ABSTRACT
This study addresses the research question of how product design can enhance and strengthen the general public’s positive perceptions of the police in Norway. Product design expertise can be used to gain valuable insight into human-technology relationships, the general public and the possibilities within the field of crime prevention. By considering product design methods and tools, this study aims to call attention to an overlooked development possibility for interaction between the public and the police. The public expects the police to protect it, to prevent and solve crimes and to arrest criminals, in order to preserve safety and trust. Research on police practice has shown that the police are seen as service providers, and that the public is regarded as a static user and observer of police services. The product design approach that is applied in this study regards the public, to a greater extent, as a provider of the means of preventing crime. This paper uses studies of police surveys, reports and research on police practice in its methodology. For this study, interviews and observations of both individuals from the public and the police were carried out. This paper presents new insights from a product design perspective, which can contribute to filling the knowledge gap in interactions between police and public relations. The resulting knowledge can be used in practice to strengthen bonds between the police and the public, and to enable better prevention of crime.

Keywords: Product design, technology, service, police, trust, knowledge, public, safety

1 INTRODUCTION: POLICE-PUBLIC RELATIONS AND THE PUBLIC TRUST
In past decades, the government and the police have focused greatly on means of creating and trust through strategy and proper police work [1]. However, trust involves trustworthiness [2]. Previous research shows that much work has been carried out on this topic by the police and the government. But little on the public’s views. A recent program has aimed to add value and unify the police force, in order to ensure that the public experiences comprehensive and effective policing [3]. It should be easy for the public to engage in dialogue with the police, even through digital channels. All police officers should have access to user-friendly and mobile tools that allow them to solve and finish more jobs in the public space. The use of new technologies will enable police officers to work more intelligently, share knowledge more easily and effectively and respond faster, with better analysis as a basis for fighting crimes.

This topic became tragically relevant in a new way after the horrifying terrorist act in Norway, when on 22 July 2011, a terrorist slaughtered innocent young people and bombed a government building, killing 77 people and wounding 66. This madman’s actions have raised many questions in Norway. Among them is the ongoing public and governmental debate on whether Norwegians want a visibly armed police in Norway, and whether such a police force would increase trust in the police.

1.1 What trust is and how it is earned
Vilhelm Aubert has argued that trust is a characteristic of interpersonal relationships, and emphasizes that predictability among participants is a crucial aspect of the relationship of trust [4]. Predictability is a factor that the police have some difficulty defining in relation to the authority and trust that the public grants them. The term ‘the big collaborative project’ has been used by Liv Finstad to address the police’s greatest job within Norwegian society [5]. Finstad states that public-oriented activities are the most reliable source of trust, support and confidence for the police. She also points out that trusting relationships are not only necessary for the police to be able to perform tasks, but to carry out crime prevention and investigation services. This strongly supports Aubert’s position. One threat to
trustworthiness is that a single police officer can come to embody more than just an individual, and will represent both what lies within and behind the uniform. According to Larsson it is shown that those who have the most contact with the police have the least confidence. It seems reasonable to assume that this also applies to the reputation of the police, although this cannot be treated as empirical because of the basis of the profile surveys'. [6]

The researcher Marianne Sætre believes that criminology development has focused on creating direct and explicit hypotheses about crime as a construction, and has avoided addressing criminal actors as active participants [7]. Further to this, Tine Holm argues that the consequences of what Sætre calls a frozen standpoint theory are that scientists must choose between theories recognised by the research community, while so-called ‘free research’ is largely restricted and narrow in focus.

1.2 Industrial design possibilities: Interaction between the police and public

The concept of product design involves a duality in the tensions between different target groups and professional standpoints. Design takes place within a whole range of development areas and fields of focus, such as subject and context, form and function, the ancient and modern, natural needs and social needs and production costs and expectations of the target group and finances. Successful design is not about compromise but about doing justice to the different poles of these fields of focus [8]. In his studies on innovation, industrial designer Robert Curedale states that the goal of design thinking is to understand, observe and identify what users want from a product, service or experience [9]. Design thinking methods such as customer journey maps help designers cross disciplinary boundaries and design less tangible or physical services and experiences that change over time. As design takes place within a wide-ranging area of development, with the designer as both a listener and facilitator, design may reveal many new possibilities, as product designers always focus on both users and human values [9].

