Exploiting Theoretical Frameworks to the Full:
Their Application to the Security of Multi-Modal Passenger Terminals (The Pre_Empt Project)

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Main Themes

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- Project PRE_EMPT What works in securing Multi-Modal Passenger Terminals (MMPTs)?
- The Complexity of MMPTs
- Types of action relevant to securing MMPTs from attack
- Bringing it all together: The promise of a theoretical framework
- The Conceptual Attack Framework (CAF): *What it is, What goes into it; How it is Applied*
- CAF: Live Demonstration
- What We've Learned: Opportunities & Challenges in using CAF

Background: The Pre_Empt Project

(Process Review and Evaluation of Multi-modal Passenger Terminals Resilience for Counter Terrorism)

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Aims

- To identify 'best practice' solutions to securing multi-modal passenger terminals from terrorist attack and serious crime
- To deliver best practice advice and guidance in an easy-to-use format for industry
- To inform the development of a pan EU Land Transportation Security Strategy

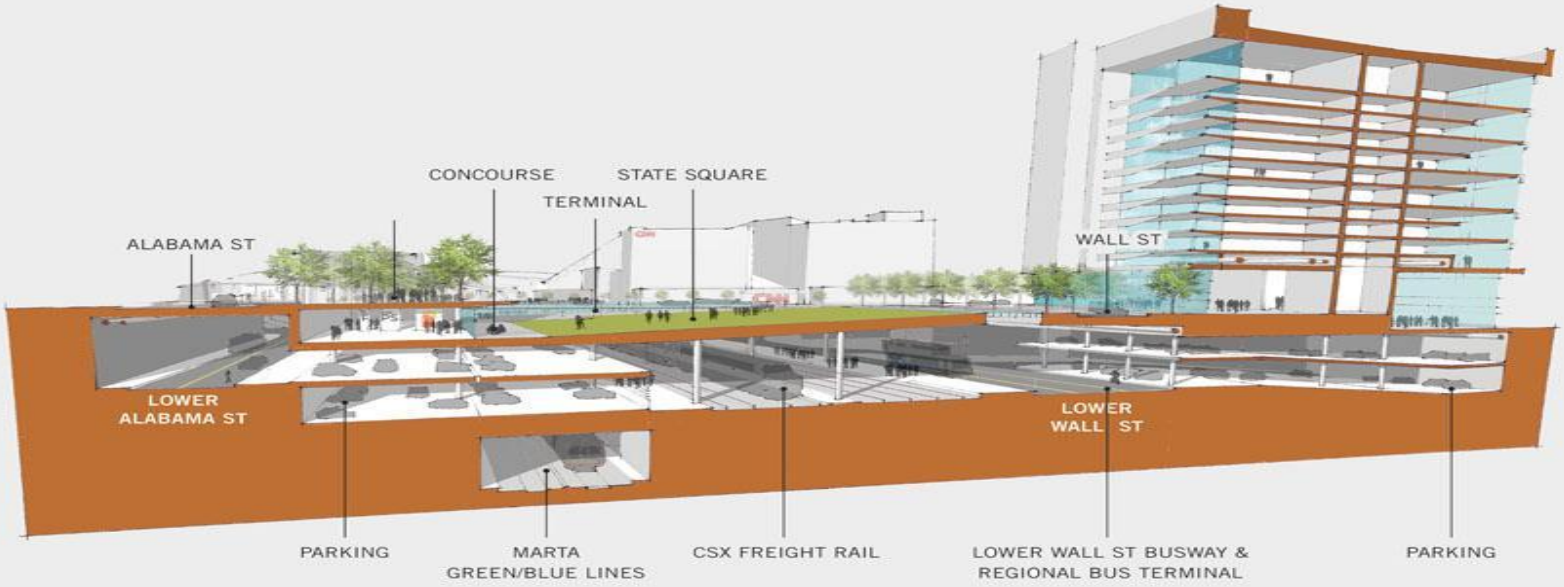
Methodology

- Original EU Request was for a Meta Analysis of What Works.

