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DELIVERABLE 1.4

Report on results of DesignLab 1

Training requirements to support Toolkit 1 implementation

CONTRIBUTORS

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REVISION HISTORY

VERSION	DATE	REVIEWER	MODIFICATIONS
1.0	28/10/2019	Dawn L. Ellams	Initial version
2.0	30/10/2019	Andrew B. Wootton & Caroline L. Davey	Formatting and minor edits
3.0	04/08/2020	Andrew B. Wootton & Caroline L. Davey	Results & analysis additions

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1   Introduction

DesignLab 1 on Predictive Policing was held in Salford on 24 September 2019. The Cutting Crime Impact (CCI) Consortium attended and participated in the DesignLab (see Agenda, Appendix A). The DesignLab was designed and facilitated by the team from the University of Salford. Working with LOBA, and with evaluative feedback from DSP, EFUS and DPTI, a detailed protocol for running a 3–4-hour DesignLab was developed and trialled, along with supporting materials, and results recording procedures (D1.3).

The aim of the DesignLab was to support problem framing around the capture requirements and contextual data related to the Prevention, Investigation and Mitigating (PIM) toolkit on Predictive Policing. The DesignLab sessions were designed to guide the Consortium through a structured innovation and concept generation process, including initial feasibility testing of toolkit ideas.

The purpose of the DesignLab was to ensure that development of the Predictive Policing PIM Toolkit is evidence-based, and end-user led, maximising acceptance and successful implementation. The method balances a concern for understanding current or past practices with a concern for envisioning alternative or future practices.

2 DesignLab within the CCI design development process

The DesignLab fulfils the function of analysis and synthesis of gathered requirements in a collaborative manner. In the overall process of CCI, the DesignLab falls within the "Define" phase and bridges the project work into the "Develop" phase, where the solutions that will form the toolkits are developed (see figure 1).
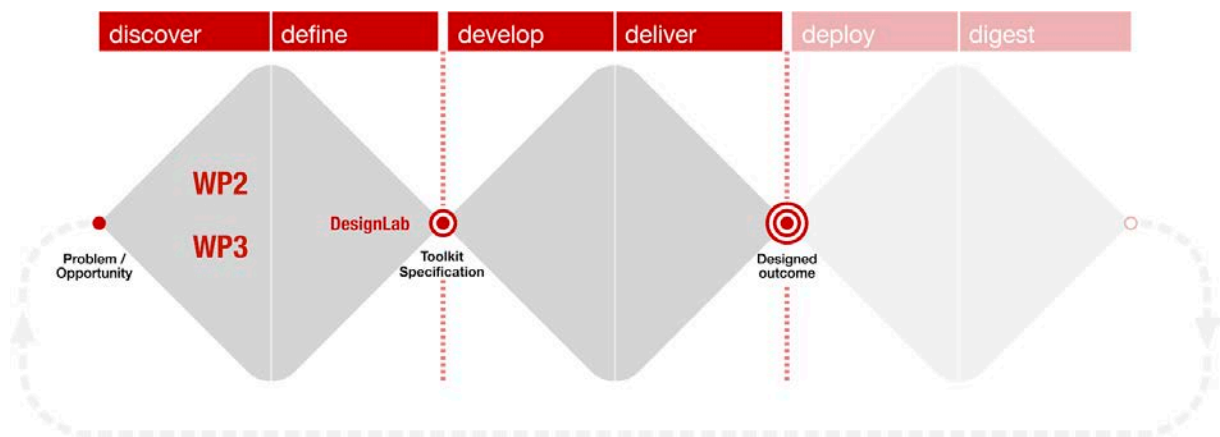

Figure 1. DesignLab within the CCI design development process

The DesignLabs resulted in a number of concepts that gave rise to "solution directions". These directions were then discussed between USAL and the LEA partner and developed into a Toolkit Specification. The Toolkit specification defined the purpose, users, content and function of the proposed toolkit.

CCI method: What is a DesignLab?

The CCI DesignLab is a three-hour workshop to generate ideas based on an understanding of the LEA context and issues / problems that was designed by USAL specifically for CCI. Concentrating on a CCI focus area, each DesignLab helped generate ideas /solution concepts relevant to two LEAs—who acted as the 'client' in the design process.

Rules of engagement to support creativity are communicated to participants (e.g. responding "Yes, and…", rather than "Yes, but…" when discussing each other's' ideas) and a warm-up activity used to demonstrate such principles and create the right mind-set.

The DesignLab is structured into five stages — each involving practical activities:

- *Stage one* – to enable DesignLab participants to understand the requirements capture research conducted by the LEA, the two LEA 'clients' give a short presentation of their context and issues/ problems—ending with 6 "Problem Statements" (In What Ways Might We…?)

- *Stage two* – explores the Problem Statements identified by the LEA clients using a technique called Abstract Laddering. This is a way of reconsidering the problem statements by broadening their focus (considering "why?") or narrowing their focus (considering "how?"). The method was adapted from the Luma Institute.

- *Stage three* – supports design solution ideation. For each Problem Statement, participants are given a short amount of time to describe and/or sketch an idea that addresses the problem.

- *Stage four* – supports participants in concept design development, prototyping and design communication. Participants work in teams to develop two ideas chosen from the Ideation and Concept Generation session into design concepts or prototypes. These concepts are captured on Design Concept Sheets.

- *Stage five* – supports evaluation of the developed design concepts. Each concept is explained in a short presentation— 'pitch'—to all DesignLab participants. Following these pitches, participants vote for their first and second favourite ideas. The results of the voting are collated and fed back to the client LEAs to support decision-making on concepts to take forward for PIM Toolkit development.

Source: *CCI D1.3 DesignLab Protocol*

3   Results & Analysis DesignLab 1

The results of DesignLab 1 on Predictive Policing are presented for each stage of the DesignLab process described above. The 'client' LEAs were:

- Landeskriminalamt Niedersachsen – LKA

- The National Police of the Netherlands – NPN

The results and analysis outlined in this public document provide insight into the process for generating design concepts. It should be noted that the results of the requirements capture work is presented in confidential reports—D4.2 and D4.3 LEA context and requirements. Confidentially enabled LEAs partners to share within the CCI consortium details about problems / issues.

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4   LEA results – LKA

To enable DesignLab participants to understand the requirements capture research conducted by the LEA, the two LEA 'clients' gave a short presentation of their context and issues/ problems—ending with 6 "Problem Statements" (In What Ways Might We…?).

4.1   LKA presentation

A summary of the problem statements for the LKA's research on Predictive Policing is provided in the box below.

Summary: LKA context & requirements for Predictive Policing

The LKA conducted eight observations across different police shifts (8-hour shift), enabling the researcher to observe patrolling officers from at the start of the shift, on patrol and at the end of the shift. The LKA identified six problem statements for the DesignLab, stated using the form "In what ways might we…(IWWMW)":

- *In what ways might we…* Identify the needs of officers that PreMap must meet?"
- *In what ways might we…* Embed predictive policing within patrol briefing?
- *In what ways might we…* Implement an evidence-based patrol philosophy?
- *In what ways might we…* Help police officers understand the value of prevention?
- *In what ways might we…* Enable different roles to work together effectively?
- *In what ways might we…* Be a role model to others in relation to predictive policing?

Source: Full report available in D4.3 LEA context and requirements for LKA (confidential report)

4.2   Abstract Laddering – LKA

The Problem Statements identified by the LEA clients were explored in the DesignLab using a technique called Abstract Laddering. This is a way of reconsidering the problem statements by broadening their focus (considering "why?") or narrowing their focus (considering "how?"). The teams were allowed to generate further problem statements if they felt that this would help broaden their thinking or improve idea generation. The results of Abstract Laddering were summarised on sheets during the DesignLab, and critically reviewed outside the DesignLab by USAL.

The resulting DesignLab discussions and USAL review meeting comments are briefly presented below:

Results of Abstract Laddering – LKA client		
Problem statement	Summary of 'How?' and 'Why? responses	USAL comments
'IWWMW…Enable different roles to work together effectively?'	By defining who and how PreMap should be used or by developing an effective information sharing system.	Relates to how LEA processes and procedures might be improved.
IWWMW… Identify the needs of officers that PREMAP must meet?'	By finding out what police officers really want from PreMap or by using PreMap in more efficient ways or making the product better.	Involves properly integrating PreMap into policing.
'IWWMW…implement an evidence-based patrol philosophy?	Patrolling in a way that helps to prevent crime is the aim	
'IWWMW…Embed predictive policing in patrol briefings?'	To make PreMap useful to police officers	The aim of PreMap is to get officers to visit 'risk areas.' Instructions about where to patrol can only really be given during the briefing session and yet PreMap is not really incorporated into briefing sessions.
'IWWMW… help police officers understand the value of prevention?'	By training influencers to deliver training on the value of crime prevention	Who / what is an influencer? Why do they need to be involved in the training?
'IWWMW… Handle the limits of predictive policing and be a role model to others?	By providing more valid data	

4.3   Idea generation

To support design solution ideation, participants were given a short amount of time to describe and/or sketch an idea that addresses each problem. USAL reviewed the ideas, including using the Waze App for PreMap; redefining the training curriculum to implement an evidence-based patrolling philosophy; and describing patrolling more explicitly as a means for reducing crime. USAL critically discussed some issues with technology-led solutions and were interested in an idea to incorporate PreMap within briefings.

