

Police Knowledge Sharing Capabilities (WP3.3)



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Abstract

In this brochure we present the results from three studies of knowledge sharing within police organisations and with three other stakeholders (other forces in the same country, the public and forces in other countries). In the first study, 152 interviews were conducted with members from 17 police organisations drawn from all of the 10 countries involved in the COMPOSITE project. In the second study ten in-depth case studies of international knowledge sharing involving police organisations were carried out. The third study involved conducting a survey of 481 police members drawn from the ten member countries with the aim of developing an organisational knowledge sharing diagnostic tool. We present the findings in terms of the perceived effectiveness of knowledge sharing in different domains, the most frequent types of knowledge shared, the most and least effective methods of knowledge sharing and the most common perceived barriers and facilitators for knowledge sharing both within police organisations and between the aforementioned stakeholders. Analyses are summarised across all countries as well as pointing out differences between countries with concluding comments highlighting the main themes and recommendations emerging from the analyses. The findings are integrated into a conceptual framework of ten types of factors found to influence knowledge sharing effectiveness in different domains (staff capabilities, process capabilities, technology capabilities, financial resources, information characteristics, timeliness of information sharing, organisational differences, political differences, public factors and international factors). Practical recommendations arising from the research highlight the importance of building up the human factors of motivation, trust, knowledge, skills and experience of police personnel and facilitating methods for direct contact between different police and non-police stakeholders as a crucial set of knowledge sharing capabilities for police organisations. A new diagnostic tool designed specifically for police organisations (EKSP0-DI) based on this research is presented in this report as a means of helping benchmark knowledge sharing performance and areas for development.

Management summary

1. Background and project aims

- COMPOSITE (Comparative Police Studies in the EU) is a research project funded over a period of four years (2010-2014) out of the FP 7 Framework Programme of the European Union. COMPOSITE is looking into large-scale change processes in police forces all over Europe and attempts to find out what factors contribute to the success or failure of these change processes. Through different work package streams, researchers are investigating organisational structures, organisational identities and cultures, leadership styles, and processes.
- COMPOSITE Work Package 3 'Knowledge Sharing Capabilities and Best Practices in Organisations' was tasked with investigating knowledge sharing practices at a number of levels to build a picture of organisational knowledge sharing capability at the local, regional, national and international level. Policing is increasingly an information-rich and knowledge intensive practice, hence the development of effective knowledge sharing capabilities are vital to operational success. Understanding how to

do this is problematic since an earlier systematic review by this report's authors showed that the extant literature on knowledge sharing in policing contexts is relatively scarce (appearing to be entirely absent in a number of European countries), focused primarily on intra-organisational knowledge sharing and concerned with technological processes only (Allen & Birdi, 2011). The COMPOSITE project therefore provided a platform to fill the extensive gap in knowledge through the undertaking of three new empirical studies involving all 10 members of the consortium (Belgium, The Czech Republic, France, Germany, Italy, Macedonia, The Netherlands, Romania, Spain and The UK).

- This brochure relates to the final report 'Deliverable 3.3. Knowledge Sharing Capabilities and Best Practices in Police Organisations: A Study of Policing in Ten European Countries. Second Cross-Country Comparison', in which we present the results of the empirical research across the 10 COMPOSITE countries. The aims of this project were to investigate police organisations' knowledge sharing along four dimensions: i) within the police organisation, ii) between police organisations in the same country, iii) international knowledge sharing with forces in

other countries or international police agencies and iv) between the police organisation and the public, with regards to four research questions:

- 1: *How effective are police organisations at sharing knowledge both internally and with external bodies (other forces in the same country, with forces in other countries / international agencies and the public)?*
- 2: *What different types of knowledge are most commonly shared in the above four domains?*
- 3: *How effective are different methods of knowledge sharing in the above four domains?*
- 4: *What are the major antecedents (barriers and facilitators) of successful knowledge sharing in the four domains?*

An additional key practical objective was to produce a knowledge sharing diagnostic tool for police organisations as a result of the research.

2. The research methodology

A combination of qualitative and quantitative research methods were used in order to provide both richness of detail and allow the testing of relationships and differences. The three studies we report on are as follows:

1. **Semi-structured interviews** were conducted with 152 police organisation members drawn from the COMPOSITE consortium countries. The sampling strategy was designed to include police members from junior, middle management and senior ranks in order to provide a broader perspective across the hierarchy. Since approximately 15 interviews were done within each country, it should be noted that the findings are more illustrative rather than representative of each country. Short questionnaires were also included within the interview protocol.
2. **Ten case studies of international knowledge sharing between forces or agencies** were produced by all COMPOSITE country research teams. **Six of the case studies explored cross-border collaborative work**, including projects and collaborative investigations which require cross-border sharing, and **four of**

the case studies explored the work of international policing organisations. Each case study examined the following aspects: what knowledge is shared and how; facilitators of knowledge sharing; barriers to knowledge sharing; examples of best practice in knowledge sharing; and the future perspective, i.e. what knowledge sharing will be required in the future and what capabilities will be needed to facilitate this.

3. **A questionnaire survey** building on the findings of the first two studies was conducted with police forces in the consortium countries. In total, 481 police organisation members took part in this study. The questionnaire was the initial version of the diagnostic knowledge sharing tool EKSPD-DI and it allowed the analysis of quantitative responses from a much wider sample than in the other two studies.

3. Key findings

RQ1: How effective are police organisations at sharing knowledge both internally and with external bodies (other forces in the same country, with forces in other countries / international agencies and the public)?

- Overall, participating police organisations felt on average they were effective, rather than

outstanding, at internal knowledge sharing. Knowledge sharing within teams was rated as most effectively done, followed a way behind by sharing between teams and between functions. Although still very near the 'effective' rating, knowledge sharing between ranks and between senior management was relatively rated a little lower indicating the vertical flows of knowledge up and down the hierarchy are not executed as well as horizontal flows between teams or functions.

- Knowledge sharing effectiveness internationally with forces in other countries or international agencies was rated highest of the four domains we asked participants to consider, followed by interacting with the public, then with other forces and internally.
- Our analyses also indicated that police organisations that have better knowledge sharing capabilities, particularly in terms of letting knowledge flow up and down the hierarchy and using formal knowledge storage and management systems, report better ability to adapt to change.

RQ2: What different types of knowledge are most commonly shared in the above four domains?

- Thematic analyses of the qualitative responses in the interview and case studies

produced eight major categories of knowledge sharing conducted by police organisations: **intelligence and related operational information; information on the workings of the police; police performance-related information; crime prevention information; legislation and policy; information about the region; learning; and rumours.** Intelligence-related information was the most commonly shared type of knowledge internally and with other policing partners, while police progress/enquiries were most often shared with the public.

- Analysis of the data gathered from piloting the diagnostic tool (Study 3) showed that internally, police participants felt the sharing of intelligence and operational information plus legislation issues were done the most effectively but that sharing strategic priorities and information on future directions was done somewhat less effectively. This does echo the earlier finding where information sharing hierarchically between ranks was rated as less effective than horizontal movement of knowledge between teams or functions.

RQ3: How effective are different methods of knowledge sharing in the above four domains?