Our Alternative Route:

- Creation of a Conceptual Attack Framework
- Systematic Literature Review
- Programme of Site Visits and 'visual audits'
- Synthesis and Indicative toolkit for security personnel

Complexity of MMPTS



Further Complexities affecting Security:

Fragmentation in ownership & control over land and buildings

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- Variations in land and property ownership create different jurisdictions
- Determine which part of a site security managers can and cannot control
- Each transport mode may have its own security staff (rail, trams, buses, metro)
- Each transport mode will have diverse departments with different concerns (e.g. signalling, tracks, marketing, revenue protection)
- Several businesses may operate concurrently on the same site leading to differences in:
  - Vetting & training of staff employed by different companies
  - Security practices & procedures (use of CCTV, hours attended)
  - IT and communications equipment
  - Maintenance standards and regimes
  - Communication/ intelligence sharing between and across agencies

BUT Terrorism does not respect organisational boundaries

Types of security action at MMPTs

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- **Intervention** – operational tasks intended to directly reduce risk of terrorist attacks, describable as **practical methods** (e.g. access control) and **theoretical principles** (e.g. defeat, discouragement, deterrence)
- **Implementation** – practical support tasks to make the intervention methods happen and thus realise the principles (e.g. designing and installing access control)
- **Involvement** – practical support tasks to mobilise individuals (e.g. staff) and organisations (e.g. cleaning contractors) to undertake or assist implementation of the intervention, to remove hindrances or to stop making attacks easier
- Each of these can be addressed at **tactical to strategic** levels

Bringing it all together:
The promise of a theoretical framework

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Conceptual Attack Framework:

For the project team

- Helps answer the question “How do we know what we need to know?”
- Does so more effectively than by intuition, random search, process of elimination
- Handles absence of reliable evidence by drawing on theory and experience
- Identifies theoretically tested and transferrable principles on interventions, how to implement them, and who to involve
- Reveals gaps in knowledge & agenda/ priorities for further research
- Ensures that guidance produced is theoretically sound and plausible

For end users

- Synthesises & structures knowledge to communicate to end users
- Guides practitioners through operational tasks
- Helps identify what is the most suitable intervention for which context

Scoping the Conceptual Attack Framework – Key Questions for Pre_Empt

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Security in General

How do opportunities to launch attacks arise?

Protective interventions – to reduce risk of terrorist attack happening

How can these opportunities be blocked off to prevent an attack?

What types of intervention are appropriate?

How are they meant to work ? In principle and in practice?

Preparatory interventions – to reduce harm once an attack has started

What can be done if the worst should happen (i.e. an attack) to reduce harm whilst an attack is taking place ?

What can be done in the immediate aftermath of an attack to reduce harm ?

The CAF: Sources of Knowledge

A Synthesis of research and learning from:

- Crime Prevention and Counterterrorism Theory;
- Research and Evaluation Studies (Effectiveness of Interventions and 'Implementation Science')
- Knowledge/ scrutiny of Policy Guidance;
- Practitioner-knowledge and visual audits of sites;
- Information from related practice beyond land transportation security and counter-terrorism

The CAF: Practical Applications I

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- Map entire space of theoretically plausible attacks (action types and procedures, and the opportunities that enable them)
- Map entire space of theoretically plausible responses (interventions)
- Record attacks and responses that appear in published/grey literature

And by deduction:

- Flag attacks, attack opportunities & responses absent from published/grey literature
- Flag which attacks & responses are not on the ‘radar’ of practitioners

The CAF: Practical Applications II

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- Influencing search terms for Systematic Review
- Designing a template for extracting relevant data from literature
- Cross-referencing CAF & Literature (common coding system)
- Identifying questions for practitioner interviews (fieldwork)
- Informing what to look for in visual audits of sites
- Helping to organise & structure results from the systematic review and fieldwork
- Providing a template for the design of an indicative toolkit on protecting MMPTs for security personnel

Using the CAF
Opportunities & Challenges I

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- CAF can only be partially displayed because of its size. Software to overcome visualisation challenges is however available

- Insufficient detail in published/grey literature to populate CAF – hence reliance on theoretical/practical plausibility

- Need to resolve how to indicate visually which parts of the CAF have and have not been covered in the literature