4.4   Design concepts

The design concepts produced by each team were presented to all DesignLab attendees. Design presentation sheets (A2 sized) were produced to communicate the overall concept; how it functioned; user interaction storyboard; and any technical features (see Appendix B). The concept was then verbally explained to DesignLab participants in the form of an 'elevator pitch' or short presentation. Presenters were allotted 2 minutes for their pitch, after which the audience were able to ask questions about the proposed design concept.

DesignLab 1 generated, developed and presented the following four Design Concepts relevant to the LKA's requirements and context.

Design pitch 1	
Team name	Alpha
Problem statement	In what ways might we… implement an evidence-based patrol philosophy?
Concept name	MapApp
Concept overview	An application for police officers that tracks officers' routes and time spent dealing with incidents. App will provide officers with an overview of incidents, guides patrolling within a shift and a generates shift report on patrolling. However, the tracking of police patrolling does raise ethical and legal issues.

Design pitch 2

Team name	Bravo
Problem statement	'IWWMW… help police officers understand the value of prevention?'
Concept name	How stupid not to intervene
Concept overview	This is a video to communicate the value of crime prevention to police officers. The video explains that burglaries can be prevented through the right intervention and outlines the role that police, and other stakeholders should play.

Design Pitch 3

Team name	Alpha
Problem statement	'In what ways might we… Enable different roles to work together effectively?'
Concept name	SpiderMap
Concept overview	This is a process to communicate problems to a network of stakeholders. The problems are communicated and addressed via face-to-face meetings and WhatsApp groups. The aim being to support the stakeholders in tackling crime problems.

Design pitch 4

Team name	Bravo
Problem statement	In what ways might we… Identify the needs of officers that PreMap must meet?'
Concept name	Technology Tinder

Concept overview	Test your technologies with Technology Tinder!
	This is an app to collect data on user / police needs and preferences. Used by those developing new technologies, the Smartphone app presents options to police officers / users who indicate their preferences. It is an alternative to a questionnaire.

4.5   Post DesignLab review — Identification of potential Concept Direction(s)

All the ideas from DesignLab 1 and the results of the 'Abstraction Laddering' exercise were analysed by USAL, resulting in the identification of one to four Concept Directions for each LEA. The Concepts Directions were reviewed by the LEA and one selected to develop, prototype and demonstrate. The results are presented for the LKA, followed by NPN.

4.6   Concept Direction – LKA   DRAFT

One clear Concept Direction was identified for the LKA — an enhanced briefing tool designed to support police officers in their duties by providing relevant data, but also enabling officers to draw on their own experience with regard to planning patrols.

In a review meeting to discuss the Concept Direction, USAL and LKA critically reviewed the proposal (see box below). After the meeting, the LKA discussed the Concept Direction with its senior managers—and it was approved for development, prototyping and demonstration.

The enhanced briefing tool addresses multiple issues identified from the LKA's requirements capture research and offers significant benefits to LKA — including improved communications within and between policing shifts.

Concept direction: LKA Predictive Policing Tool

Concept title

Integrating PreMap into Policing intelligently – Enhanced briefing

Background

The LKA does not currently provide training in crime prevention for police patrol officers, which affects their perception of the benefits of using the LKA predictive policing system, PreMap.

Problem statement

In What Ways Might We… make the benefits of PreMap visible and more useful for police officers?

Potential questions to address

- What are the basic PreMap usability issues
- What is the aim of PreMap? (i.e. is it to increase arrests or reduce offending?)
- What are the needs of officers that PreMap should meet?
- How might the human components and ICT / machine components better complement each other (e.g. human (patrol officer) validation of PreMap predictions)
    - What is the human officer view of the areas PreMap predicts problems will occur?

Consider predictive policing from a Human-centred perspective:

> *"The purpose of predictive policing (PreMap) is to support the human police officer who is **responsible** for patrolling / policing an area or neighbourhood."*
>
> *USAL*

Next Steps

1. Gain a deeper understanding of and insight into officer briefings with the aim to explore ways to more effectively integrate PreMap into patrol / shift briefings
    - Trial such a tool in one policing area / district / neighbourhood

2. Gain greater understanding of the precise purpose of patrolling — What value does it provide?

Source: Concept Directions LKA – internal report, USAL

5   LEA Results – NPN

5.1   NPN Presentation

A summary of the main themes and problem statements for NPN's work on Predictive Policing is provided in the box below.

Summary: NPN context & requirements for Predictive Policing

The NPN identified six problem statements for the DesignLab, stated using the form "In what ways might we…(IWWMW)":

- *In what ways might we…* "Understand and involve different stakeholders"

- *In what ways might we…* "Focus on other types of crime (not or under reported to police)"

- *In what ways might we… "*Combine human & system intelligence"

- *In what ways might we…* "Increase transparency of predictive policing"

- *In what ways might we…* "Include other data than police"

- *In what ways might we…* "Visually represent information or data."

Source: Full report available in D4.2 LEA context and requirements for NPN (confidential report)

5.2   Abstract Laddering – NPN

The results of Abstract Laddering were summarised on sheets during the DesignLab, and critically reviewed outside the DesignLab by USAL. The resulting DesignLab discussions and USAL review meeting comments are briefly presented below:

Results of Abstract Laddering – NPN client		
Problem statement	Summary of 'How?' and 'Why? responses	USAL comments
'IWWMW...'IWWMW.. include other data than police?'	By evaluating the data	Relates to concerns about value of data. Tendency to solve issues by adding more data.
IWWMW… increase transparency of predictive policing?'	Because this will decrease criticism; increase accountability and legitimacy; increase public understanding.	
'IWWMW...combine human and system intelligence?' ...to use advantages of human and computers.	Because this will use the advantages of human insight and computer input.	Value of human input.

5.3   Idea generation – NPN

To support design solution ideation, participants were given a short amount of time to describe and/or sketch an idea that addresses each problem. USAL critically reviewed the ideas, including adding data from victimisation surveys to predictive policing systems; enabling citizens to input data to systems; representation of data tailored to different stakeholder groups; and recommendations for action related to data inputted.

5.4   Design concepts – NPN

DesignLab 1 generated and developed the following four Design Concepts relevant to the NPN 's requirements and context (see appendix B):

Design pitch 5	
Team name	Charlie
Problem statement	In what ways might we… Combine human & system intelligence
Concept name	Complete Intelligence Loop (CIL)
Concept overview	This idea seeks to make the Predictive Policing product better. CIL is a new process that seeks to integrate human intelligence—usually from police officers—into predictive policing. Predictive Police makes use of multiple sources of data and human intelligence, as well as operation a feedback loop system.

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Design pitch 6	
Team name	Delta
Problem statement	In what ways might we… "Include other data than police?"
Concept name	Data Soup
Concept overview	This is a system for mixing data together and delivering it to different stakeholders, who use the data to take actions.

Design pitch 7	
Team name	Delta
Problem statement	In what ways might we… "Understand and involve different stakeholders?"
Concept name	The First Supper

Concept overview	This is a process that links to the previous idea "Data Soup". It is a round table meeting, where stakeholders come together to solve a specific problem. Monthly meetings include coffee, pleasant atmosphere, etc.

Design pitch 8	
Team name	Charlie
Problem statement	In what ways might we…"Understand and involve different stakeholders"
Concept name	Live my job
Concept overview	This is a job swap between key stakeholders to build and maintain relationships. It is used to share data, understand processes and support action by different agencies.

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5.5   Concept Directions – NPN

USAL proposed one Concept Direction for the NPN.

Concept direction: NPN Predictive Policing Tool

Concept title

Supporting an intelligence-led approach to police patrolling

Background

Police officers do not find the predictive policing system useful.

Rather than predictive, gain an understanding of what is happening / spot patterns and be aware to act.

Problem statements

In What Ways Might We… present information to police officers in a usable format for them to act on? When, What and How do we present information?

In What Ways Might We… Develop a way to integrate crime forecasting maps into the daily briefing process for officers patrolling the urban realm?

Potential questions to address

- How does crime data / crime forecasting inform patrolling?
  - What informs patrolling routes / decision to patrol certain routes?
- What useful data should be incorporated?
- How is information communicated in policing briefings (i.e. visual maps /images)?
- NOTE: Information needs to be 'useful' and 'understandable' to police officers = develop usability testing around officers use of maps.
- What is the impact of patrolling on system learning? When officers patrol areas based on predictions, do they / don't they record their patrolling? (i.e. Is the impact of their presence recorded? This might improve reliability of predictive data).

Consider predictive policing from a Human-centred perspective:

*"The purpose of predictive policing (PreMap) is to support the human police officer who is **responsible** for patrolling / policing an area or neighbourhood."*

"System intelligence needs to be combined with field officers – develop a system that is useful and accessible to the people who are / need to use it"

USAL

Next Steps

1. Gain a deeper understanding of patrol / shift briefings with support from DSP.

Source: Concept Directions NPN – internal report, USAL

The Concept Direction was revised by NPN, in collaboration with DSP, to focus on Community Service Officers responsible for patrolling in the Netherlands. The Community Service Officer (CSO) provides support in crime prevention, investigation, and response where full police powers are not necessary. They assist police officers in law enforcement. In the Dutch police, CSOs are referred to as Buitengewoon opsporingsambtenaar (BOA) or "light blue police" due to the uniform they wear.

Concept direction Revised: NPN Predictive Policing Tool

Concept title

Supporting an intelligence-led approach to patrolling – patrolling undertaken by police, Boas or other agencies

Background

Predictive Policing currently informs patrolling of police officers, but Police officers do not find the predictive policing system useful. There are also not enough officers to patrol areas and respond to the predictive policing data in the way it is needed.

