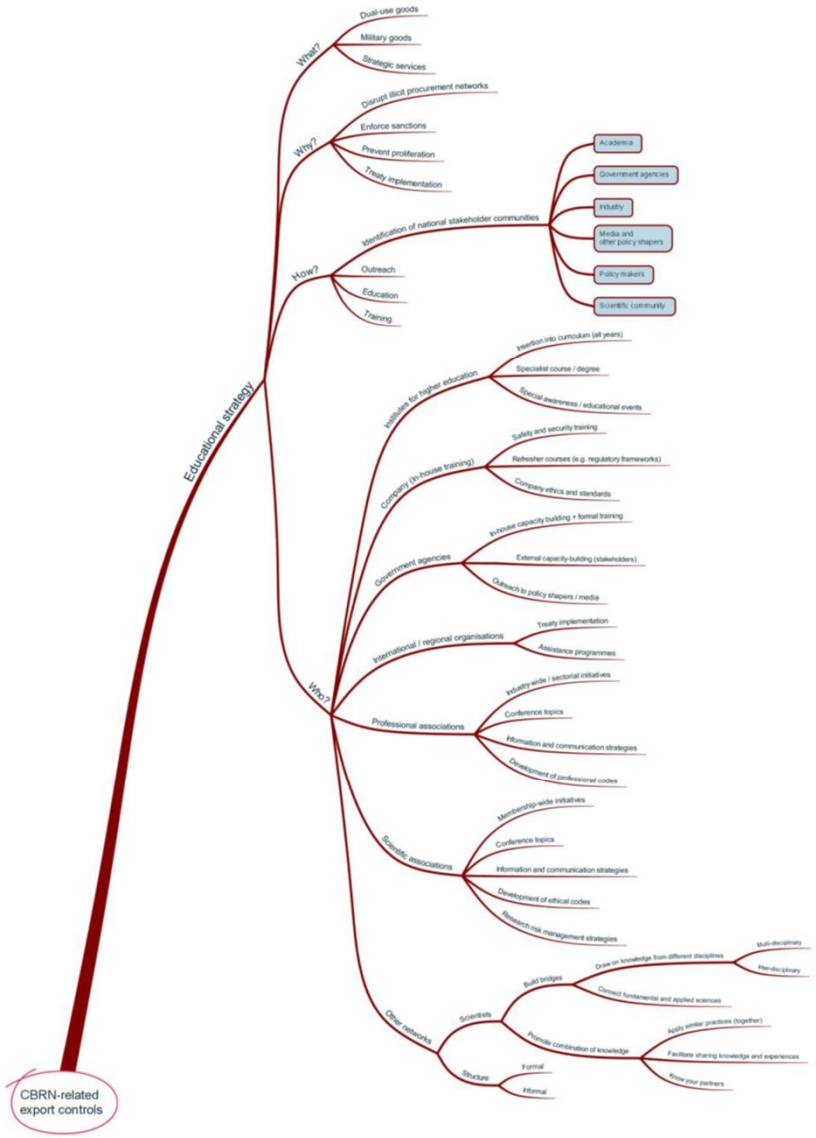

CBRN-related export controls
Basic knowledge
CBRN spectrum
Chemical
Biological
Radiological
Nuclear
Core concepts
General Purpose Criterion
Compliance
Verification and transparency
Declarations
Evaluation and reconciliation
Onsite visits (inspections)
Consultation and clarification
Mechanisms to address anomalies

