

BAPCO²⁰²⁰

The Annual Event for Public Safety Technology

10 - 11 MARCH 2020

RICOH ARENA, COVENTRY

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Public safety technology: evaluating, understanding and developing a future vision for use.

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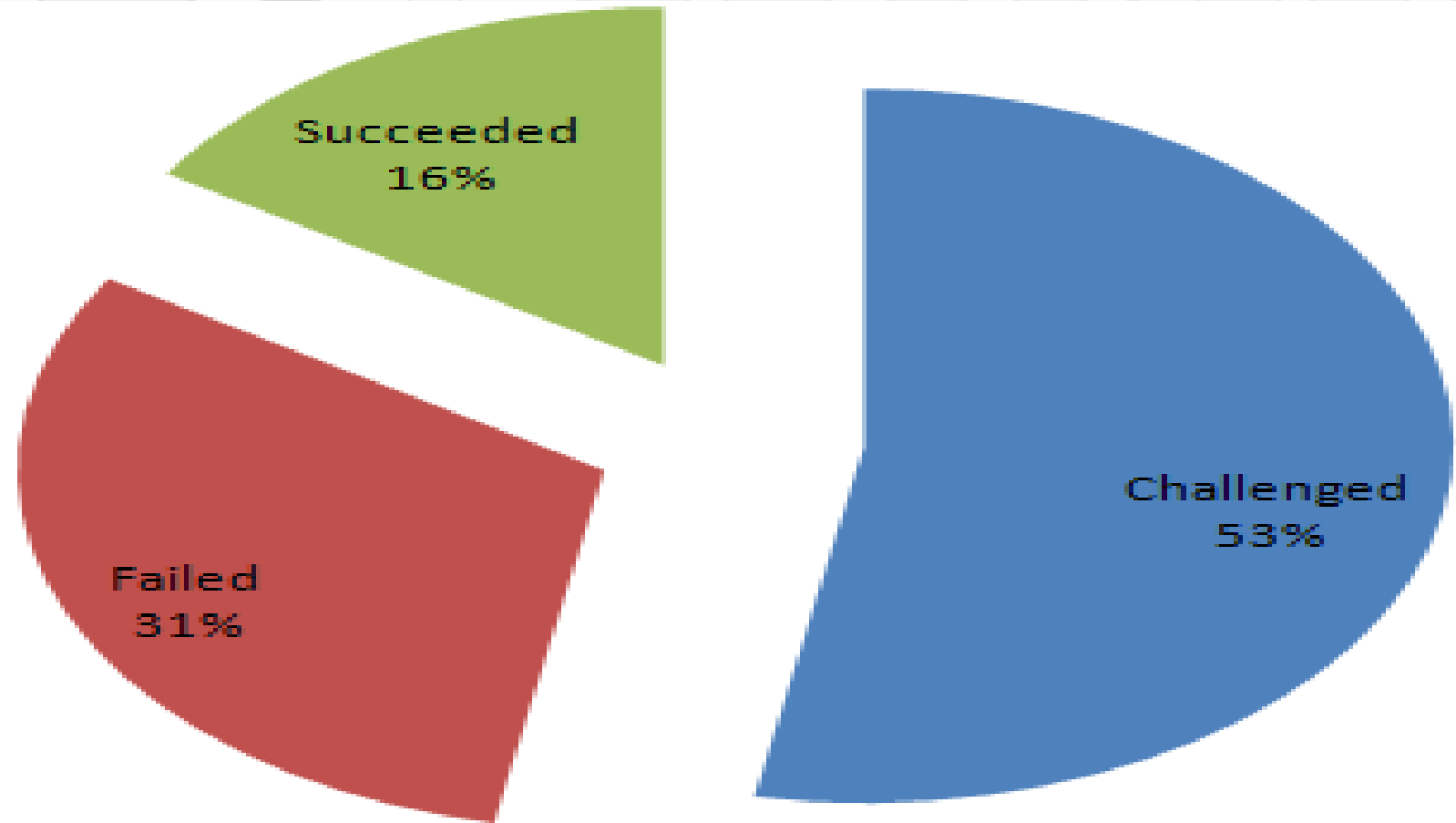


- Outline a framework – based on experience and research – which may help to bridge the gap between expectations and reality in ICT development and project delivery.
- Give examples of the process – how it has been used and is being developed in the context of mobile technologies in public safety

Why are we not happy with our tech?

- Emergency Services are mobile and so should be pretty good at mobile technologies.
- And they are in common use – BWV, MDTs, ANPR, Smartphones, Tablets, Laptops, Forward Command Vehicles....
- But, we seem to be unhappy with them and:
 - Always playing catch-up.
 - Always chasing the next, best thing.
 - Always engaged in new projects to deliver that final step-change.