- Interview participants were asked to describe the most and least effective methods of

knowledge sharing they had experienced. Thematic analysis of the qualitative data generated a taxonomy of 13 methods: **personal interactions; paper-based methods** including letters, newsletters and posters; **telephone; email; web-based methods** such as intranets, the internet or social media; **videoconferencing; police radio; databases and online systems; group learning activities** such as workshops and seminars; **co-location of forces; exchanges and visits between forces; intermediary agencies like CEPOL; and the media (Press, TV and Radio).**

- The most effective methods for internal and cross-regional knowledge sharing were considered to be direct person-to-person communication (either face-to-face meetings or discussion or using direct contact methods such as the phone). This desire for close interaction with peers was also reflected at the international level through either having cross-force meetings or attending workshops, seminars or conferences. In contrast, with the public, using the Press, TV and Radio was considered the most effective route due to its wide coverage, although having personal discussions with the person in the street was also rated highly.

- Most methods had their advantages and disadvantages and we highlight the specific issues in the report.
- Study 1 also attempted to provide an overall perspective on preferred modes of communication in the participating police forces with regards to formality and virtual versus personal nature of the methods. As might be expected, overall formal face-to-face methods such as briefings and courses proved to be the most popular mode of knowledge sharing. Informal face-to-face methods such as conversations with colleagues or networking events came second overall, closely followed by formal virtual methods such as databases or online courses. The least popular mode was in terms of informal virtual methods such as online forums and social media.
- Interestingly, the pattern of second and third most popular modes varied from country to country. Informal face-to-face methods were the second most common method in Romania, the Czech Republic, Macedonia, Germany and Italy while the UK, Belgium and France put formal virtual methods second.

RQ4: What are the major antecedents (barriers and facilitators) of successful knowledge sharing in the four domains?

- Drawing across the three studies we produced a conceptual framework of antecedents of knowledge sharing in each of the four domains. The antecedents were grouped into 10 types of factors:

A. Staff Capabilities – personal experience and knowledge; motivation to share knowledge; the development of good relationships between institutions or the public; team effectiveness; and co-operation and leadership

B. Process Capabilities – effective operational management; flexibility of working methods and location; clear responsibilities and goals; effective procedures and documentation for knowledge sharing; and shared goals and responsibilities

C. Technology Capabilities – accessibility and reliability

D. Financial Resources – amount of money available to invest in knowledge sharing activities

E. Information Characteristics – clarity of information; accessibility of information; sensitivity of information (e.g. legal restrictions); and

accuracy and relevance of information

F. Timeliness and speed of information sharing – regularity of sharing knowledge with stakeholders; and rapidity of communicating important information when crucial situations arise

G. Organisational differences– different cultures; policies and structures of police forces

H. Political differences – intraorganisational and interorganisational (personal politics and power issues) and national (Governmental Politics)

I. Public factors – public image of police; police engagement with the public; the media (press, TV and radio)

J. International factors – different legal systems; joint legislation or written agreements on co-operation; strategic importance of issues in countries; and visibility of international agencies with regular police forces

- Links were made between each of the above factors and the four domains of knowledge sharing, highlighting that certain factors were important for all modes of knowledge sharing but others were only relevant to specific contexts. For example, the most commonly reported barriers on

average across all our participants for each of the four domains were as follows:

- o Internally: Lack of staff resources/time; ineffective or inaccessible technology; lack of facilities/equipment; and working practices that do not encourage sharing

- o With other forces in the same country: Bureaucratic processes; incompatible systems between forces; lack of formal processes or strategy for sharing; and lack of staff resources/time

- o Internationally: Bureaucratic processes; different legal systems between countries; and managing sensitive information

- o With the public: Managing sensitive information; data protection legislation; and negative public perception of the police

- Statistical analyses also showed that police organisations who were better at knowledge sharing had the following characteristics in each of the four domains:

- o Internally: Better leadership; less organisational politics; greater motivation to share among staff; and provided staff with access to relevant information

- o With other forces in the same country: Greater motivation to share among staff; made it customary to share information with other forces; were less likely to report dealing with sensitive information/legislative requirements as a barrier; and had formal processes or strategies for sharing information
- o Internationally: Knew who to talk to in other forces; had sufficiently skilled and experienced personnel; greater motivation to share knowledge internationally; had greater trust with other forces; and had staff able to speak different languages
- o With the public: Had less bureaucratic procedures for communicating with the public; more effective and accessible technology; had sufficiently skilled and experienced personnel; felt there was a more positive perception of the police

4. Development of the diagnostic instrument EKSP0-DI

This brochure also presents a new knowledge sharing diagnostic tool Effectiveness of Knowledge Sharing in Police Organisations Diagnostic

Instrument - (EKSP0-DI) specifically designed for police organisations.

- EKSP0-DI was developed, in collaboration with each of the consortium countries, to provide police forces with an opportunity to **assess and benchmark their knowledge sharing capabilities**.
- It consists of an **assessment questionnaire** and a **manual** which provides **guidance on when and how to use the questionnaire, how to interpret the results and understand the findings**, and also provides **recommendations based on current research and best practice** identified during the study. It also includes insights from earlier COMPOSITE projects.
- During development of the instrument, all countries were consulted on the first draft and their **involvement and constructive feedback** led to the development of the pilot version of the questionnaire. All countries were involved in piloting the questionnaire in some way, and despite some difficulties experienced by countries to engage forces with the questionnaire, an excellent **481 completed pilot questionnaires** were received.
- As part of the pilot, countries and respondents were asked to provide feedback on the process

and the questionnaire. **The data analysis and the feedback then informed the design of the version of EKSP0-DI** provided in the report.

- This current version of EKSP0-DI can be circulated by paper or circulated and completed via email; it can also be converted to an online survey, something a number of countries did during the pilot.
- The **manual**, developed to give guidance to forces to carry out a self-assessment of their knowledge sharing capabilities, can be found in a **separate report** (Turgoose et al., (2012), COMPOSITE Deliverable 3.4).

5. General conclusions and practical recommendations

The report provides general conclusions around the theoretical and methodological contributions of the project plus offers a number of practical recommendations for police organisations wishing to improve their internal and external knowledge sharing effectiveness:

1. **Emphasis should be placed upon developing people skills in knowledge sharing.** Particular topics highlighted by our research included learning how to deal with Press, TV and Radio and using social networking

applications to improve interaction with the public and learning about data legislation in different countries to improve international information exchange.

2. **Effective leadership and leading by example** are clearly key factors that impact on the effectiveness of a police force. Line managers good at promoting knowledge sharing internally were those who had regular meetings to encourage discussion, incorporated information sharing in work objectives, provided written or verbal encouragement and made the activity part of the working culture.
3. **Clear and efficient processes for quick knowledge sharing** should be developed between forces, with speed often being crucial for knowledge sharing, particularly around the sharing of criminal intelligence on specific cross-border cases. The use of direct methods of communication, including telephone and face-to-face meetings, should be explored for quick transfer of information. Reducing bureaucracy and complexity of procedures for information exchange would also help.
4. **Strategies should be developed in conjunction with other forces** for how knowledge is to be shared and when, and **contact lists for**

communication drawn up – barriers to knowledge sharing included lack of process and strategy, as well as not knowing who to contact within other forces.

5. **The possibilities for co-location with other forces and services should be explored.**
6. **Better relationships should be developed between police officers from different forces** (within the same country and other countries) **through regular face-to-face activities** such as cross-border meetings, workshops, seminars and exchange visits.
7. **Standardised technological systems should be created / utilised.** The case studies have shown disparate technological systems across countries result in knowledge being difficult to share. Exploring the use of standardised systems, and making use of the internet and other systems which are accessible to a wide audience, is a key recommendation for improving international knowledge sharing.
8. **Good working relationships should be established between police personnel across countries.** Increasing trust between police members facilitates informal knowledge sharing and helps create clearer communication channels. Social

events and exchange visits were seen as good methods of improving rapport.