Concept

Rather than predictive, the CAS system needs to be made useful to other agencies with the resources to use and act on the data. These agencies can gain an understanding of what is happening / spot patterns and be aware to act / patrol instead of or in relationship with the police.

The current purpose of predictive policing is to support the human police officers who are responsible for patrolling / policing of an area or neighbourhood. However, the police do not have the resources to respond and act on CAS predictions. if predictive policing is to be a successful tool NPN feels (from the insight gained during requirements capture) the focus should be on predictive crime prevention through a multi-agency approach.

System intelligence needs to be combined with data exchange with local government and police – develop a system that is useful and accessible to the people who have the resources / can act on it, such as BOAs.

Problem statements

In What Ways Might We… "Present information to police partners in a usable format for them to act on? When, What and How do we present information?"

In What Ways Might We… "Develop a way to integrate crime forecasting maps into the role of BOAs patrolling the urban realm?"

Potential questions to address

- The role of BOAs

- What informs patrolling routes / decision to patrol certain routes?

- What other partners are already patrolling the public domain

- What useful data should be incorporated?

- How is information communicated (i.e. visual maps /images)?

- NOTE: Information needs to be 'useful' and 'understandable' to police partners = develop usability testing around use of maps.

Next Steps

1. Develop a summary of the role of BOAs
   - Responsibilities and Duties
   - Relationship with police officers
   - Relationship with communities

2. Identify who is already patrolling the public domain
   - The different groups
   - How often and where these groups patrol
   - Data on current patrolling groups routes
   - Do the police already have relationships with these groups, or do they need to be established?

3. Conduct ethnographic (such as, observations of and interviews with BOAs), with support from DSP.

Source: Concept Directions NPN – internal report, USAL

6   Next steps and reflections

The Concept Directions—one for LKA and one for NPN—were developed into a Toolkit Specification that outlined the LEA tool (see Deliverables D4.4 and D4.5). Maximilian Querbach, LKA, reflected on his experience of the process (presented in CCI Newsletter 2):

Reflection: LKA on CCI design process

Maximilian Querbach, is a researcher at LKA, he led on the requirements capture research for the DesignLab around Predictive Policing. Below he gives an account of his experience in doing this:

"In order to determine the necessary requirements for the development of a predictive policing toolkit, an open research approach in the form of participatory observations in police patrol service was chosen. My attitude towards this very open approach was initially very sceptical, as I didn't know what the end result would be. In addition, the actual benefit was not obvious to me at first.

Before the research phase had begun, I was already collaborating with colleagues and developing potential toolkits and solutions for problems and needs we saw in our institution. Our project coordinators at the University of Salford recommended us to take a step back and try to enter the research phase unbiased and open-minded.

During my observations, I realised the usefulness of this open design thinking approach, as problems arose and were named that we would not have even considered. The findings were fundamental to the functioning of the entire predictive policing approach in Lower Saxony.

What I have learned as a researcher during this process is that you sometimes have to try to think outside of your profession and the associated assumptions for potential solutions and try to include other possibilities and perspectives for problem solving. Sometimes the supposed problems and their solutions which you define in your scientific "ivory tower" do not always apply to real practice and the specific needs of end-users or recipients. An open-minded research approach can help to identify and further on meet those actual needs with tailored practical crime prevention solutions.

I think the unique characteristic of this approach is that you step out of your sometimes scientifically biased comfort zone and try to open up to new, unconventional paths and integrate them with your own perspectives into a whole.

The collaborative meetings and discussions with partners from other disciplines, as well as the interviews and observations with actual end-users and decision-makers within the police, have given new inputs to the development process due to their individual perspectives and ways of thinking. The entire approach makes it clear that crime prevention is not just the task of law enforcement authorities but requires cooperation between different social- and policy actors and that a holistic and effective concept can only be developed by taking a wide range of perspectives into account".

Source: Maximilian Querbach, CCI Researcher, Landeskriminalamt Niedersachsen (LKA) (CCI Newsletter 2)

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7 Appendices

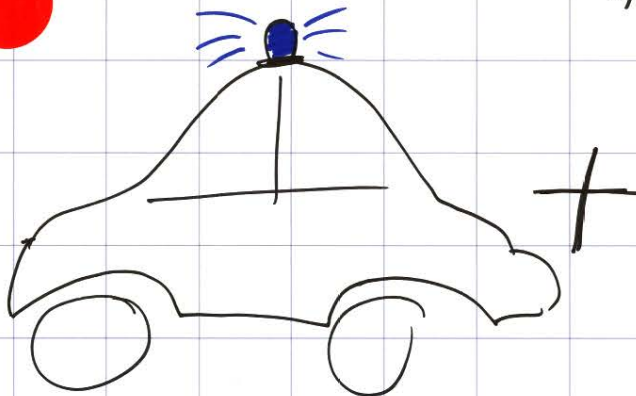A.   DesignLab Agenda

B.   Design Concept sheets

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ON SIGHT DATA

BURGLARY

TRACKS ROUTES
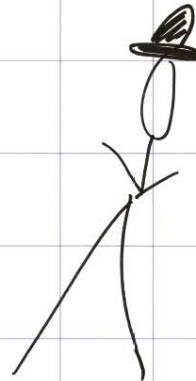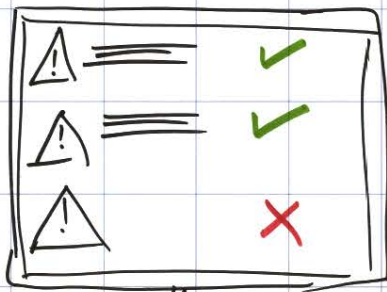
ASB
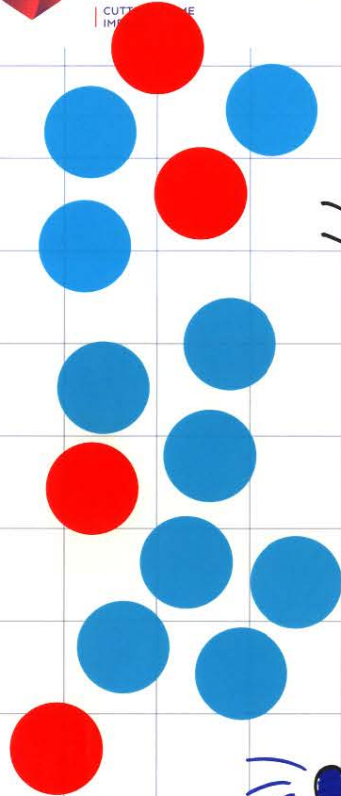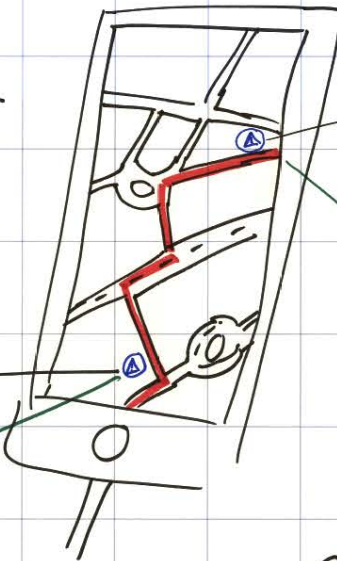
TRACKS INCIDENTS ON SIGHT

FOR CARS

+

FOR WALKING

APP GENERATES OVERVIEW OF THE SHIFT

GOES TO THE SHIFT MANAGER

AN APPLICATION FOR OFFICERS ON DUTY TO TRACK
INCIDENTS, PATROLLING ROUTES AND TIME SPENT
IN EACH AREA. IT IS GPS BASED AND IT
USED BY PATROL OFFICERS WHO CAN SHARE
INFO BETWEEN EACH OTHER AND FOR INSTANCE
SUGGEST ROUTES THAT SHOWS BUT NEED MORE
PREVENTATIVE MEASURES.
WILL FACILITATE SHIFT PROCESS AND PATROLLING
GENERATE SHIFT REPORT AND INFO
WILL GIVE A LIVE OVERVIEW OF INCIDENTS AND CRIMES
IN THE CITY

Idea description / Pitch

Design concept name?

MAP APP

What is it?

An application for officers, on duty that tracks routes and incidents ~~time~~ and the time spent on each area

Who is it for?

Police officers, on patrol. Maybe also community officers and crime prevention officers.

What does it do?

1. Tracks routes
2. " incidents
3. " time spent in each area
4. Suggest routes that have not been patrolled or that need further ~~patrolling~~ preventive measures
5. Enables to see further info (⚠)
6. Generates shift reports

How is it used?

- It is GPS and online-based ~~and~~ and it is used while patrolling.
- Should be used during briefings
- Generates new data & used as a basis for analysis
- Interconnects with police info system

What change will it create?

- ~~App~~ app will change
- Will facilitate shift process
- Live overview of the city

What is needed to enable the concept?