1.3 Preventing crime with the help of the public

Studies of any profession risk becoming too self-centred and providing solutions that are monotonous with few new insights [10]. Previous research has focused on work carried out by the police and the government, while little research has been carried out to explore insights from the public’s side. This knowledge gap makes room for design approaches that focus on public user experiences as a means of expanding existing horizons and gaining valuable new insights. This is the background for our central research question: how can product design increase trust within the police-public relationship?

2 METHODS: LITERATURE REVIEW AND INTERVIEWS

2.1 Qualitative methods for understanding daily experience

In this study, qualitative methods have been used with the aim of exploring and gaining new insights into the issues in question [11]. Curedale argues that qualitative research seeks to understand people in the context of their daily experiences, in terms of questions such as ‘why’ and ‘how’, and to develop an initial understanding of an issue [9]. In this study, semi-structured open-ended interviews were used to gain data [12]. The ability to delve deeper into concerns through interviews is a strong argument in favour of their use. By asking questions that explore a wide range of concerns about a problem and giving interviewees the freedom to provide detailed responses, researchers can use interviews to gather data that would otherwise be hard to capture [11]. Through concept mapping [13] and pattern matching [14], this study aimed to visualize relevant issues as a tool for design practice in the public-police relationship.

3 FINDINGS FROM THE PUBLIC AND THE POLICE

3.1 Initial focus group interview:

In the initial stages of the study, we gained a basic understanding of information related to the police and armaments with regard to the public, and started with the assumption that the general public would lose faith and trust in a visibly armed police force. This sparked our desire to test the assumption in relation to the views of the general public. We then arranged an initial focus group interview. The focus group involved interviews with three students from a master’s degree program in product design, two of whom were Norwegian and one of whom was Mexican. The interviews were
based on an open-ended approach. Simple wording was used to ask students to elaborate on topics, with regard to their views and experiences. The interviews were conducted with one facilitator asking questions and helping the flow of the conversation, and two moderators recording answers and interesting notions. One issue with the use of a small focus group is that it did not cover a sufficient number of individuals to properly represent the Norwegian general public and validate the findings. In some cases, the answers may have been contaminated by the facilitator, who aimed to clarify certain issues.

3.1.1 A visibly armed police force would signify an unsafe society
The interviews conducted with the focus group provided insight into the mindset of a small group of people that somewhat represented the general public. The participants’ answers indicated their generally high level of trust in the police, while the most valuable insight came in the form of the group’s disapproval of the assumption that ‘the general public would lose faith and trust in a visibly armed police force’. The interview subjects commented that they would not necessarily lose faith in the police, but that ‘a visibly armed police would signify an unsafe society’.

3.2 Individual interviews: Associations with visually armed police
In order to collect more reliable and valid data within the area of research, a second set of interviews was devised to prevent contamination from the facilitator. The subjects were asked to provide feedback on a set of photos, in order to present open but directed questions and collect data on associations and emotions evoked by the images. A larger group was examined, in order to better represent the general public. The participants were an elderly man of roughly 60 years of age, a woman of roughly 50 years of age, three women of roughly 20 to 23 years of age and two men of 25 and 33 years of age, last one was an ex-soldier.

None of the participants had issues with the police carrying weapons, and all stated that they had confidence that the police would handle weapons appropriately. However, they also argued that the visibility of weapons in public spaces would signify an unsafe society. These interviews explored the reliability and validity of the insights gained through the initial focus group interviews [11]. Police researchers have pointed out that in order to keep Norwegian society safe and prevent crime, police are dependent on the public’s trust and cooperation with the police as authority figures [15]. Initial research on the public’s views on guns within the public arena shows that the police desire for armament for defence could lead the public to believe that Norwegian society is unsafe. This perspective could lead to a public loss of faith and trust in the government and the police, which would greatly harm Norwegian society as a whole. This conclusion may be based on preliminary research, but highlights the value of looking deeper into the public’s needs, emotional perspectives and semiotic views in assessing whether to visibly arm the police, as well as in considering issues that affect the public and the police.