The CAF: Demonstration

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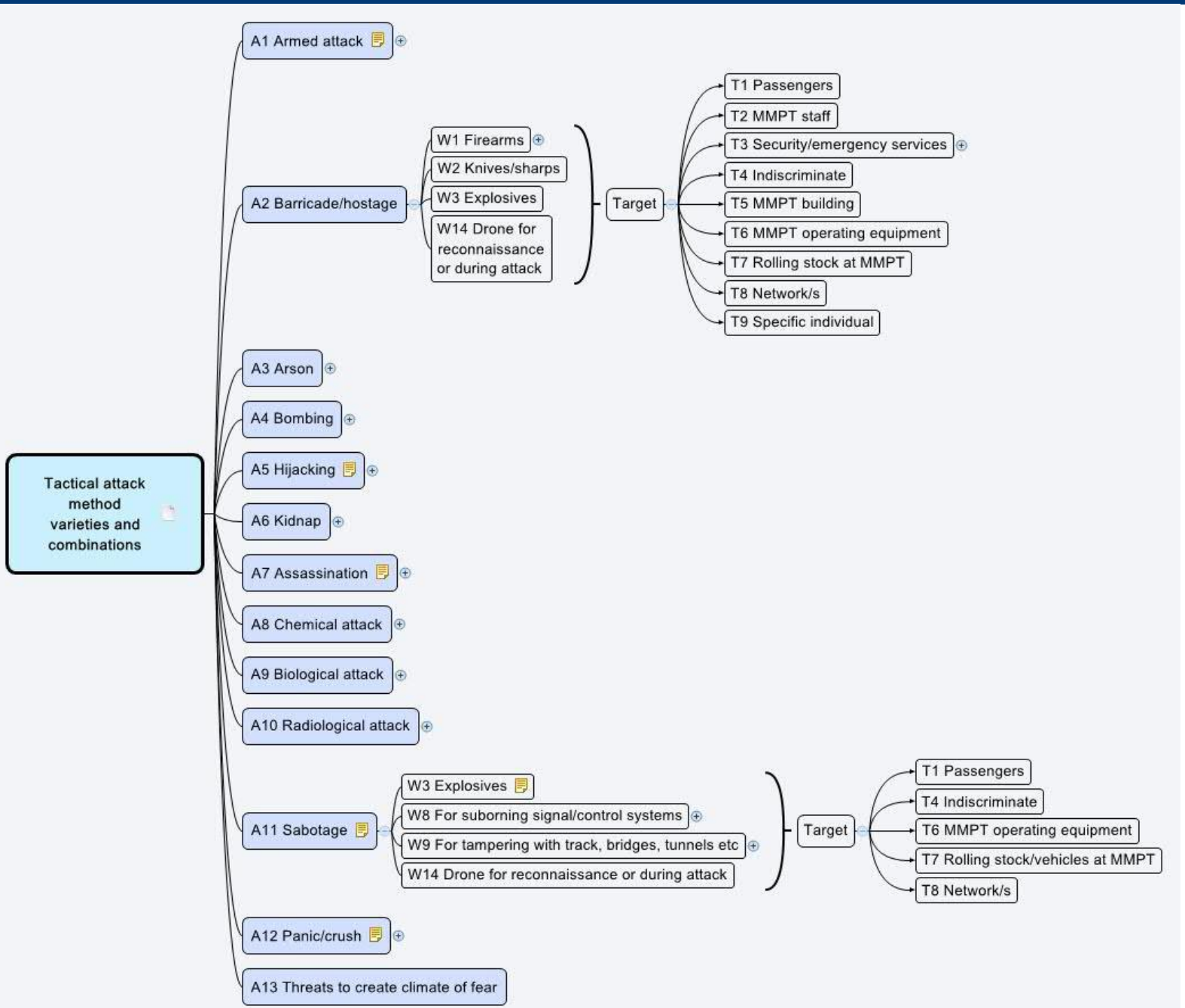