- Change the law (cannot track officers)
- Financing
- External web developers

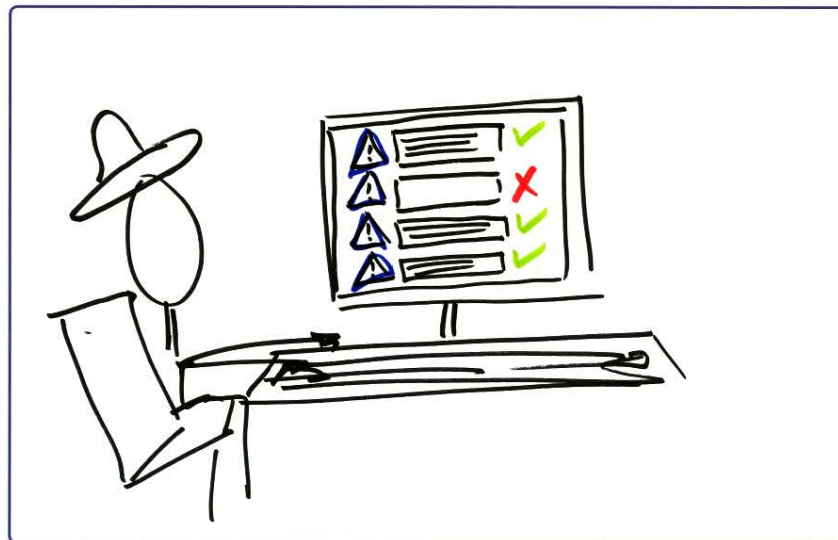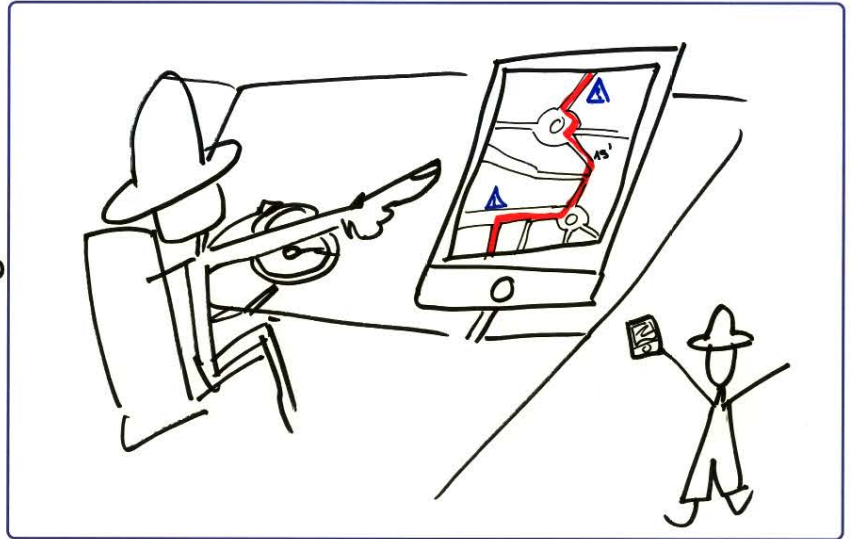TRACK ROUTES

TRACK INCIDENTS

SUGGEST ROUTES

FURTHER INFO

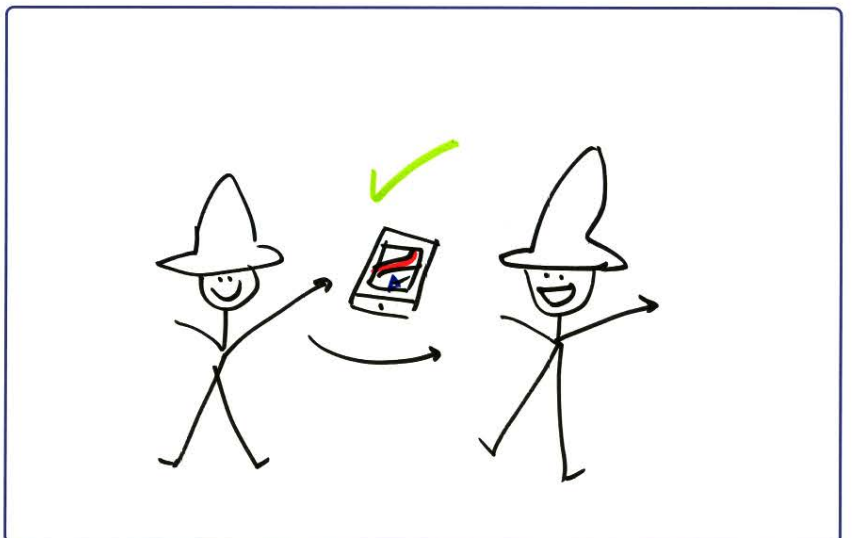TRACKS TIME SPENT

GENERATES SHIFT REPORTS

- TRACKS ROUTES
- TRACKS TIME IN AREA
- REPORT INCIDENTS ON SIGHT
- FOR PATROLERS CAR & WALKING
- ENABLES TO SEE FURTHER INFO
- SUGGESTS ROUTES
- GENERATES NEW DATA

- GENERATES SHIT REPORTS
- EASY BRIEFING
- USED AS A BASIS FOR ANALYSIS
- INTERCONNECTS WITH POLICE INFO SYSTEM

- EASES PROCESS BETWEEN SHIFTS

How stupid not to intervene ?

VIDEO

- About a burglary
- No-one intervenes

- At different points someone intervenes
- Prevents the crime
- Premap helps them!

REWIND — THINGS COULD HAVE BEEN DIFFERENT.

BURGLARY

- friends meet together – discuss the crime.
- criminal in the area – residents in the area? Police?
- criminal goes to window
- criminal leaves the area – on foot or by car
- criminal and friends sell the stuff.
- others buy it
- some sold on to organised crime contacts via dark web

police officer intervenes

police officer with PreMap intervenes better

Design concept name?

How stupid not to intervene

What is it?

video ●

Who is it for?

Option 1
police officers
community police
officers

What does it do?

- Shows how/when to intervene.
- Shows role of police
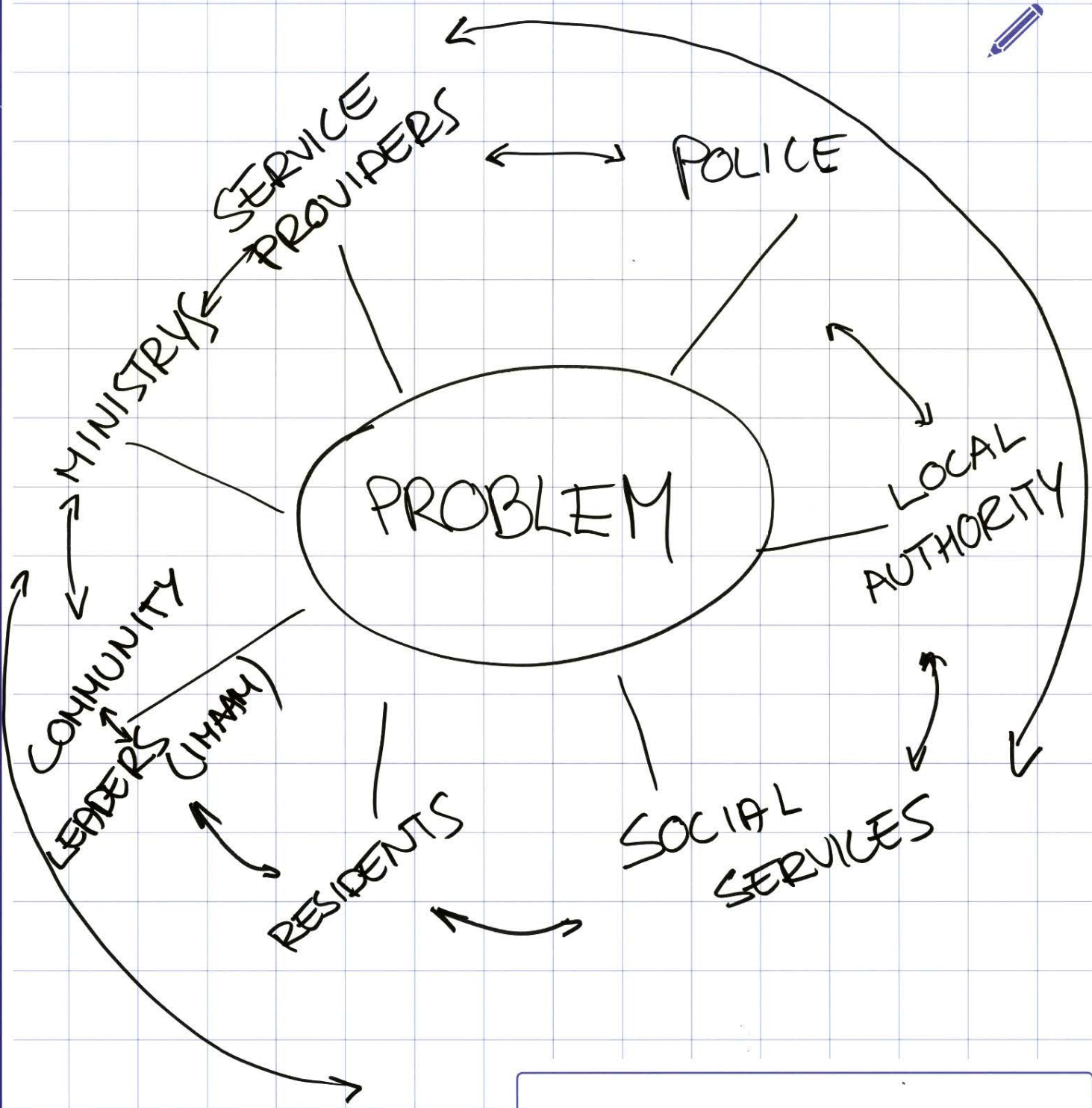- Shows the roles of other stakeholders

How is it used?

watch video

What change will it create?