CHAOS.....



A view from practice

- Benefits difficult to identify, measure and realise.
- Benefits risk identification and reporting – most project managers don't want these on their risk register and are not accounted for.
- Politicisation of ICT project with benefits overblown at commissioning stage & not used as a control mechanism during the project.
- Managing benefits across projects, programmes and portfolios – where do you manage?
- Traditional approaches to benefits management don't fit with transformational, agile or continuous improvement.
- Additional benefits developed during implementation often not identified and therefore not measured
- Realistic monetisation of benefits/ measurement problematic.
- Projects doomed to succeed.
- Top down with voice of the user not considered.

A Framework for change

- The ASEF (Activity Systems Evaluation Framework) has been developed by the AIMTech Research Centre at the University of Leeds, based on collaboration with Emergency Services over an extended period of time.
- It is based on our practical development work with blue light services as well as on academic research in order to help understand how people and technologies can better handle information in what are often fast-paced and pressure situations.
- It is a reaction to isolated projects, to one off solutions, to technologies being imposed and evaluations coming after the fact.

Understanding on four levels

- A workshop based process to tie technology development to the organizational setting at 4 levels:
- Technology projects and capabilities
- Key work tasks
- Organizational strategy
- Wider set of linked organizations and objectives

Characteristics

- Ongoing
- Multi – voiced
- Participative
- Co-produced
- Situated in practice
- Benefit focused
- Tailored to organizational priorities and setting
- Not a project plan



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So, what does it look like?



Outline of the process

- Workshop based
- Focus on key organizational priority areas
- Diverse participants (inter service / intra service)
- Map process(es) 'as-is'
- Provide inputs to drive evaluation
- Re-map 'as-can-be' to inform strategy, project development and wider links into partner organizations

1. Identify a work process (activity system/ scenario) which can be improved by the use of better ICT / IS – usually from either technical advance or from benchmarking.
2. Identify future ICT capabilities relevant to the process (vendor driven, best practice elsewhere, internal planning)

3. **Extend** ASEF Catalogue of 'benefits' (documentation, interviews, projects reviews) multiple levels of analysis:

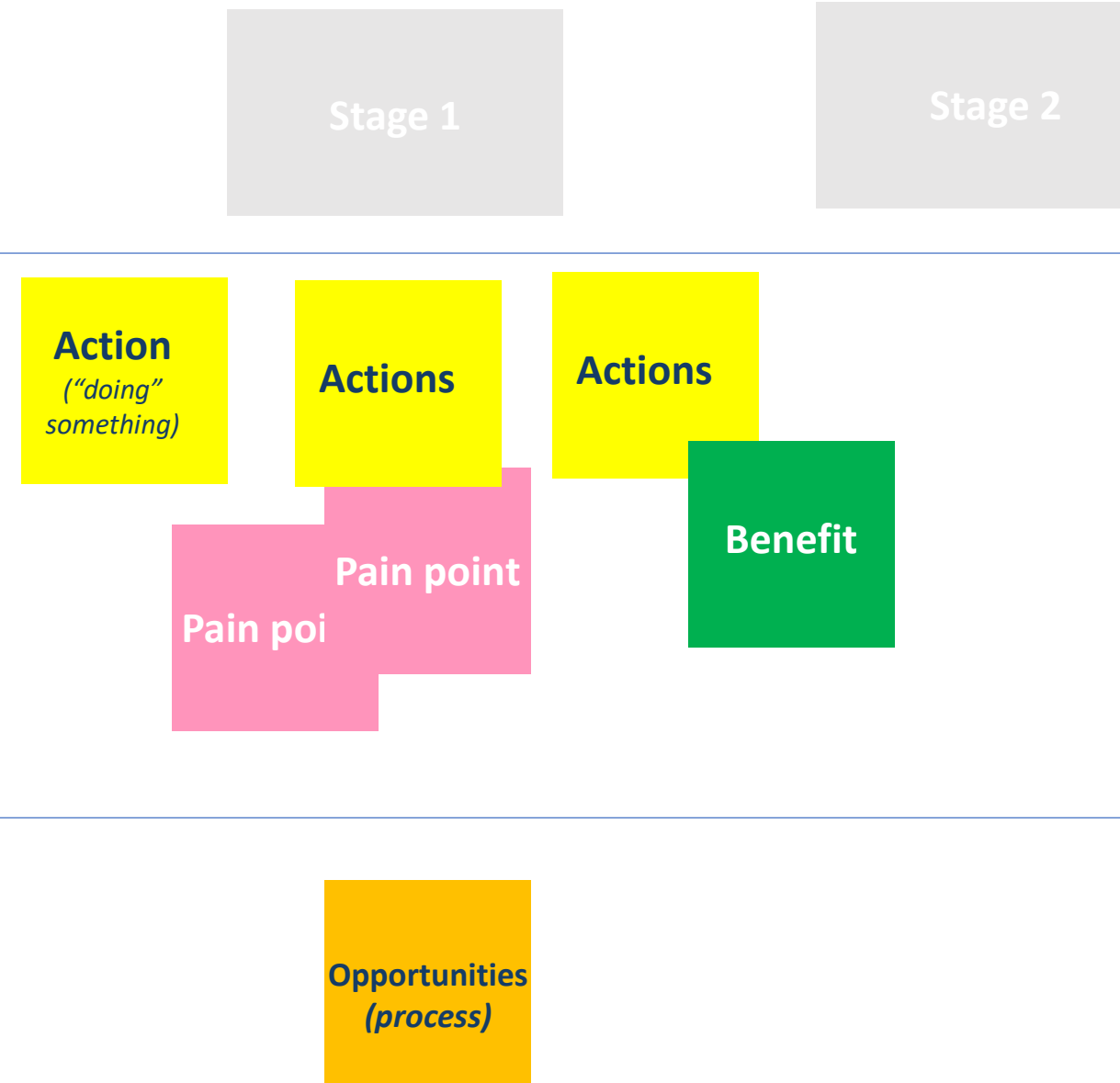
- Tool Level
 - Work Activity Level
 - Systems of Systems Level
 - Linked Activity Systems Level
-
- Potential benefits (motivations for the use of technology) can be seen at each level. Use the language of users.