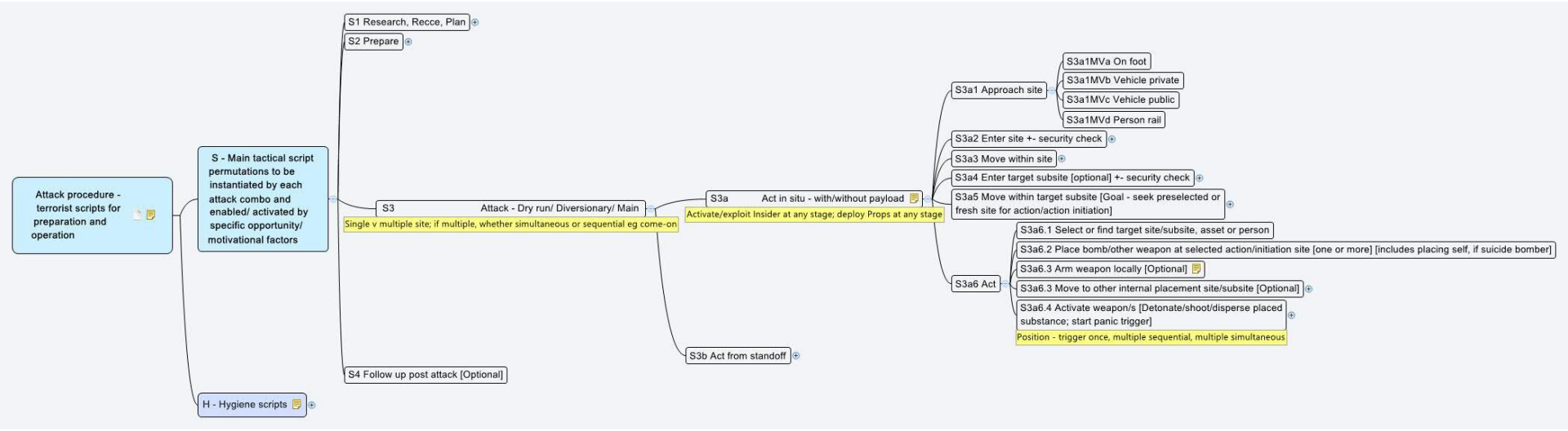
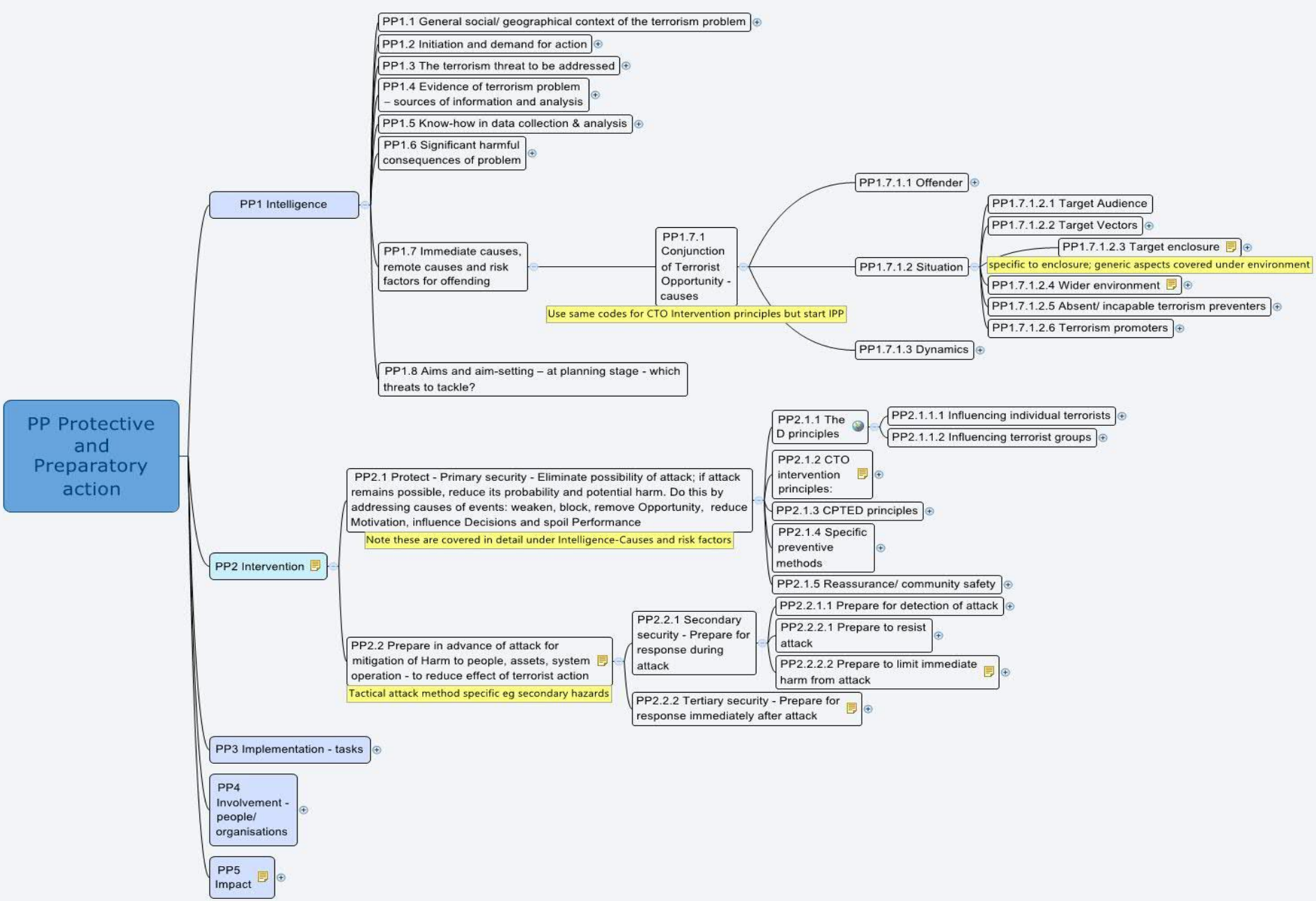
CAF: Illustrations I