- Shows how police can stop a crime from occurring in the first place.
- Use the tools that you have to prevent crime

What is needed to enable the concept?

LOBA!

SERVICE PROVIDERS

POLICE

MINISTRYS

PROBLEM

LOCAL AUTHORITY

COMMUNITY LEADERS (IMAAM)

RESIDENTS

SOCIAL SERVICES

- PREDICTIVE AND
community police combined

⅂ We need the power of every one
to prevent crime.

⅃ CRIME WILL DROP
Spa. ctacylor.

Idea description / Pitch

Design concept name?

SPIDER MAP

What is it?

- NETWORK OF DIFFERENT STAKEHOLDERS

Who is it for?

FOR THE PEOPLE!

What does it do?

- FIND PROBLEM ORIENTED SOLUTIONS
- MAP PROBLEMS THAT DIFFERENT STAKEHOLDERS SEE IN THE AREA

How is it used?

- MAILING LIST / WHATSAPP GROUP
- PHYSICAL MEETINGS

What change will it create?

- IMPROVED COOPERATION
- IT ENSURES THAT PATROLING IS MEETING STAKEHOLDERS NEEDS/PROBLEMS
- COORDINATE ACTION (HOLISTIC APPROACH)

What is needed to enable the concept?

- COMMITMENT FROM ALL OF THE STAKEHOLDERS
- DIRECTIONS FOR SHARING INFORMATION

CONNECTING STAKEHOLDERS

IT IS FOR THE PEOPLE

APPLYING DIFFERENT PRESPECTIVES ON SOLUTIONS

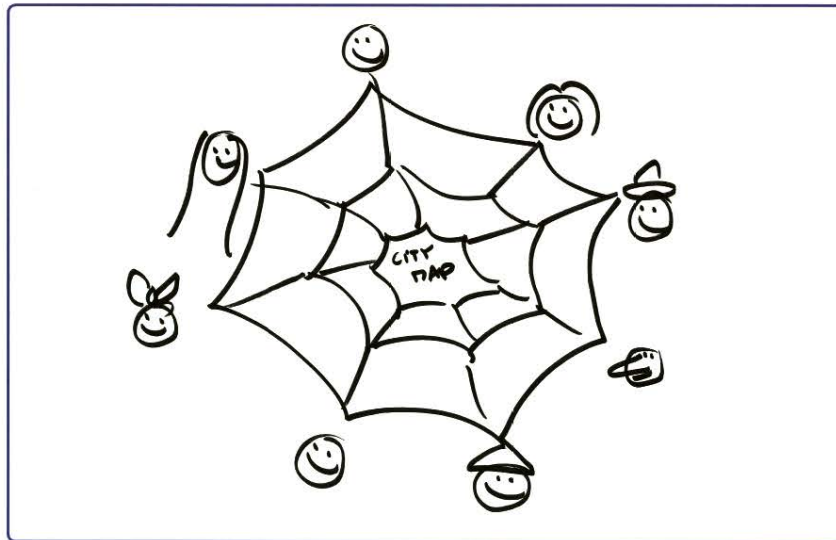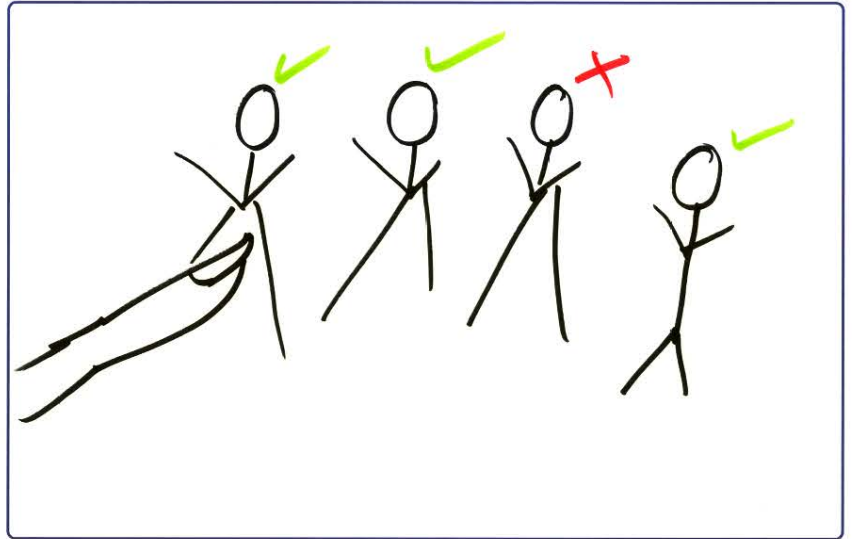PROBLEMS OF DIFFERENT STAKEHOLDERS ARE RECOGNISE

CREATING COMMON UNDERSTANDING
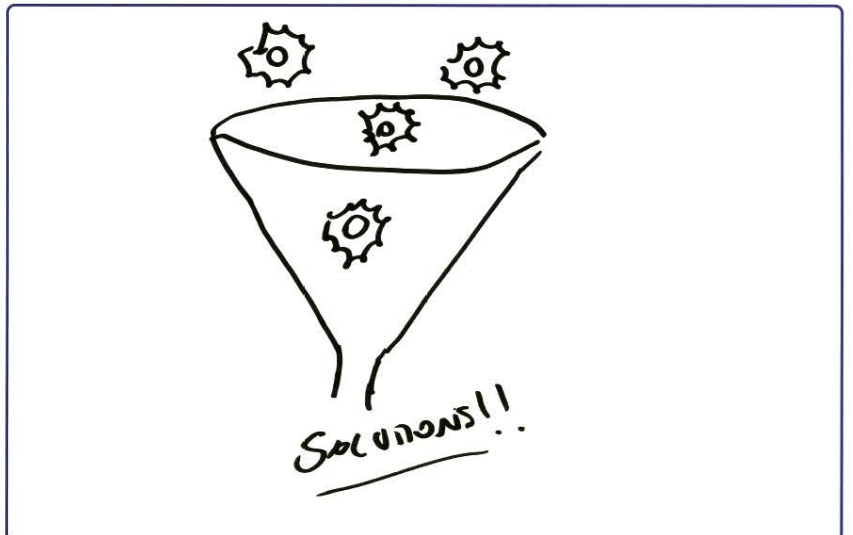
REDUCES GAP BETWEEN POLICE AND NON-POLICE INS|

IDENTIFYING STAKEHOLDERS

- BRING TOGETHER
- DEFINE PROBLEMS

- PROBLEM SOLVING

SOLUTIONS!!

Test your technologies with Technology Tinder !

"NO"

Keyboard   touchscreen

"YES"

USER Profile 1 Profile 2...

USER 1 Profile 2...

USER 2 Profile 3 ....

RESPONSE OFFICER

COMMUNITY POLICE OFFICER

BRIEFING OFFICER
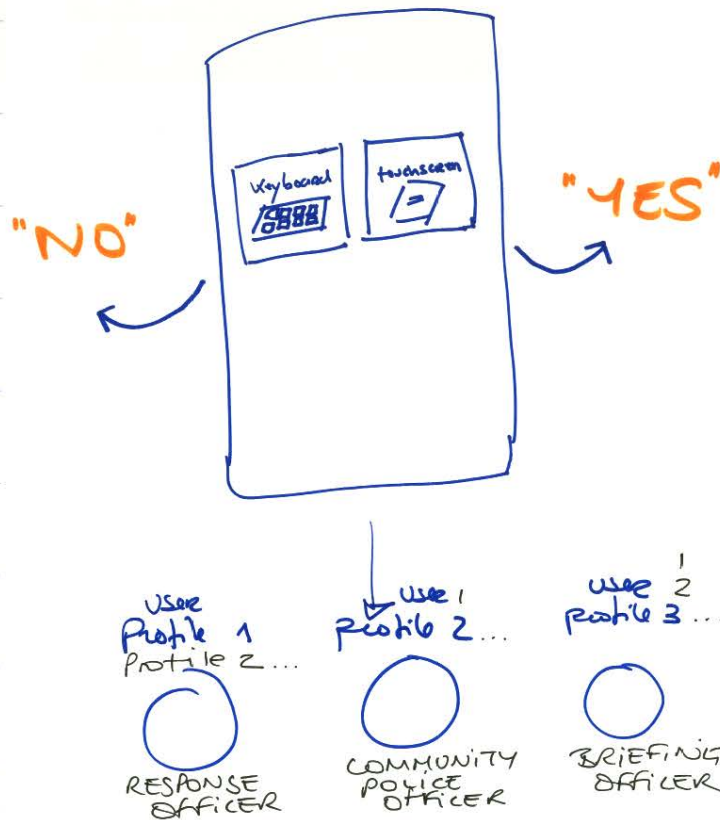
Idea description / Pitch

Design concept name?

Technology Tinder

What is it?

App to collect data
on users / police on:
— needs
— preferences
— use context
— technologies

Who is it for?

For those developing
new technologies/
devices

What does it do?