1. Map the process / activity system 'as-is', involving key stakeholders, and highlight

- Stages
- Pain points (work around, disruptions, shadow systems) – discussion of why (contradictions)?
- Opportunities
- Benefits mapped to specific points in the process (use pre-validated benefits or developed in the process as it is charted)
- Prioritisation of benefits

Visualising a scenario's process.

- Holistic view of the process
- Workarounds (shadow practices)
- Pain points (disruptions)
- Differences between services
- *This will be a messy diagram, but that's OK.



Linking benefits to a process

- **Selection of benefits** from pack and placing on relevant element of the work activity.
- Also have **blank cards** for alternative or additional benefits.
- **Blue Cards** for non- police partners.
- **Open debate**, discussion and consensus building of where the influence of the technology is manifested.
- **Prioritisation** (5 red stickies each – two iterations – to create consensus and focus)
- Identification of barriers to realisation and challenges (tensions, disturbances, key considerations).



Process: The Workshop



2. Provide 'stimulus' of near to future ICT capabilities

3. Re-map the process as a 'future-state' attempting to use technology and IS / ICT advances to

1. Address pain-points, realise opportunities
2. Retain existing areas of benefit and contribute to future gains

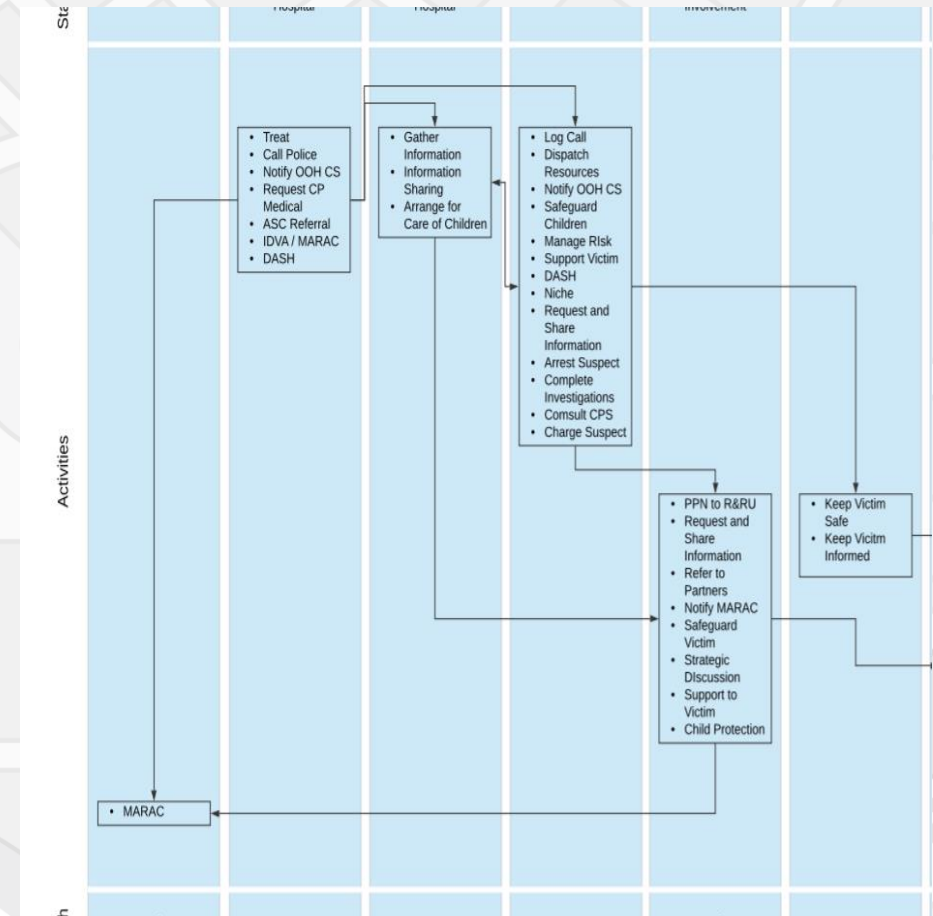


Process: Post Workshop