9. **Language skills should be improved in those who are required to share knowledge internationally.**
10. **Awareness of organisational and legislative differences between countries should be improved.** This would help clarify what can and cannot be shared across borders. CEPOL offers training courses with an aim to broaden knowledge of policing differences across the EU and this would be a good route to develop this type of knowledge.
11. **Awareness of international centres / projects / organisations should be improved.** Our case studies on the Police and Customs Co-operation Centres in Tournai, Świecko and Le-Pertus, all describe a lack of visibility of the centre, or a lack of recognition of the importance of the work of the centre, as being a barrier to knowledge sharing. A recommendation here would therefore be to undertake promotional work in order to raise awareness of the important work taking place, the aims and objectives of the centres, and to share examples of best practice from the centres, for example operations or investigations which have had a successful outcome.

A further recommendation here is that further promotional work should take place in order to raise awareness of international police work more generally across EU police officers since many of our participants had no knowledge of this area.

12. **The EKSP0-DI tool has been developed to provide police organisations with the opportunity to assess how effectively knowledge in being shared in a range of situations.** Its purpose is to: i) enable police organisations to assess the effectiveness of their own knowledge sharing capability and provide them with the opportunity to collect benchmark information; ii) identify the most common barriers to effective knowledge sharing and iii) provide recommendations for strategies for dealing with the barriers. We would recommend that organisations use EKSP0-DI as part of their activities designed to help support development of their knowledge sharing capabilities.

Section 1

Introduction to the COMPOSITE knowledge sharing research programme

In this Section, we outline the background to the research, the major research questions we addressed and provide a brief overview of the methodologies for the three studies we conducted to investigate knowledge sharing by police organisations.

1.1. Background to the research

COMPOSITE (Comparative Police Studies In The EU) is a major international research project funded for a period of four years (2010-2014) out of the FP7 Framework Programme of the European Union. COMPOSITE is investigating large-scale change processes in police forces all over Europe and attempts to find out what factors contribute to the success or failure of these change processes. Through different work package streams, researchers are examining the role of organisational structures, capabilities, identities, cultures, leadership styles, and processes. The research is taking place in the ten member countries of the COMPOSITE consortium: Belgium, Czech Republic, France, Germany, Italy, Macedonia, Netherlands, Romania, Spain and the United Kingdom.

COMPOSITE Work Package 3 (WP3) 'Knowledge Sharing Capabilities and Best Practices in Organisations' was tasked with investigating knowledge sharing practices to build a picture of organisational knowledge sharing

capability at the local, regional, national and international level. Policing is increasingly an information-rich and knowledge intensive practice, hence the development of effective knowledge sharing capabilities are vital to operational success. Understanding how to do this is problematic since an earlier systematic review conducted for COMPOSITE (Allen and Birdi, 2011, WP3 deliverable 3.1) showed that the extant literature on knowledge sharing in policing contexts is relatively scarce (appearing to be entirely absent in a number of European countries), focused primarily on intra-organisational knowledge sharing and concerned with mainly technological processes. The COMPOSITE project therefore provides a platform to fill the extensive gap in knowledge through the undertaking of three new empirical studies involving all ten COMPOSITE countries.

This brochure summarises the final report 'Knowledge Sharing Capabilities and Best Practices in Police Organisations: A Study of Policing in Ten European Countries', in which we present the results of empirical research across the ten COMPOSITE countries (WP3 Deliverable 3.3). The aims of this project were to investigate police organisations' knowledge sharing along four dimensions:

i) within the police organisation

ii) between police organisations in the same country

iii) between the police organisation and the public

iv) international knowledge sharing with forces in other countries or international police agencies

We chose the above external stakeholders since sharing knowledge across regional and national boundaries is becoming increasingly important for effective policing work and these aspects had been neglected by previous research. The public was also identified as a key stakeholder for police organisations from earlier research by COMPOSITE Work Package 1 (Born & Witteljoostuijn, 2011) hence improving knowledge exchange with them is a major priority. To advance both theoretical understanding and practical guidance in the area of police knowledge sharing the following four research questions (RQ) drove our research:

RQ1: How effective are police organisations at sharing knowledge both internally and with external bodies?

RQ2: What different types of knowledge are most commonly and effectively shared in the above four domains?

RQ3: How effective are different methods of knowledge sharing in the above four domains?

RQ4: What are the major antecedents (barriers and facilitators) of successful knowledge sharing in the four domains?

An additional key practical objective was to produce a knowledge sharing diagnostic tool and manual for police organisations informed by the research – the Effectiveness of Knowledge Sharing in Police Organisations Diagnostic Instrument (EKSPD –DI).

Through addressing these research questions the aim of WP3 was to develop a much richer theoretical grounding of knowledge sharing in policing contexts and produce practical tools and guidelines to help police organisations improve their knowledge sharing capability.

1.2. Overview of methodology for the research

A combination of qualitative and quantitative research methods were used in order to provide both richness of detail and allow the testing of relationships and differences. The research was conducted in three individual studies as follows:

Study 1: Interviews on knowledge sharing with police members from ten European countries

Each of the ten country teams involved in the COMPOSITE consortium were asked to conduct 15 interviews during October-November 2011

with participants within each police force involved in the data collection. Interviewees were drawn from four levels of hierarchy (top level, senior leadership, supervisory and front-line) to ensure that there was a good mix between higher and lower levels in the police forces. A total of 152 interviews were finally conducted.

The interview schedule consisted of both semi-structured and structured parts, with a mixture of open-ended questions and survey questions with the use of Likert scales. The open-ended questions were used to collect rich and qualitative data, and the survey questions were used to generate quantitative data. The interviews took on average about two hours, and this time included the administration of two questionnaires based upon Likert scales which were self-completed by the interviewee.

The interview schedule asked participants to rate their police force's effectiveness in sharing knowledge along each of the four dimensions mentioned above (internally, with other forces in the same country, with the public and internationally) and describe any barriers or facilitators to such activities. Additional questions were asked around the role of knowledge sharing strategy, leadership, knowledge management systems and the use of different knowledge sharing methods.

The findings from Study 1 are reported in Section 2 of the brochure.

Study 2: Ten case studies on international knowledge sharing

Study 1 showed that many police officers were not involved in knowledge exchange with international partners. We therefore decided to conduct another study with a more specific focus on the international dimension. All ten COMPOSITE country research teams produced a case study based on one of the two areas of international knowledge sharing. Six case studies were completed on a cross-border collaboration between police forces in different countries:

1. Cross-border initiatives of the West Coast Police, Belgium
2. Police and Customs Cooperation Centre of Tourmai, Belgium
3. Police and Customs Cooperation Centre of Świecko, Poland
4. Police training initiatives run by the Arma dei Carabinieri, Italy
5. Joint Investigation Teams in the Netherlands
6. Police and Customs Cooperation Centre in Le-Pertus, France

The other four case studies explored the work of international policing organisations and the ways in which these organisations facilitated the sharing of knowledge. These case studies included:

1. INTERPOL
2. FRONTEX

3. MARRI (Migration, Asylum, Refugees Regional Initiative) Regional Centre In Skopje

4. CEPOL, the European Police College

All ten country teams produced their case study based upon a combination of up to five in-depth interviews with police officers involved in cross-border collaborations or members of cross-border agencies, and desk-based research such as review of documentation and websites. Precise research methods differed slightly from country to country, depending upon the topic being studied and the ease of access to organisations in order to conduct the research.