Gives feedback on
user preferences
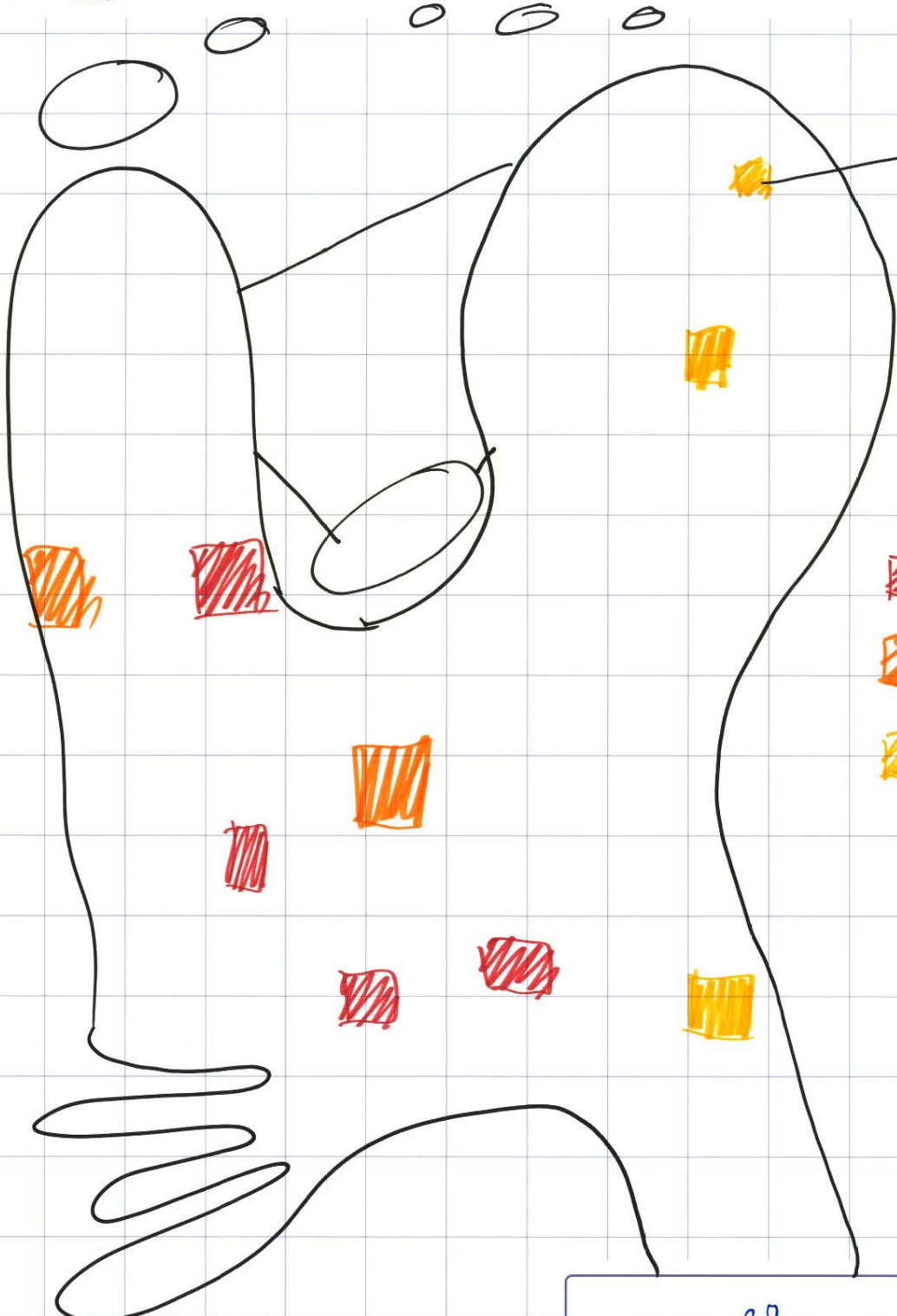— fun, easy "a game"
— not a questionnaire

How is it used?

Smart phone

What change will it create?

What is needed to enable the concept?

CCi CUTTING CRIME IMPACT

Team: Charlie (CIL)

Concept Overview

loc: Grote markt

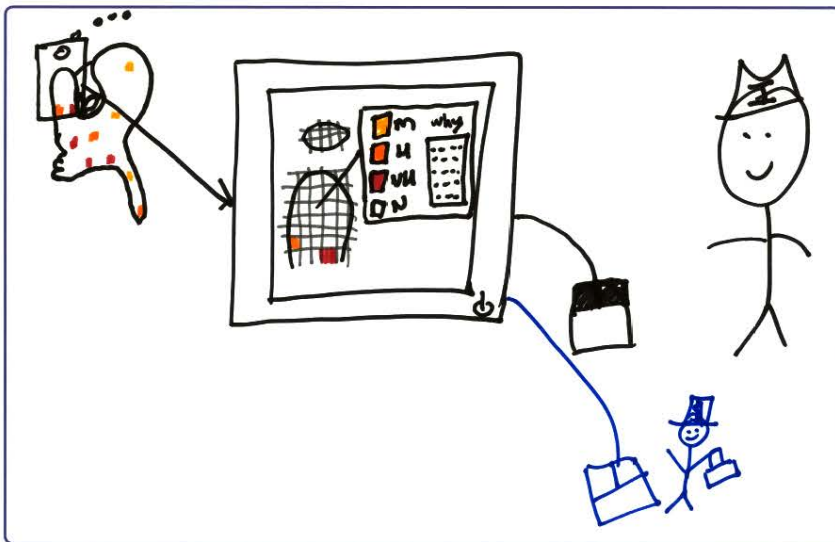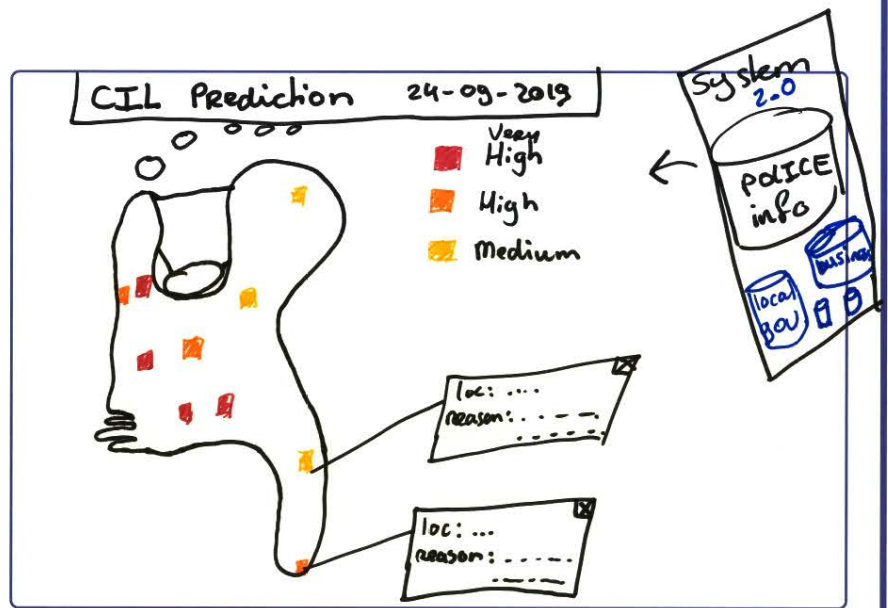reason: student party planned tonight

Very high
high
medium

CIL 2.0 is a process that improves the intelligence position by including human intelligence to predictive policing systems in a looped manner

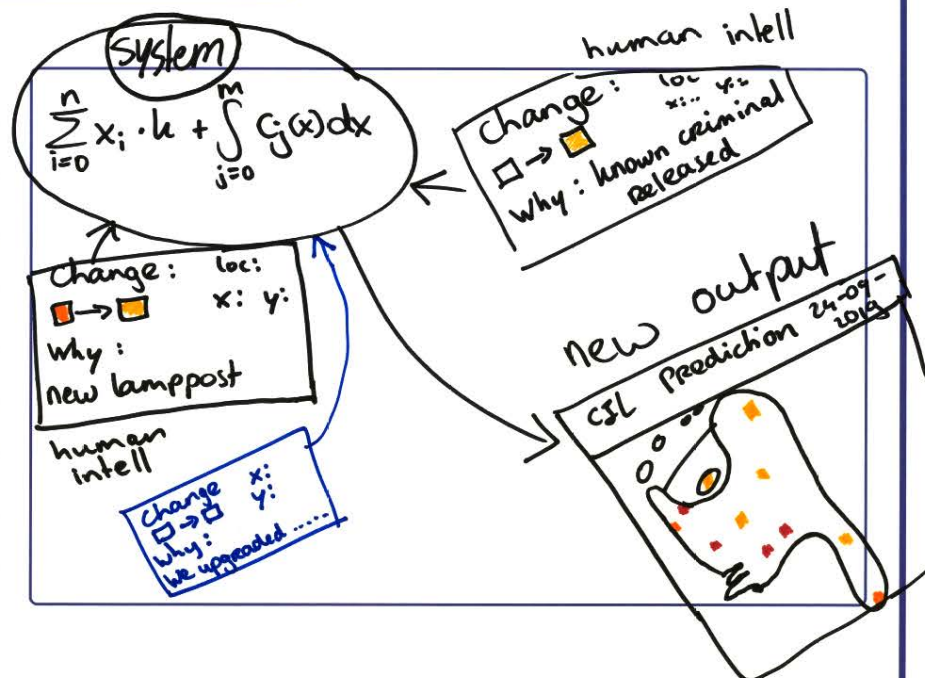including multiple sources both regular and human intell

Idea description / Pitch

This project has received funding from the European Union Horizon 2020 research and innovation programme under grant agreement no. 787100

Design concept name?

CIL — Complete Intelligence Loop

What is it?