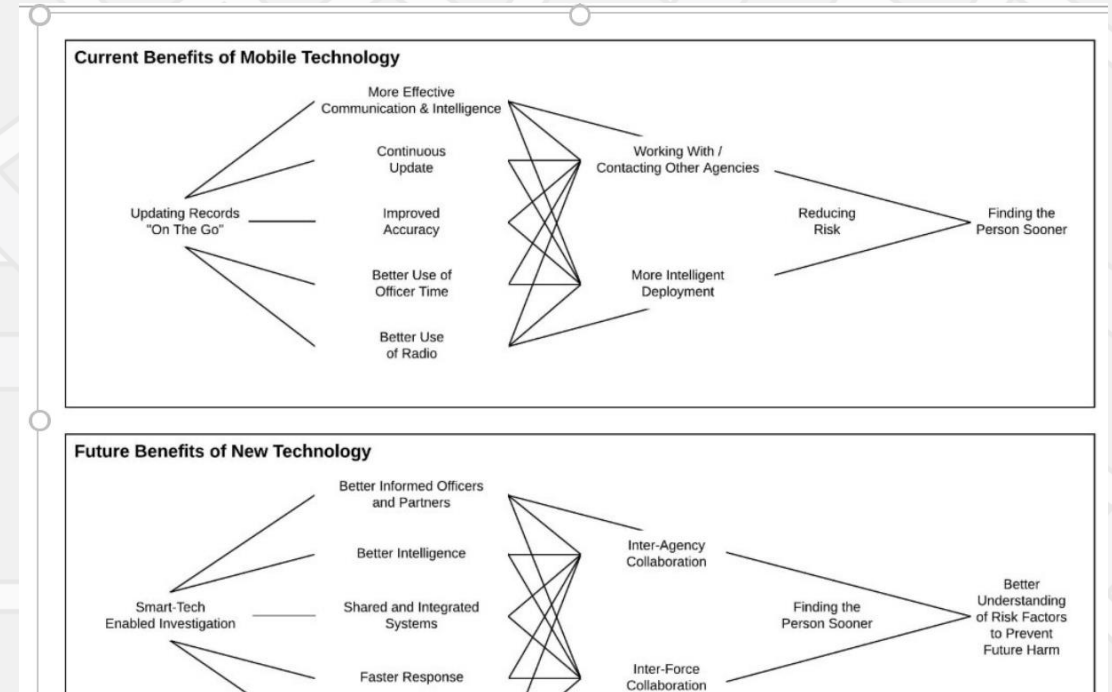
1. Document: Produce process maps & commentary
2. Consensus view of process 'as is' and as 'will be'
3. Confirm collaborative agreement on short term actions (owned by end users)
4. Consider and agree links to other projects and activities
5. Communicate



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5. Produce Benefit Maps
6. Identify prioritised set of benefits to be measured (understanding where they will be measured);
7. Disruptions and underpinning contradictions identified (within each process and between current and future); and
8. Congruences (retarding change) identified.
9. Agree Review process time frame



ASEF Tools are available to support this process

Next Steps

- Further work with police and partners agencies;
- Extending to other sectors and areas (please talk to us if you would like to run a workshop with us);
- Workbooks and tools will be available shortly to support the process; and
- Academic papers discussing links to systems theory, lean, design thinking, agile development, and process analysis.

Realising Mobile Futures: Policing, Information & Data, Tuesday 31 March 2020

Time: 8:30am - 5:00pm

Venue: [Royal Armouries Museum, Leeds](#)

Pre-Conference Dinner and roundtable discussions on Digitalisation in Policing
Date: 30th March 2020 (The dinner is kindly sponsored by Motorola.)

Time: 6:30pm - 9pm

<https://tinyurl.com/yx7llcp7>



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