3.3 Qualitative interview with an experienced police officer
A qualitative interview was carried out with a police officer who has 25 years of experience in different fields, including ten years of fieldwork and experience in various management positions in different districts in Norway. He currently works as an investigator within the financial crime department’s public correctional agency. He has been involved in the former renewal programs, as well as the NTL (Norsk Tjenestemannslag) a union for workers in the state sector. Because of his broad experience, he is participating in a group determining the new police strategy for added value. The Norwegian police are facing a paradigm shift with all reforms to be undertaken to build One police - equipped to meet future challenges (Ministry of Justice and Public Security, NOU 2013:9).

3.3.1 Police culture and public trust
The police officer explained that through experience, he realised that the biggest challenges for change within the police lay within their culture, as it fosters a lack of acceptance. He explained this by discussing the broad variations that exist in police cultures in cities and different districts. He argued that some police officers have a tough ‘cowboy mentality’, whilst others are more concerned about doing good and correct police work. He confirmed that most police officers are very keen to do their jobs correctly, and understand that their actions may be subject to verification and investigation, and thus should be valid. He pointed out that trust is a core issue, and he asked the following questions:
‘Does police culture have a direct impact on the quality of policing that is offered to the public’? ‘Can police approaches to goals, skills and technology, as affected by police culture, lead to mistakes and errors in approaches to legal rights’?

3.3.2 Visibly armed police

The police officer informed us that there are currently 40 employees and contractors working on the development of the project pilot for the new program for a unified police force (One Police). In considering this issue, product designers could focus on issues such as why the police want guns or other weaponry when it could mean sacrificing their unique trust relationship with the public. The underlying reason for this is that the police want easier access to weapons in order to be able to more quickly respond to emergencies. However, existing research shows that easier access to weapons increases their use, increases the number of gunshots fired and makes potentially deadly outcomes more likely. Our preliminary research also shows that the general public’s trust and faith in the police and the government will likely decrease if police carry guns. The important question in this case is not whether the police should be allowed to be visibly armed, but what the police are willing to sacrifice in order to be able to do so. The police should have the right to equipment that enables them to defend themselves and the public, but this right should at no point challenge or potentially harm the realisation of the principles of society.

4 DISCUSSION: DESIGN THINKING IN POLICE PRACTICE

Existing research on police work indicates the necessity of involving other professional perspectives. Tine Holm writes that traditional police sociology has long been dominated by research on and around the police [7]. The police officer that we interviewed for this study stated that the police’s largest risk and challenge is the existing police culture, and claimed that this was a reason for a lack of acceptance of renewal programs within the police. In past decades, the government and police have intensively focused on what creates trust and how to maintain it through strategic approaches and good police work [16]. Several studies on trust have also showed that this is a recurring theme. Existing police research involves a major focus on the great importance of public trust, and often states that the police do not only gain this trust through their work. Through concept mapping [13] and pattern matching [14] we developed, based on design theory, a visualization concerning practice both in policing and design. Combined with inductive and deductive approaches [17], the resulting ‘police public oriented design’ (PPOD) is a tool for visualising the fields where design practice can contribute in building a more trustworthy police and with the result of gaining public trust.

![Figure 1: PPOD visualization](image)

4.1 User experiences of trustworthiness: A design approach

In her work, the philosopher Onora O’Neill has focused on international justice and the roles of trust and accountability in public life [2]. She offers an enlightened approach to the debate, arguing that what matters is not trust but trustworthiness. She argues that individuals or groups have to earn trust by being trustworthy, and that we should thus think less about trust and more about attitude and
adequate and simple evidence of trustworthiness. She concludes that trustworthiness is what we have to judge, and that trust is the response. This supports the idea that the best way to increase trust in the police may be by ensuring that the police is reliable and credible. What matters greatly in this regard are factors such as the response time and availability of the police. The police could probably benefit greatly by involving independent professionals such as product designers in related efforts, with an emphasis on design thinking, service- and product design; and the development of the future police force One police - equipped to meet future challenges (NOU 2013:9)