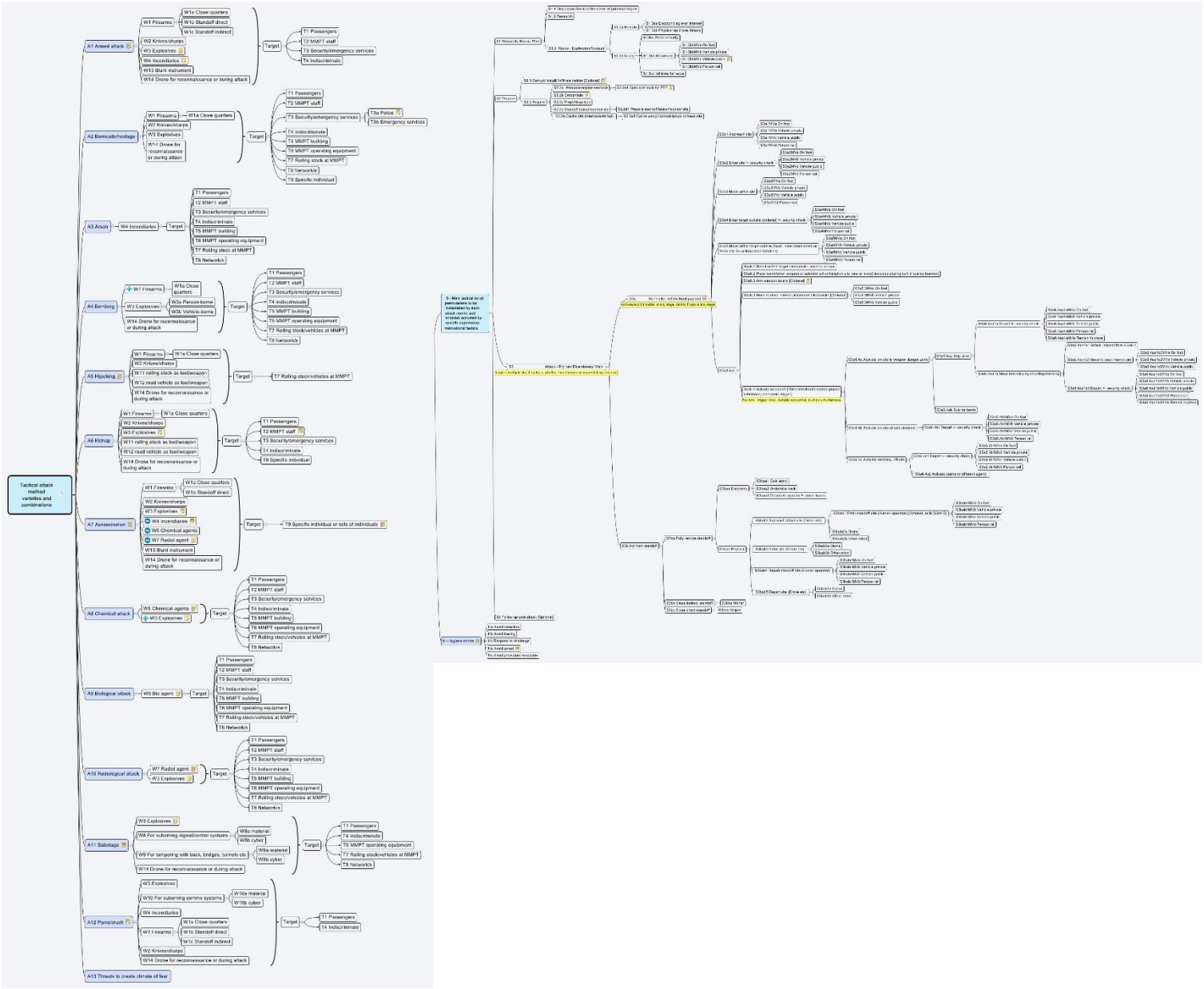
CAF: Illustrations II



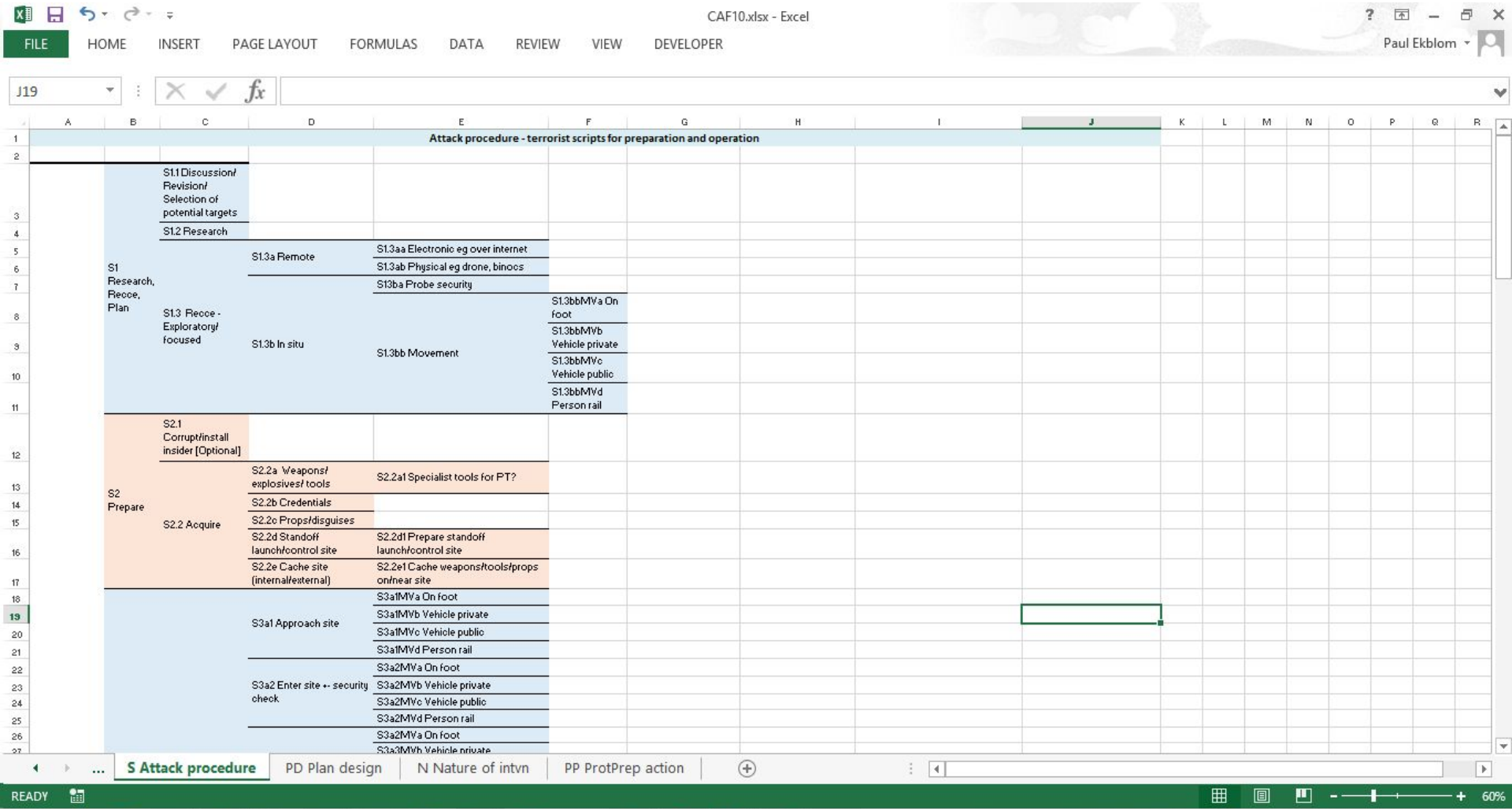
CAF: Illustrations III



CAF: Illustrations IV



CAF: Illustrations V



Using the CAF
Opportunities & Challenges II

- How to handle the excessively large number of theoretically plausible possibilities (the 'state space explosion' in attack opportunities and in interventions to block them)
- We need to develop a way of rating the probabilities x harm of the possibilities, so we can prune the branches of the tree
- Currently no prioritisation of information in the CAF in terms of quality and evidential basis
- We need to go beyond Maryland Scale to develop a rating/ranking schema to cover theoretical and experiential knowledge

Thank you for your Attention

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