Each country team produced a detailed case study report based upon their research, providing an overview of the methodology used, an understanding of the collaborative work or organisation and the way it facilitates knowledge sharing, in particular including the following information:

- What knowledge is shared and how
- Facilitators to knowledge sharing
- Barriers to knowledge sharing
- Best practice in knowledge sharing
- Future perspective: what knowledge sharing will be required in the future and what capabilities will be needed to facilitate this.

The findings from Study 2 are reported in Section 3 of the brochure.

Study 3: The development of a knowledge sharing diagnostic tool (EKSP0-DI)

A diagnostic questionnaire tool was developed, building on the findings of the first two studies, and this was piloted with police forces in the ten consortium countries. The questionnaire was the initial version of the diagnostic knowledge sharing tool EKSP0-DI (Effectiveness of Knowledge Sharing in Police Organisations – Diagnostic Instrument) and it allowed the analysis of quantitative responses from a much wider sample than in the other two studies. Feedback on the pilot version of the questionnaire was utilised to develop the current version of EKSP0-DI, which, along with a guidance manual, is designed to be used by police organisations to conduct an assessment of their knowledge sharing capabilities.

The EKSP0-DI questionnaire asked police respondents to rate:

- The overall effectiveness of knowledge sharing by their police force both internally and externally
- The frequency of different types of knowledge shared in each domain
- The effectiveness of different methods used to share knowledge

- Their competence in using different methods of knowledge sharing
- The most common barriers to knowledge sharing in different domains
- Leadership attitudes and behaviours

A total of 481 completed pilot questionnaires from ten police organisations were received.

The findings of Study 3 are reported in the Section 4 of the brochure.

The following sections will describe the methodology and the findings of the three main studies in more detail and our final chapter (Section 5) will draw together the emergent themes to provide theoretical and practical implications.

Section 2

**Study 1:
interviews with police members
from ten European countries**

In this Section we describe the methodology for the interviews conducted for Study 1 and outline its main findings about knowledge sharing in each of the four domains with regards to: levels of effectiveness; the types of knowledge shared; methods used; barriers and facilitators; the role of leadership and the relationship between knowledge sharing capabilities and police organisations' flexibility in adapting to change.

2.1. Methodology

Each of the ten country teams involved in the COMPOSITE consortium were asked to conduct 15 interviews during October-November 2011 with participants within each police force involved in the data collection. If more than one police force was involved in COMPOSITE, then country teams were asked to spread the interviews evenly, as much as possible, across the police forces. The intention was to interview within the police forces across different hierarchical levels and four levels of hierarchy were proposed to ensure that there was a good mix between higher and lower levels in the police forces:

1. Two officers from the top/strategic level – Chief Officer Group
2. Three officers from the senior leadership / management level
3. Five officers from supervisory / mid-management levels

4. Five officers from the front line / operational level

In total, this gave a proposed sample of 15 interviews per country, thus a grand potential total of 150 interviews across the ten countries.

In two of the countries, Netherlands and Romania, an additional interview was conducted, giving a total of 152 interviews conducted across the ten countries. The numbers of interviews for each country as well as mean age, gender and rankings are shown in Table 2.1.1.

The interview schedule was devised by the Work Package 3 project team and pilot tested in the UK. This pilot testing experience was used to develop a slightly revised interview schedule. The interview schedule was presented on 21 September 2011 to the whole of the COMPOSITE consortium at the consortium team meeting held in Barcelona, for feedback and comments. Subsequently, some amendments to the schedule were made on the basis of the feedback that was provided.

The interview schedule consisted of both semi-structured and structured parts, with a mixture of open-ended questions and survey questions with the use of Likert scales. The open-ended questions were used to collect rich and qualitative data, and the survey questions were used to generate quantitative data. The interviews took on average about two hours, and this time included the

administration of two questionnaires based upon Likert scales which were self-completed by the interviewee.

The content of the interview schedule was as follows:

1. Interviewee Details – background information required on each interviewee
2. Knowledge Sharing Activities – general introductory questions on knowledge sharing activities that the interviewee is involved in, and on the main types of knowledge shared by the force
3. Knowledge Sharing Internally – questions on knowledge which is shared within the force internally between and across departments / units / staff. At the end of this section questionnaire one was self-completed by interviewees
4. Sharing Knowledge with Other Forces – questions on knowledge which is shared between the force and with other police forces in the country including local, regional and national forces
5. Sharing Knowledge with the Public – questions on knowledge which is shared between the organisation and the general public. At the end of this section questionnaire two was self-completed by interviewees

6. Sharing Knowledge with Police Forces in other Countries and International Police Agencies – questions on knowledge which is shared between the force and police forces in other countries and / or with international police agencies
7. Further Questions – additional questions on barriers / enablers to knowledge sharing

The first questionnaire contained scales assessing an organisation’s knowledge sharing capabilities (knowledge sharing climate, employee involvement in decision making and use of knowledge storage and management systems) and its flexibility in adapting to change. The second questionnaire assessed the police organisation’s preference for different modes of communication (formal versus informal and face-to-face versus virtual).

A template was developed on which country teams recorded the data collected from each interview, and these were submitted to the UK project team for analysis. Following the collation of these templates, the data from the 152 interviews were input into the computer software package NVivo 9. Using this package the project team conducted a thematic analysis via the development of codes across the key areas.

These areas of interest were explored under each of the following four domains of knowledge sharing:

- Sharing knowledge internally
 - Sharing knowledge with other forces (within the same country)
 - Sharing knowledge with the public
 - Sharing knowledge with police forces in other countries and international agencies
- The interviews also explored the impact of leadership and management on knowledge sharing within police forces, with questions around the

encouragement provided to staff to share knowledge.

Given that 152 interviews were conducted drawing from different ranks and police forces in 10 different countries, there should be a reasonable level of generalisability in the conclusions drawn from the analyses where all countries’ data are combined. Table 2.1.1 shows the demographic profile of the participants and Table 2.1.2 shows the forces involved in the interviews.

Table 2.1.1. Demographic profile of interview participants.

	No. of interviews	Age (Average)	Gender ^a	Rank ^b
Belgium	15	47.7	M = 13; F = 2.	R1 = 5; R2 = 2; R3 = 4; R4 = 4.
Czech Republic	15	37.1	M = 11; F = 4.	R1 = 2; R2 = 3; R3 = 5; R4 = 5.
France	15	42.8	M = 11; F = 3.	R1 = 2; R2 = 2; R3 = 7; R4 = 3.
Germany	15	41.5	M = 11; F = 4.	R1 = 2; R2 = 3; R3 = 5; R4 = 5.
Italy	15	43.8	M = 14; F = 1.	R1 = 4; R2 = 7; R3 = 2; R4 = 2.
Macedonia	15	39.1	M = 13; F = 2.	R1 = 2; R2 = 5; R3 = 8; R4 = 0.
Netherlands	16	45.7	M = 11; F = 4.	R1 = 3; R2 = 5; R3 = 5; R4 = 1.
Romania	16	35.5	M = 13; F = 2.	R1 = 1; R2 = 4; R3 = 5; R4 = 5.
Spain	15	46.0	M = 10; F = 5.	R1 = 0; R2 = 4; R3 = 6; R4 = 5.
United Kingdom	15	40.4	M = 11; F = 3.	R1 = 2; R2 = 2; R3 = 5; R4 = 4.
OVERALL	152	Mean = 42.00	M = 118; F = 30	R1 = 23; R2 = 34; R3 = 52; R4 = 34.