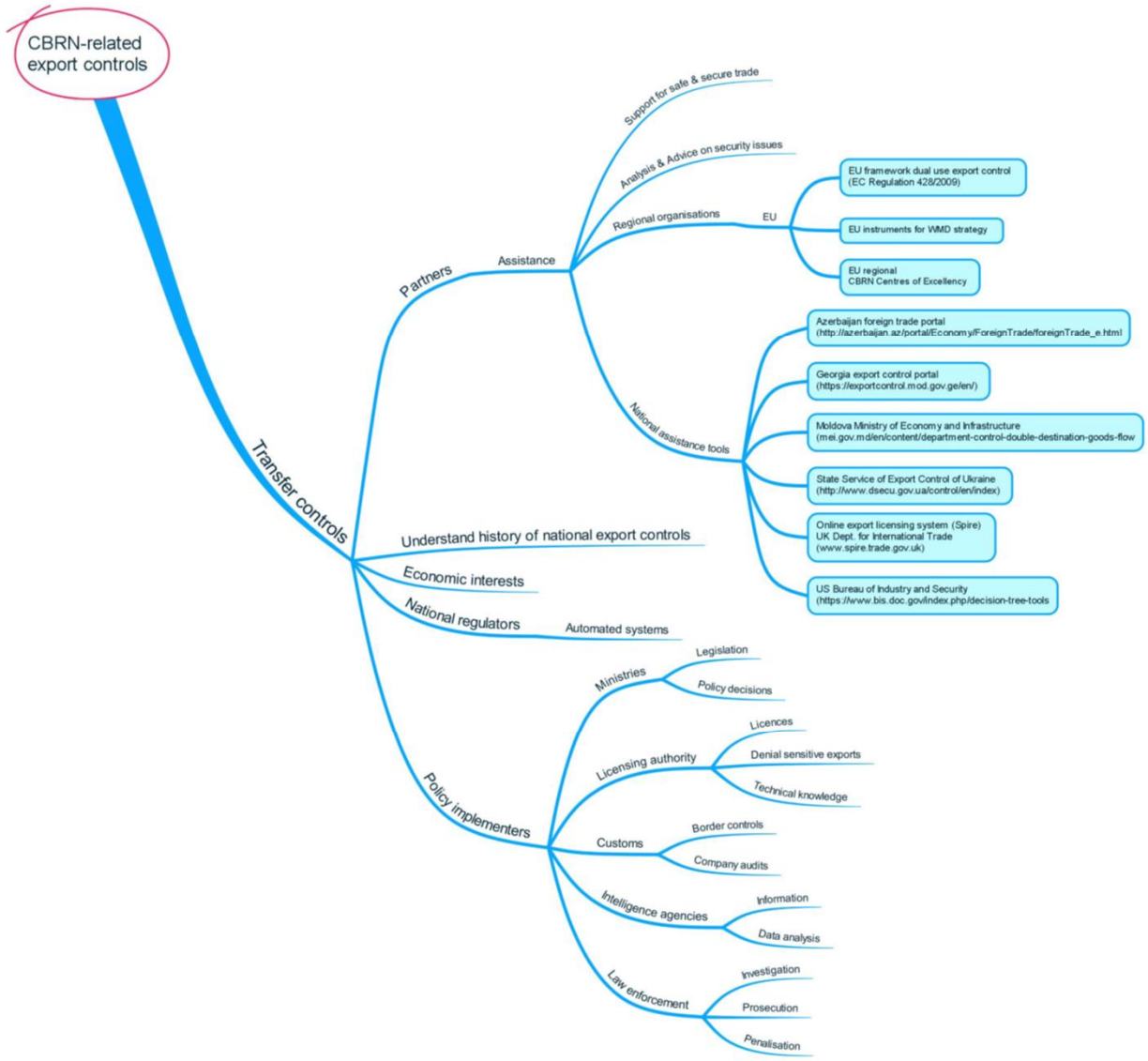

Dual technologies
CBRN-related export controls
Understanding of 'technology' concept
Definition(s)
Technological innovation
Processes
Institutions
Social frameworks
Framing of ethical guidance
Conceptual understanding in function of weapon category
In 'Disarmament' framework
In 'Non-proliferation' framework
Core associated concepts
Single use vs dual use
Tangible versus intangible goods


CBRN-related export controls
International control regimes
General regimes
International humanitarian law
World Trade Organisation (WTO)
...
CBRN-related
Formal treaties
Biological and Toxin Weapons Convention (BTWC)
Chemical Weapons Convention (CWC)
Nuclear Non-Proliferation Treaty (NPT)
Informal arrangements
Australia Group (CBW)
Nuclear Suppliers Group (NSG)
Regional arrangements
EC Regulation 428/2009
UNSC Resolutions
UNSC 1540 (2004)
Temporary transfer restrictions
Embargoes
Sanctions
Other regimes
Missiles
Missile Technology Control Regime (MTCR)
Conventional weaponry
Wassenaar Arrangement
Arms Trade Treaty
Cyber security?
Nanotechnology?
...


CBRN-related export controls
Understanding responsibilities
Social shaping of risk and threat perceptions
Future risks of current technology development
Individual vs community responsibilities
Ethics
Professional codes of conduct
Standards
Relationship weapon system - underlying technologies and processes


CBRN-related export controls
Threats
Actors
States
Non-state actors
Crime
Terrorism
Processes
Acquisition patterns
Acquisition dynamics