4.2 Systems of interaction
Design disciplines can explore new ways of expanding trustworthiness by looking more closely at systems of interaction, user experiences and usability and all related products. Exploring new technologies would probably show that major possibilities exist for innovation in the use of materials, uniforms and means of protection. Robert Curedale states that the goal of design thinking is to understand, observe and identify what customers (users) want in a product, service or experience, in terms of innovation [9]. He also explains that design thinking methods such as customer journey maps help designers cross disciplinary boundaries and design less tangible or physical services and experiences that change over time.

4.3 Acting to uphold our duties
Unless we take account of the positive aspects of trustworthiness as well as the negative aspects of untrustworthiness, it is not possible to assess whether we are facing a crisis of trust or only a culture of suspicion. From Onora O’Neill’s perspective, it is not surprising that if we persist in viewing good news as no news at all, we end up viewing no news at all as good news. Perhaps the culture of accountability that we are relentlessly building for ourselves actually damages trust rather than supporting it. We would do better to begin by thinking about what ought to be done and who ought to do it, rather than about what we ought to attain. To restore trust, we not only need trustworthy persons and institutions, but also assessable reasons for trusting and mistrusting. According to O’Neill: ‘Passive citizens, who wait for others to accord and respect their rights and mistakenly suppose that states alone can do so, are, I think, doomed to disappointment. Active citizens who meet their duties thereby secure one another’s rights. The passive culture of human rights suggests that we can sit back and wait for others to deliver our entitlements. I suggest that if we really want human rights we have to act and to meet our duties to one another. The supposed “crisis of trust” may be more a matter of what we tell inquisitive pollsters than of any active refusal of trust, let alone of conclusive evidence of reduced trustworthiness. The supposed ‘crisis of trust’ is, I think, first and foremost a culture of suspicion’. [2]

4.4 Legitimacy and trustworthiness
Helene I. Gundhus points out what she sees as a weakness regarding the issue of trust in existing literature. She argues that it threatens trust in the police if citizens perceive the police to be trustworthy [16]. This is the opposite of what Onora O’Neill claims [2]. The literature that Gundhus refers to discusses why trust in the police is associated with legitimacy problems, regardless of whether the police exercise authority. While O’Neill points out that trust is earned through trustworthiness Gundhus claims that the issue of trustworthiness should be excluded from discussions on trust in the police, to avoid reducing the question of trust to a strategic game about image work rather than principles and norms of state legitimacy [16]. O’Neill argues that trust is difficult to measure, whilst trustworthiness is easier to measure, as it results in trust. The experienced police officer that we interviewed also argued that trust is a core issue.

5 CONCLUSION: DESIGN THINKING IN POLICE-PUBLIC RELATIONS
The conclusion of this study is that the PPOD illustration can be used as a visualization tool for possibilities in the interaction between the public, the police and design practice. Also that design thinking could potentially help the police develop new products. These products could, for example, enable police officers to carry defence equipment that is integrated into their uniforms. Based on the interviews in this study, it seems like such products could be designed in a way that takes into consideration both the needs of the public and those of the police, based on relevant research. Such products should be non-lethal, but allow the police room to handle a variety of situations accordingly
and efficiently when needed. The products could be designed in a way that uses colour to indicate what they are, but still enables them to blend in with the uniform. They should be highly discrete, non-aggressive, in a stationary position, and able to work as multipurpose precision tools.

These concepts for possible products could also raise awareness and expand the practices of product designers. The products could be vital resources for the police and enable better approaches to their services, particularly in the case of those that relate to the public as end user. Product design can take the needs in the police-public interaction into account in order to achieve the common goal of a strong trustworthy police and a safe society; and in a sense, make way for another pillar of crime prevention for the police: the public. The public is the police’s strongest asset, not only in how they are defended and protected, but in mutual learning and listening. Product design can be a vessel for translating this information into value for the police, and in the end, the public. As Mark Twain said, ‘The public is the only critic whose opinion is worth anything at all’.

REFERENCES