^aM= Male, F= Female

^bR1 = Top Level Leadership R2 = Senior Leadership R3 = Supervisory/Mid-Management R4 = Frontline/Operational

Note: The age, gender and rank data was not available for all interviewees hence the sample sizes may not match up in some cases to the total number of interviews for each country.

2.2. Interview study findings

The findings of our interview research are based on a substantive dataset of 152 interviews conducted with junior, middle and high ranking members from 17 police organisations in 10 European countries. We therefore feel we have gained a variety of useful initial insights into the challenges of effective knowledge sharing for police forces in the 21st Century. Based on the interview data, a number of insights can be identified regarding the four dimensions of police knowledge sharing we examined.

2.2.1. Overall perceived effectiveness of knowledge sharing in each of the four dimensions

- During the interviews, participants were asked to rate the effectiveness of their police organisation in sharing knowledge in each of the four domains. The ratings were scored on a five-point scale where 1 = 'Not at all', 2 = 'To a small extent', 3 = 'To a fair extent', 4 = 'To a great extent' and 5 = 'To a very great extent'.
- The average ratings for all four domains lay in the zone between 'To a fair extent' (3) and 'To a great extent' (4). The ratings for internal knowledge sharing effectiveness (mean = 3.43)

were very similar to that for sharing with other forces in the same country (mean = 3.44). However, sharing knowledge with forces in other countries or with international agencies was seen as less effective, although still reasonable (mean = 3.11). It should be noted that a quarter of our respondents had no involvement in international information exchange and hence could not provide a rating. Interestingly, knowledge sharing with the public was classed as the most effective out of the four domains, with a mean of 3.54. Overall then, knowledge sharing

was seen as reasonably effective but with room for improvement.

2.2.2. Types of knowledge shared in each of the four domains

- Participants were asked to describe the three most common types of knowledge shared in each of the domains. Thematic analysis was used to categorise the responses. Table 2.2.1 shows the top ten most frequent categories that appeared in each domain.
- **Internally:** Not surprisingly, the key type of knowledge

Table 2.1.2. Police forces involved in each country.

Country	Name of Police Force(s)
Belgium	Local and federal police active in two Belgian Euregions
Czech Republic	Municipal Police The Police of the Czech Republic
France	Police Nationale
Germany	Brandenburg Police Berlin Police
Italy	Corpo Forestale dello Stato Arma dei Carabinieri
Macedonia	National Police
Netherlands	Politie Amsterdam-Amstelland Politie Gelderland Zuid Politie Rotterdam-Rijnmond
Romania	Romanian Border Police
Spain	Mossos d'Esquadra Policia Municipal de Madrid
United Kingdom	South Yorkshire Police

shared within forces in all 10 countries was *intelligence-related information*, designed to support crime management activity. This includes specific forms of intelligence as well as information that will support and inform intelligence. *Organisational and operational information* were also frequently referenced again, as would be expected. Also important is *knowledge shared to improve practice*, for example sharing best practice, sharing experience and sharing knowledge about practice through training.

- **With other forces in the same country:** The type of knowledge most frequently shared across all countries was *intelligence-*

related information, which also appeared as the most frequent type of knowledge shared in eight of the ten countries. This relates to forces having to communicate on cross-border crimes, regarding details of suspects, witnesses, vehicles, and wanted persons. Other types of knowledge which were frequently shared include *operational information on specific tactics and schemes of work*, and *preventative information* on risks and safety measures which it was felt other forces needed to be aware of.

- **Internationally:** By far the most frequent type of knowledge shared internationally was *intelligence-related information* (e.g. wanted

individuals or groups of interest, vehicles, border security issues, profiles of crimes and criminal cases or records). However, the next most common was *exchanging advice, experience and best practices* between forces, followed by *learning about organisational structures, processes and working methods*.

- **With the public:** In contrast to the above, the most frequent types of knowledge shared with the public were *police activities on crimes, crime prevention information and general information about the area*.

Table 2.2.1. Top 10 types of knowledge shared in each domain.

	Internally	With other police forces in same country	Internationally with foreign police forces or international agencies	With the public
1.	Intelligence-related information	Intelligence-related information	Intelligence-related information	Police activities on crimes
2.	Organisational information	Operational information	Advice, experience and know-how	Crime prevention information
3.	Operational information	Preventative information and awareness	Organisation and working methods	General information about the area
4.	Governance	Crime trends and statistics	Legislation and regulations	Local priorities for the area
5.	Force performance related information	Best practice	Governance	Legislation and regulations
6.	Future priorities	Legislation and policy	Research	General information about the police
7.	Training	Organisational information	Technology changes	Operational information
8.	Sharing experience related knowledge	Court orders and requests for information	Informal contacts	Police responsibilities
9.	Information (non-specific) held on databases	Advice, experiences and know-how	Rumours	Public complaints
10.	Best Practice	Contextual information on local area	Public Relations information	Police procedures for public to follow

2.2.3. Most effective methods of knowledge sharing in each of the four domains

- Participants were asked to describe the three most effective methods of sharing knowledge in each of the domains. Thematic analysis was used to categorise the responses into thirteen categories and table 2.2.2 shows the top ten most frequent categories that appeared in each domain. Interviewees were also asked to name the least effective method and these will be commented upon in each relevant section.
- Internally:** The most effective method identified most frequently across the 10 countries was *direct person-to-person knowledge sharing* (either face to face or

using direct contact methods such as the phone) though this was also cited as one of the least effective because of the difficulty of ensuring an audit trail. The *intranet* and *email* were second and fourth in the top ten most effective methods, suggesting that technology is making a big impact across the countries, but again these are also cited in the least successful list, though the findings suggest that the reasons may often be country specific.

- With other forces in the same country:** *Direct communication with other forces via telephone or face to face meetings* were deemed to be the most effective methods for knowledge sharing, with written documents regarded as the least effective method, due to the need for information

to be shared quickly and written documents being slow to process. Speed was frequently referenced as an explanation for the effectiveness of methods. The co-location of forces in Spain via shared co-ordination rooms was deemed as conducive to effective knowledge sharing. Generally participants felt that the most appropriate methods for effective knowledge sharing were dependent upon the type of knowledge being shared and the urgency at which it needed to be shared.

- Internationally:** The most effective methods for knowledge sharing reflected the *desire for face-to-face interaction with peers through either having cross-force meetings or attending workshops, seminars*

Table 2.2.2. Top 10 most effective methods of knowledge sharing.