Interactive system

Provide feedback to system intelligence → human intelligence

Human intelligence is used in next output of system (Loop)

Who is it for?

① Information specialist

② On a lower/different level: officers

What does it do?

Integrates human and System intelligence

How is it used?

P.P. tool

system intelligence

human intelligence (feedback)

Information Specialist (or officers)

What change will it create?

System + human =

Better intelligence position

What is needed to enable the concept?

- Stakeholder meeting with Information specialists/... for options
- IT (front end, integration in model,...)
- integrate into practise (work instruction)
- → stakeholder meeting → who can give feedback & to what extent?

System provides output

Looking at info from multiple sources

CIL Prediction 24-09-2019
■ Very High
■ High
■ Medium
System 2.0
POLICE info
local gov business
loc: ....
reason: .....
loc: ...
reason: .....

Information Specialist adjusts system output with human intelligence and motivates the adjustments

Other people with relevant human intell can add changes

System learns from / integrates the human intelligence when producing the new output

System
$$\sum_{i=0}^{n} x_i \cdot k + \int_{j=0}^{m} G(x)\,dx$$

human intell

change: loc x:
□ → ■ x:.. y:..
why: known criminal released

change: loc:
■ → ■ x: y:
why: new lamppost

human intell

Change x:
□ → ■ y:
why: we upgraded ...

new output
CIL Prediction 24-09-2019

MACHINE (SYSTEM)

- → Quality of data that feeds the System.
- → Ethical supervision of the algorithms
- → ~~Comprehensive access (not simple)~~
- → Caution about the meaning of hot police indicators. (social discussion)
-) ethical principles integrated in the System

HUMAN

- → Proper selection of:
  - Areas of co-decision
  - People involved (authorised)
  - outside decisors.
- → Well defined (technologically) proce-dure of feed back (understandably for the machine).

Integration system

- → Delete (off-line) the previous information
- → Proper response / reformulation
- → Capacity of asking clarification or further information.
- → Possibility of rephrasing inputs?

ACCOUNTABILITY

- → Programmers
- → "Human intelligence" →
  - Changes recorded by the system.
  - Supervised (social supervision)

UPDATING THE SYSTEM

- → Timing to renewal of database (permanent?)
- → How long do social indicators last?
- → Renewal of "human" actors
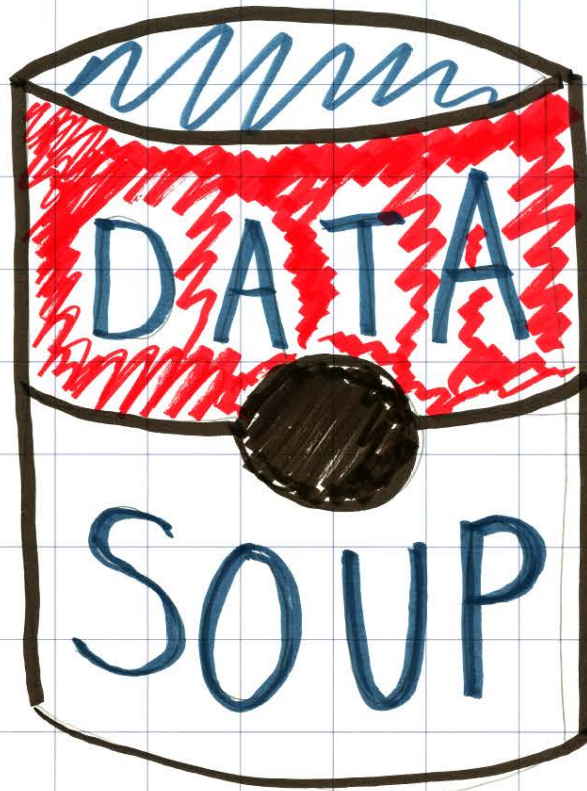
DATA SOUP

MIXED DATA
MAKES BETTER SOUP!

Idea description / Pitch

CCi
CUTTING CRIME IMPACT

Design concept name?

DATA SOUP

What is it?

DATA FROM THE
POLICE +
OTHER STAKE-
HOLDERS

Who is it for?

ALL THE STAKE-
HOLDERS AROUND
THE TABLE

What does it do?

$$1 + 1 = 3$$

How is it used?

FOR ACTION BY
EITHER STAKEHOLDERS
A or B or C...

What change will it create?

BETTER KNOWLEDGE
+ ACTION

What is needed to enable the concept?

DIVERSE AND RELIABLE
DATA

COLLECT

MIX

USE TO ACT

COOKING TOGETHER is FUN

MORE INGREDIENTS = MORE SOPHISTICATED TASTE (jum jum)
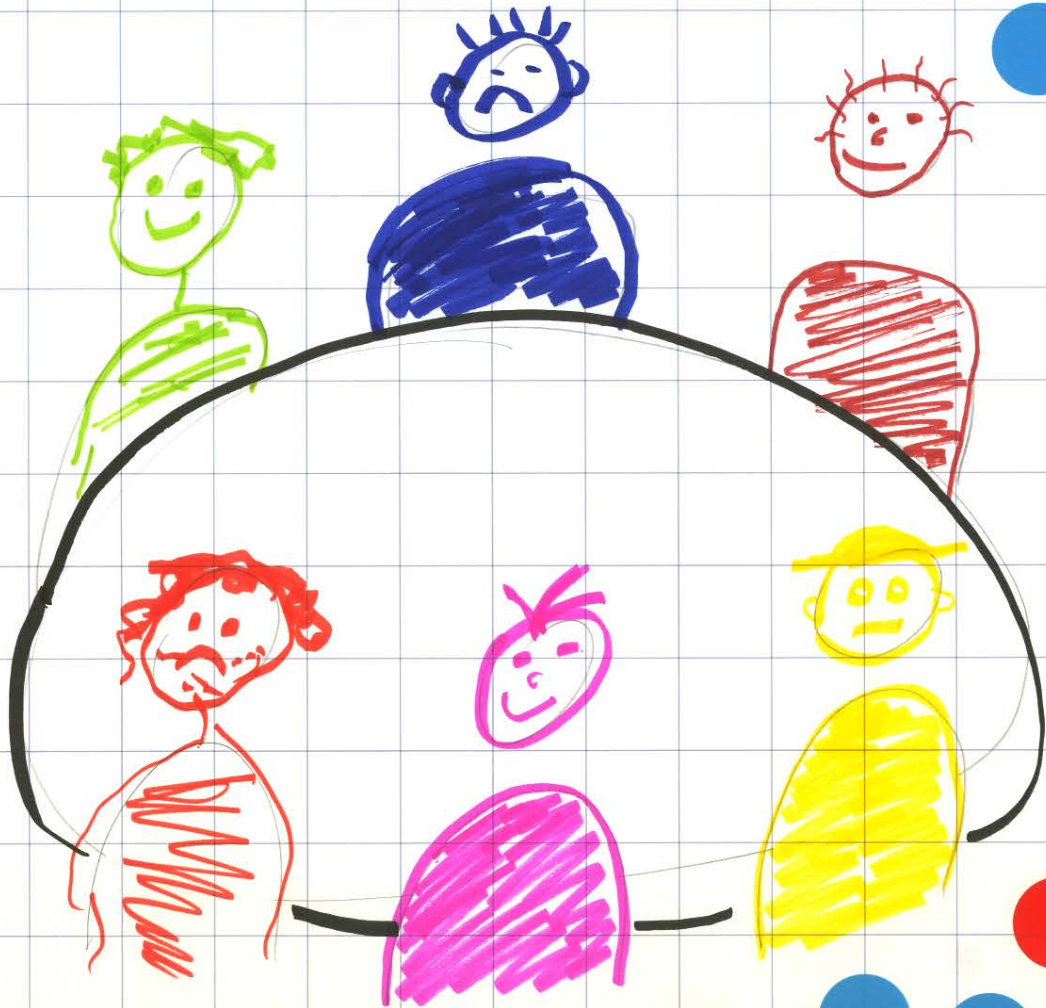
THE FIRST SUPPER

TO MAKE ‚SAFE SOUP‘
YOU HAVE TO COOK
IT
TOGETHER

Idea description / Pitch

Design concept name?

The first supper

WHAT?
A ROUND TABLE

Who is it for?
KEY STAKEHOLDERS FOR SPECIFIC SAFETY PROBLEM

What does it do?
COMBINE DIFFERENT INTERESTED STAKEHOLDERS TO EXCHANGE INFO

How is it used?
ONCE A MONTH EACH MONDAY MORNING

What change will it create?
COMMON UNDERSTANDING / INTEREST, TO SET PRIORITIES

What is needed to enable the concept?
- A TABLE
- MOTIVATED STAKEHOLDERS

CCi
CUTTING CRIME
IMPACT

Key Features

MEET & GREET

KEY STAKEHOLDERS

GOOD COFFEE

COMFY SEATS
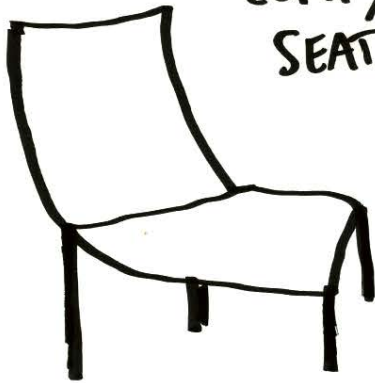
THE PLACE TO BE
(DON'T MISS IT!)