CBRN-related export controls
Educational strategy
What?
Dual-use goods
Military goods
Strategic services
Why?
Disrupt illicit procurement networks
Enforce sanctions
Prevent proliferation
Treaty implementation
How?
Identification of national stakeholder communities
Academia
Government agencies
Industry
Media and other policy shapers
Policy makers
Scientific community
Outreach
Education
Training
Who?
Institutes for higher education
Insertion into curriculum (all years)
Specialist course / degree
Special awareness / educational events
Company (in-house training)
Safety and security training
Refresher courses (e.g. regulatory frameworks)
Company ethics and standards
Government agencies
In-house capacity building + formal training
External capacity-building (stakeholders)
Outreach to policy shapers / media
International / regional organisations
Treaty implementation
Assistance programmes
Professional associations
Industry-wide / sectorial initiatives
Conference topics
Information and communication strategies
Development of professional codes
Scientific associations
Membership-wide initiatives
Conference topics
Information and communication strategies
Development of ethical codes
Research risk management strategies
Other networks
Scientists
Build bridges
Draw on knowledge from different disciplines
Multi-disciplinary
Inter-disciplinary
Connect fundamental and applied sciences
Promote combination of knowledge
Apply similar practices (together)
Facilitate sharing knowledge and experiences
Know your partners
Structure
Formal
Informal


CBRN-related export controls
Transfer controls
Partners
Assistance
Support for safe & secure trade
Analysis & Advice on security issues
Regional organisations
EU
EU framework dual use export control (EC Regulation 428/2009)
EU instruments for WMD strategy
EU regional CBRN Centres of Excellency
National assistance tools
Azerbaijan foreign trade portal (http://azerbaijan.az/portal/Economy/ForeignTrade/foreignTrade_e.html
Georgia export control portal (https://exportcontrol.mod.gov.ge/en/)
Moldova Ministry of Economy and Infrastructure (mei.gov.md/en/content/department-control-double-destination-goods-flow
State Service of Export Control of Ukraine (http://www.dsecu.gov.ua/control/en/index)
Online export licensing system (Spire) UK Dept. for International Trade (www.spire.trade.gov.uk)
US Bureau of Industry and Security (https://www.bis.doc.gov/index.php/decision-tree-tools
Understand history of national export controls
Economic interests
National regulators
Automated systems
Policy implementers
Ministries
Legislation
Policy decisions
Licensing authority
Licences
Denial sensitive exports
Technical knowledge
Customs
Border controls
Company audits
Intelligence agencies
Information
Data analysis
Law enforcement
Investigation
Prosecution
Penalisation

CBRN-related export controls
Economic relationships
Economic partners
Domestic
International
Technology transfer patterns

Part 2

SUPPORTING THE COURSE

Looking for sustainability of the course

- Building future capacities
  - Need to acquire and sustain influx of expert capacity
    - For teaching
    - For research
- Building course legitimacy
  - Course must be seen as relevant by the university, agencies and funders
  - Substantive research and publications required (national & international)
- Network building
  - Institutional
  - Academic
- Student support
  - Dissertations
  - Future job opportunities

Part 3

SETTING FUTURE PRIORITIES

Types of research and teaching capacities

- Applied activity
  - Building national capacities relevant to governments and businesses
- Academic competence
  - Building internal research & teaching capacities
  - International academic participation
    - Part of network building: international recognition builds domestic legitimacy
- Support of master and PhD levels of research
  - Having in-house capacities attracts students of different levels
    - Professors and assistants should have expertise to guide students in relevant ways
    - Important student recruitment argument

Part 4

RESEARCH DISCIPLINES

Multi- and interdisciplinary design

- Law
  - International law
  - Business law
  - Administrative law
  - Law enforcement & criminology
- Political and social sciences
  - Norm development
  - Ethics
  - Social developments
  - Security studies
  - Government administration
  - Decision-making
- Economics
  - Trade
  - Entrepreneurship
  - Risk analysis
  - Standards
- Sciences and engineering
  - Chemistry
  - Life sciences
  - Nuclear physics
  - Risk management
- Etc.

Part 5

KNOWING HOW TO CONDUCT RESEARCH

Problem observed while teaching modules

- Principal target audiences
  - Students
  - Educators
  - Scientists
  - Government officials
- Limited knowledge of
  - Key documents
  - Information resources
  - How to search for relevant or up-to-date data in support of the execution of their responsibilities
  - How to validate their research results

Research instruction needs

For students

- Basic principles
  - Document hierarchy
  - Search operators
  - Searching for specific documents
  - Searching within a website
- Framing search questions
  - Structuring the search process
  - Developing and maintaining a search protocol
  - Retaining search focus
  - Search tools: advantages & drawbacks
- Impact of medium used on searching

For academics & professionals

- Advanced search techniques
  - Finding primary documents
  - Refining searches
  - Specialist search engines
  - Specialised search operators
  - Internet-based translation
- Validating search results
  - What data to rely on?
  - How to know how to rely on certain data?
  - Eliminating mis- & disinformation
  - Physical verification
    - E.g. Google Earth or Google Street

THE TRENCH

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Challenging entrenched positions

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