	Internally	With other police forces in same country	Internationally with foreign police forces or international agencies	With the public
1.	Knowledge shared person-to-person	Telephone	Meetings with different force members	Press, TV and Radio
2.	Internal intranet	Meetings	Workshops, seminars	Face to face discussions with the public
3.	Written information of any form	Email	Telephone	Website and internet
4.	Email	Databases and electronic systems	Email	Printed materials
5.	Meetings within the force	Written documents	Databases	Meetings
6.	Briefings	Internet and online forums	Hosting or making visits	Hosting or making visits to civilian groups
7.	Databases and systems	Radio	Using international agencies	Social media
8.	Training and related activities	Fax	Face to face discussion	Telephone
9.	Electronic methods (non-specific)	Joint training sessions	Mail	Public events
10.	Mail	Co-location of forces – shared facilities	Printed materials	Email

or conferences. Third and fourth were the technology-mediated mechanisms of *telephone* and *email* which enabled continued direct communication with peers in other forces. Fifth was the useful activity of *exchange visits*, which was seen as not only a means of learning about another force's work but also a means of learning about its culture through an extended stay. Participants liked the directness of these methods and the potential to build up good relationships through extended contact with others. Interviewees struggled to come up with the least effective methods but the four most commonly mentioned were as follows: *mail* (the length of time it takes to receive post), *meetings with different force members from other countries* (the complaint that sometimes meetings had no specific goal and hence became a waste of time), *attending workshops, seminars and courses* (their lack of specific practical application at times) and *having to go through dedicated staff or agencies to share information* (the extra time and paperwork involved). A lack of resources was seen as an underlying reason for the poor application of these methods.

- **With the public:** The most effective methods were considered to be Press, TV and

Radio (wide coverage), *having face-to-face discussions with the public* (ability to build up personal relationships and trust), *using the website and internet* (speed and accessibility of information) plus the standard *printed materials* of letters, leaflets, brochures and posters (can get wide local coverage). The least effective methods of knowledge sharing were again *press, TV and radio* (the perception that the media were just interested in negative stories), the use of *printed materials* (not targeted or engaging enough for specific audiences) and *having local neighbourhood meetings* (not enough participants turning up). The potential limited audience (i.e. focused on young people) for social media like Twitter and being unable to evaluate the impact of these methods was also raised as an issue.

2.2.4. Modes of knowledge sharing

- The interview study also attempted to provide an overall perspective on preferred modes of communication in the participating police forces. Digenti (2000) provided a useful perspective in distinguishing methods along two dimensions: formality – informality and face-to-face – virtual. Based on Digenti's (2000) questionnaire,

the interviewees were therefore asked to rate the extent to which their police organisation utilised the following four modes of knowledge sharing with examples given underneath:

1. FORMAL FACE-TO-FACE METHODS

Examples: courses, seminars, workshops, training, briefings, debriefings

2. FORMAL VIRTUAL METHODS

Examples: tele/video conferences, e-meetings, online courses/training, computer databases, computer systems

3. INFORMAL FACE-TO-FACE METHODS

Examples: networking events, team projects, team building events, conversations with colleagues, social events

4. INFORMAL VIRTUAL METHODS

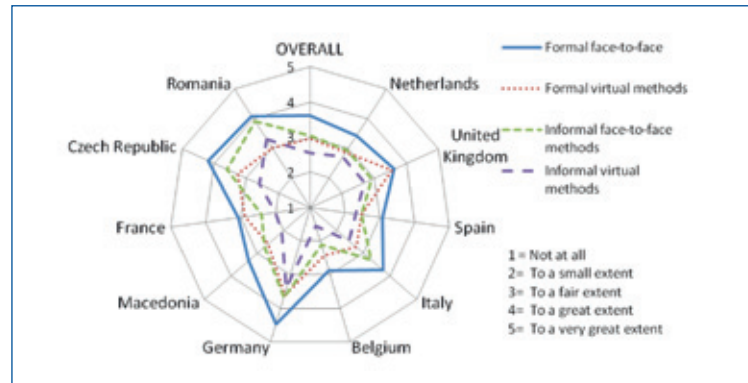
Examples: web-based collaborative spaces/ forums, internet, intranet, social media

- The five-point rating scale went from 1 'Not at all' to 5 'To a very great extent'. Chart 2.2.3 shows the results from the interview sample in terms of overall profile and also broken down by country.
- As might be expected, overall formal face-to-face methods such as briefings and courses proved

to be the most popular mode of knowledge sharing (mean score = 3.62). However, the extent to which this was undertaken varied from country to country, with Germany showing by far the highest level (mean = 4.47), followed by the Czech Republic (mean = 4.20). Belgium, France and Spain showed the lowest levels (mean scores = 2.89, 3.07 and 3.08, respectively). Informal face-to-face methods such as conversations with colleagues or networking events came second overall (mean = 3.04), closely followed by formal virtual methods such as databases or online courses (mean = 2.96). The least popular mode was in terms of informal virtual methods such as online forums and social media (mean = 2.54).

- Interestingly, Chart 2.2.3 also shows that the pattern of second and third most popular modes varied from country to country. Informal face-to-face methods were the second most common method in Romania, the Czech Republic, Macedonia, Germany and Italy while the UK, Belgium and France put formal virtual methods second (Spain put both at the same level).

Chart 2.2.3. Preferences of police organisations for different methods of communication overall and broken down by country.



2.2.5. Barriers to knowledge sharing in each of the four domains

- Participants were asked to describe any particular barriers they faced in sharing knowledge in each of the domains. Thematic analysis was used to categorise the responses and Table 2.2.4 shows the top ten most frequent categories that appeared in each domain. In contrast to the above findings on types of knowledge and methods, there was much more diversity across the domains in terms of barriers.
- **Internally:** The most frequently stated barriers suggest that it is *people and their behaviours within an organisation* that are the biggest barriers, particularly where people are considered ineffective or just lacking

experience. Linked to this are problems raised when people are judged unwilling to share because, for example, knowledge is seen as power, or they lack interest in sharing knowledge of the problems. It is not surprising therefore that another barrier relates to problems sharing knowledge between people and departments (silo working).

- **With other forces in the same country:** The biggest two barriers were cited as *bureaucratic processes for sharing*, including slow, complicated processes and excessive paperwork, and *forces being insular*, working in silos and having incompatible structures, processes and systems which did not communicate with one another. Most referenced as reasons for barriers were *legal systems and formal procedures*

which place restrictions on how to share knowledge with other forces or on what knowledge can be shared. Another aspect mentioned is a lack of trust and no motivation or willingness to share information with other forces. When asked to make suggestions for how barriers to knowledge sharing might be removed, *the introduction of a central system* was most frequently proposed in order to overcome the problems with incompatible systems for sharing between forces. Furthermore, *making it mandatory to share knowledge* was deemed to be likely to improve the willingness to share information and perhaps

even dissolve the issue of insularity of forces. To overcome a lack of resources for knowledge sharing, financial investment was proposed, to improve and increase resources available for knowledge sharing. Finally, an increase in communication between forces was proposed in order to improve relationships between forces.

- **Internationally:** The main barrier to knowledge sharing internationally was in terms of *language barriers*, followed by having *different legal systems in various countries*. Organisational differences were third and covered issues such as: different cultures,

policies and structures of forces; organisational knowledge sharing strategy lacking in forces; and the difficulty of transferring methods between forces due to context differences. Communication procedures being too difficult (e.g. rules too strict, bureaucratic complexity of knowledge sharing paperwork and different procedures in different countries) was next. Lack of motivation by police was reflected in issues such as: lack of support from senior management; unfavourable personality or attitude of individuals; unprofessional behaviour of police officers; different priorities in different countries; and lack of trust from

Table 2.2.4. Top 10 barriers to knowledge sharing.