ACTIONABLE

SOUP with a MISSION

OUTCOMES

COME

COOK

EAT

Stage 1

Stage 2

Stage 3

police

local gov

Local business

Job Swap project

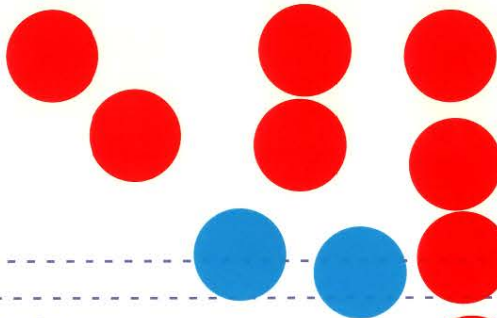"Live my Job"

Public prosecution

Idea description / Pitch
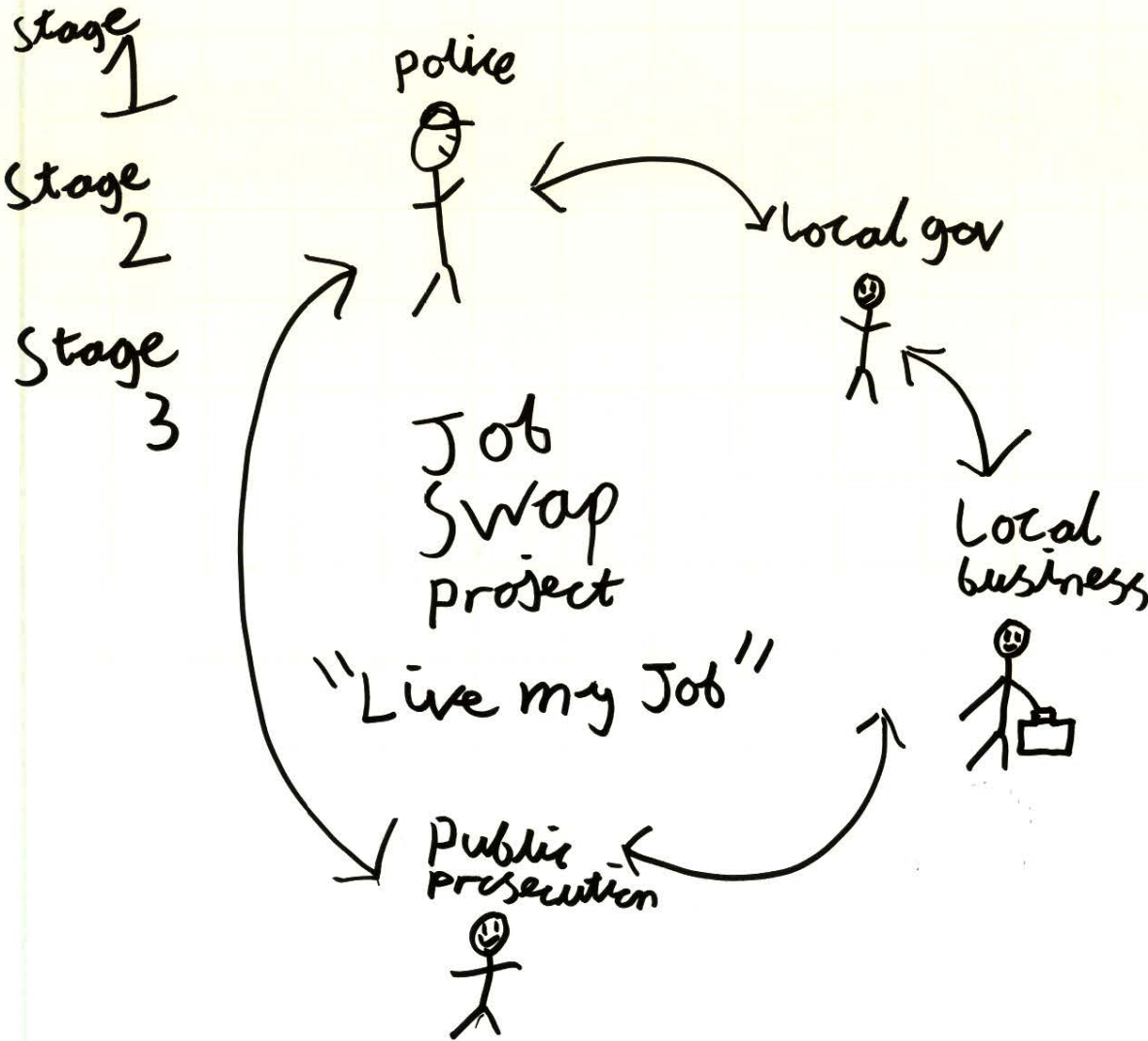
Design concept name?

Live my job

What is it?

A process to build and maintain relationships between Stakeholders

Who is it for?

- Stakeholders
- Partners
- Anyone involved in Security and crime prevention
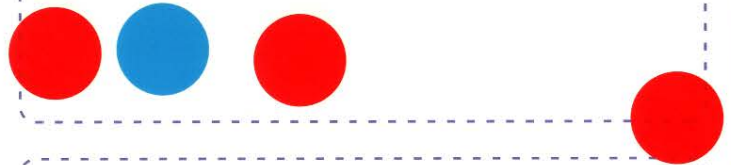
What does it do?

Builds relationships between partners to help Share data and info. Helps Stakeholders gain an insight into the wider process.

How is it used?

It is used as a way to conduct multi agency projects.

What change will it create?

- Mutual understanding
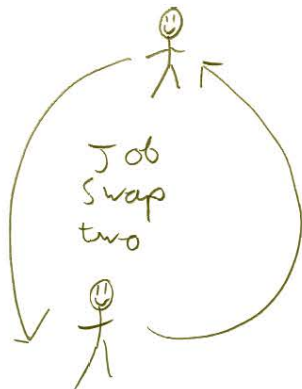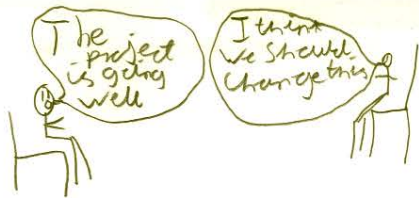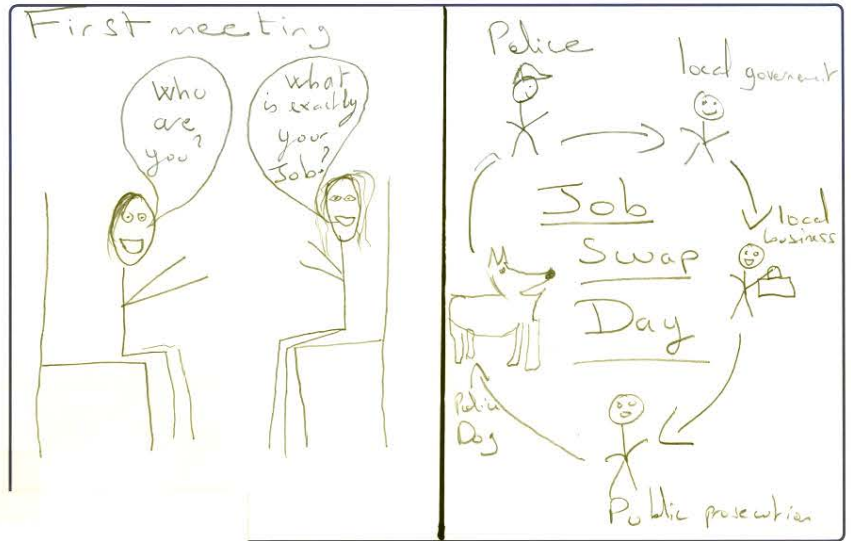- better relationships
- less mistakes

What is needed to enable the concept?

- willingness to participate
- good communication

At the beginning → you have to Know your Partners!

First meeting

Who are you?

What is exactly your Job?

Police

local government

Job Swap Day

local business

Police Dog

Public prosecution

The project is going well

I think we should change this

Job swap two

At the middle of a project you have to pefectly Know your partners

When the project finish, you have to see and live the use of the creation as one of you partner.

The project is finished, come and see it in action

I would love to

Job swap three
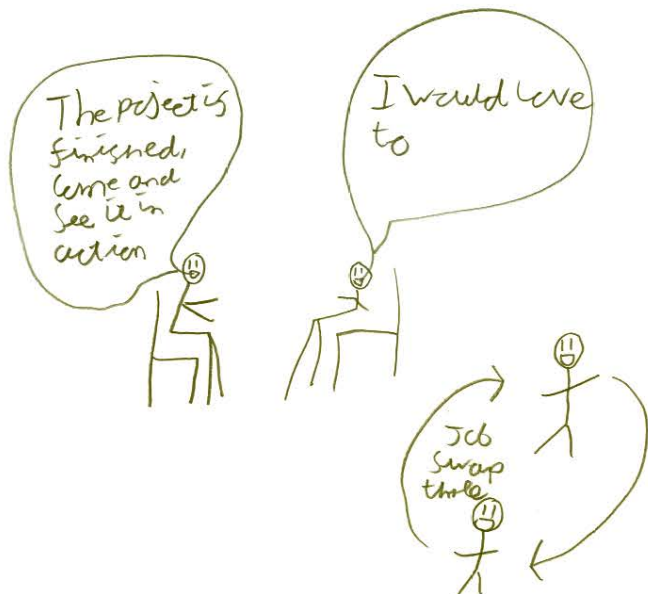
open
minded

Adaptability

Team
work