	Internally	With other police forces in same country	Internationally with foreign police forces or international agencies	With the public
1	Lack of skills and experience	Bureaucratic processes	Language barriers	Legal requirements and sensitivity of information
2	Silos between people and departments	Forces are insular	Different legal systems	Lack of interest from the public
3	Unwillingness to share	Legal requirements and sensitive information	Organisational differences	Lack of resources
4	Poor methods of transfer of relevant information	Lack of processes or strategy for sharing	Communication procedures too difficult	Problems of targeting the right audience
5	Resources	Lack of resources	Lack of motivation by police	Communication procedures difficult for the police
6	Poor management of volume of information (Overload)	Unwillingness to share	Technology shortcomings	Media desire for negative news stories
7	Managing sensitive information	Hierarchical and / or lateral differences	Lack of resources	Public image of the police
8	Lack of access to relevant information	Lack of trust between forces	Lack of skills or experience by police personnel	Lack of skills and experience by police staff
9	Technology related	Political barriers	Problems of targeting the right people in other forces	Lack of understanding by the public
10	Poor leadership	Lack of skills and experience	Different political systems	Technology shortcomings

police forces. Incompatible systems and lack of resources were also highlighted.

- **With the public:** The main barrier to knowledge sharing with the public was clearly due to data protection *legislation and sensitivity of information*, followed by a *lack of interest from the public* (including a lack of respect of, and trust in, authority from certain groups in the population). A lack of resources in time, personnel and money, together with the problems of being able to target the right audience were the next most common. The public image of the police came out as a stronger barrier in certain countries. Official instructions to restrict information flow and dealing with multiple cultures and languages were also given as reasons for low engagement. Improving the standards and structure of communication as well as higher levels were mentioned as strategies for removing some of these barriers.

2.2.6. Facilitators of successful knowledge sharing taken from real-life examples

- In order to gather a more grounded view of factors influencing knowledge sharing effectiveness, participants were asked to describe a situation they had come across where knowledge had been shared successfully in

each of the four domains. Table 2.2.5 provides examples of the real-life situations that were provided across the ten countries. Interviewees were then asked to provide the reasons why the situations had been so effective. Thematic analysis was used to categorise the responses and the major reasons are described below. For internal activities and for sharing with other forces, we also asked for unsuccessful examples in the same manner.

- **Internally:** When talking about particular successful examples of knowledge sharing, the most stated reasons for success were the *accuracy and relevance of information shared and the effectiveness of sharing between key people*. It is also clear that effective systems and processes supported these successes, as did good leadership and team management, and the engaged and committed attitude of staff. Conversely, where unsuccessful examples were given, the most stated reasons related to insufficient access to relevant and accurate information and, secondly, inexperienced and ineffective staff.
- **With other forces in the same country:** Participants highlighted that *effective processes for sharing* were key to inter-force success, and other reasons for success included having

motivated and committed people involved in sharing as well as good relationships between the forces involved. The reasons for knowledge sharing being unsuccessful in the examples provided highlighted the importance of the people involved in knowledge sharing, for the biggest reason why knowledge sharing had been unsuccessful was where the *people involved lacked in skills and experience*. Other reasons for unsuccessful examples included bureaucratic processes and a lack of processes or strategies for sharing.

- **Internationally:** The main reason for the success of international knowledge sharing initiatives was in terms of *building up a good relationship with, and understanding of, the other country's forces*. This was done through having personal contact through meetings and exchange visits in order to create a better understanding of culture, working methods and structure of other organisations. The second most common theme was *sharing information in a regular and timely manner with international partners*. Having staff with a sufficient level of knowledge and experience plus ensuring good team working and co-operation all along the hierarchies of the partner organisations were also seen as important.

- **With the public:** The main reason for the success of knowledge sharing initiatives was through the *public being motivated to share or want information from the police. Providing information that was specific, accurate, timely and relevant to public needs plus getting the public actively involved* were also seen to be major contributors to success.

2.2.7. Additional questions around knowledge sharing capabilities

During the interviews a number of extra questions were posed around the role of leadership and management, the assessment of credibility of knowledge, knowledge sharing strategy, and the passing of experience from older to new recruits.

- **Leadership and Management support for knowledge sharing:** Explaining the methods through

which they were encouraged to share knowledge by their line managers or supervisors, participants indicated most frequently that the need for sharing knowledge was made clear by their line manager or supervisor, thus *the objectives, goals, and requirements for sharing knowledge were well communicated from line managers and supervisors to their staff.* Those participants who had a role in supervising

Table 2.2.5. Examples of situations described by interviewees where knowledge was shared successfully.

	Internally	With other police forces in same country	Internationally with foreign police forces or international agencies	With the public
Belgium	Merging of two police zones	Sharing knowledge in order to successfully police football events	Cross-border vehicle pursuit	Dealing with local burglaries
Czech Republic	Managing an external event of senior dignitaries	Mutual training of officers from different police forces		Running a 'Senior Academy' project for older citizens
France	Catching a rape suspect	Sharing of intelligence in order to successfully arrest a murder suspect		Conducting crime prevention work in schools
Germany	An eviction of squatters	Quick information sharing between two forces during a spontaneous demonstration	G8 summit liaison between British and German officers	Dealing with the Dresden flood
Italy	Cascading training	National joint database accessed by Italian forces to share information	International training workshops	Forest safety campaigns
Macedonia	Catching drug traffickers	Cooperation between three forces to provide security for a visit to Macedonia from the Prime Minister of Turkey	International drug trafficking	Dealing with children living on the street
Netherlands	Management of local drug dealing	Using the learning experiences of other forces in order to create a crime comparison map	Knowledge exchange visit with South African police	Setting up the 'Amber Alert' missing persons SMS text service
Romania	Management of border situations	Sharing of intelligence in order to successfully arrest a suspect	Daily border security meetings	Running a joint agency public awareness event
Spain	Transfer of best practice	Meetings attended by local police forces, the mayor and local security council workers, to plan joint actions	European Capitals Police Network	Running mobile advice centres
UK	Catching an untouchable drug dealer	Working with other forces to combat the growing crime of metal theft		The use of TV crime reconstruction programmes

other members of staff reported that this encouragement was *facilitated via both verbal and written methods*. Participants were encouraged to share knowledge through having a good relationship to their line manager or supervisor, where managers were approachable and easy to communicate with, making participants feel comfortable in sharing knowledge with them. Also important for some participants was that *knowledge sharing was as an essential part of their job, by which it featured on their job descriptions and personal objectives at work, and / or they were required to share knowledge according to official instructions*. Regular meetings with their line manager or supervisor also encouraged participants to share knowledge, giving them a formal opportunity to meet colleagues and exchange information. Finally, a small number of participants described that they were rewarded for sharing knowledge by their line manager or supervisor.

- **Strategies for encouraging knowledge sharing:** Most frequently referenced by participants as a way of how they feel encouraged to share information by their colleagues was by *having regular meetings, through seeing their colleagues and having allocated time in which*

to exchange information. Having a 'culture' of knowledge sharing also encouraged participants to share, by which participants felt that they were expected to share knowledge and exchange information with their team and that this was an expectation and a part of being involved in the organisation.

- **Assessing validity of knowledge:** The credibility of a knowledge source is judged by a variety of methods using criteria such as the *reliability of the source and by cross checking other relevant information*; many forces use a system of grading to do this, managed by a specialised department. Criminal intelligence was also predominantly analysed by specialised departments before being circulated as appropriately within the force.
- **Knowledge sharing strategy:** The majority of participants were aware of their forces' knowledge sharing strategy. These strategies involved the use of databases/systems, predominantly via digital methods of storage, although paper based methods were also used. The strategies also emphasised the use of regular meetings, the intranet and official instructions to share knowledge.
- **Passing on knowledge from experienced to novice officers:** Ensuring experience

is captured, particularly in time of staff reduction, is recognised as important, though not all forces had a strategy or process in place to manage this. Where knowledge was captured the approaches used included *mixed teams of experienced and inexperienced officers, formal training and through informal methods* of sharing knowledge and experience. Some forces did not have any process or method to capture this information.

2.2.8. Knowledge sharing capabilities and organisational flexibility

- During the interview, participants were also asked to complete a short questionnaire in order to statistically test whether there was any significant relationship between a police organisation's knowledge sharing capabilities and its flexibility in adapting to change.
- Knowledge sharing capabilities were assessed along three dimensions: knowledge sharing climate (a seven-item scale from Berg et al., (2008)), employee involvement in decision-making (a five-item scale from Birdi et al., (2004)) and knowledge storage and management systems use (a five-item scale from Birdi et al., (2004)). Organisational flexibility was measured by a ten-item scale adapted from Patterson et

al., (2005). All scales had good levels of internal reliability (i.e. Cronbach's alpha greater than 0.7).

- Table 2.2.6 shows two sets of results outlining the relationship between the three knowledge sharing capabilities and organisational flexibility. The partial correlations (first column of results in the table) shows that flexibility is strongly, positively and significantly related to all three measures of knowledge sharing climate ($r = .55$, $p < .001$), employee involvement ($r = .66$, $p < .001$) and the use of knowledge storage and management systems ($r = .48$, $p < .001$). This is taking into account any differences between the countries. The multiple regression analysis shown in the second column of results shows what happens when all

three knowledge measures entered simultaneously, while again controlling for country. Interestingly, 38% of the variance in police organisational flexibility is accounted for by the knowledge capability measures but employee involvement is very much the key component ($\beta = .52$, $p < .001$). Knowledge storage and management systems are still significant but to a smaller extent ($\beta = .16$, $p < .05$), while the more general knowledge sharing climate becomes non-significant. The lesson from these analyses is that police organisations which have the capability to effectively share knowledge up and down the hierarchy, and formal knowledge management systems to support this, seem to be those who deal best with adapting to change.

2.2.9. Summary

- Knowledge sharing within and between most forces was seen to be effective at least 'to a fair 'extent. Intelligence-related information was the most frequently shared type of knowledge, within and between forces either in the same country or abroad. The findings suggest that there was a strong preference for the more direct methods of communication amongst the forces, using either face to face or phone contact, or through the use of technologies such as email and the intranet and internet. However, in many cases the most effective methods were also seen to have a negative side, for example, emails were positively received but management of these was often a problem, causing 'overload'.

Table 2.2.6. Partial correlation and multiple regression analyses showing the relationship between knowledge sharing capabilities (knowledge sharing climate, employee involvement and knowledge storage and management systems use) and organisational flexibility (n = 144).

	1 Partial correlations controlling for country	2 β regression weight after controlling for country
Knowledge sharing climate	.55***	.14
Employee involvement	.66***	.52***
Knowledge storage and management systems	.48***	.16*
Overall R^2		.60***
Change in R^2 due to knowledge sharing variables after country dummy variables entered		.38***

* $p < .05$ *** $p < .001$

- The inclusion of successful and unsuccessful situations provided valuable and evidence-based insights into the key factors that impact on successful knowledge sharing, for example, the importance of effective processes, speedy access to accurate information, effective leadership and team management and skilled, motivated and committed staff. The majority of the barriers identified focused on the lack of these areas, as well as identifying a lack of all types of resource.
- The findings demonstrated the importance of effective leadership and line management, particularly through activities that both supported and encouraged management activities. It also highlighted the importance of ensuring that knowledge management is an explicit element of performance management.
- Our analyses also indicated that police organisations that have better knowledge sharing capabilities, particularly in terms of letting knowledge flow up and down the hierarchy and using formal knowledge storage and management systems, report better ability to adapt to change.
- The interviews have highlighted the importance of building up the human factors of motivation, trust, knowledge and experience of police personnel and facilitating methods for direct contact between police and non-police stakeholders as a crucial set of knowledge sharing capabilities for police organisations. The next sections of the brochure will describe the more detailed investigations into international knowledge sharing by police organisations through the undertaking of ten case studies (Study 2) and also introduce the practical knowledge sharing diagnostic tool that has been developed as a result of this research (Study 3).

Section 3

Study 2:

**Ten case studies of international
knowledge sharing by the police**

Study 1 indicated that only a small proportion of the police officer sample (about a quarter) undertook any knowledge exchange internationally. Given this lack of information, it was decided that each consortium partner would conduct in-depth case studies to provide richer detail on the challenges of cross-border information exchange. In this section, we therefore outline the methodology and examples for the international case studies and identify the key findings regarding types of knowledge shared, facilitators and barriers, examples of best practice and future challenges. We finish this section with a set of practical recommendations to improve the quality of cross-border knowledge exchange.

3.1 Methodology

All ten COMPOSITE country research teams produced a case study based on one of the two areas of international knowledge sharing. Six case studies focused on cross-border collaborations between police forces in different countries. These were based on a specific project, scheme of work, event, or particular criminal investigation that required cross-border knowledge sharing. The other four case studies explored the work of international policing organisations and the ways in which these organisations facilitated the sharing of knowledge.

Details of these case studies are presented in Table 3.1.

All ten country teams produced their case study based upon a combination of up to five in-depth interviews with police officers involved in cross-border collaborations or members of cross-border agencies, and desk-based research such as review of documentation and websites. Precise research methods differed slightly from country to country, depending upon the topic being studied and the ease of access to organisations in order to conduct the research. The research was conducted between January and March 2012.

3.2 Findings

Full details of the case studies can be found in the Work Package 3 Report 'Knowledge Sharing Capabilities

Table 3.1. Descriptions of the ten case studies on international knowledge sharing by police.

Title of Case Study	Authors	Details
CASE STUDIES ON CROSS-BORDER COLLABORATIONS		
1. Cross-Border Knowledge Sharing...from Cross-Border Police Patrols to Cross-Border Police Initiatives. West-Coast Police, Belgium	Ad van den Oord & Nathalie Vallet, University of Antwerp (Belgium)	Cross-border knowledge sharing between French and Belgian police organisations on the so-called Cross-Border Police Initiatives in West Coast (CBPI), within the Euregion Eurometropool situated at the south-western border of Belgium with France.
2. Police Bilateral Cooperation in Europe. The role of the Police-Customs Cooperation Centre (CCPD) of Tournai (Belgium)	Christian Mouhanna & Joël Ficet, CNRS (France)	Police bilateral cooperation in Europe through the analysis of one specific case study: the Police-Customs Cooperation Centre of Tournai, whose function is to coordinate the exchange of information between French and Belgian Police institutions.
3. Cross-Border Collaborative Work: German-Polish Police And Customs Cooperation Centre In Świecko, Poland	Mario Gruschinske & Susanne Stein-Müller, FHPolBB (Germany)	The role of the German-Polish Police and Customs Cooperation Centre based in Świecko, in sharing knowledge on cross border crime and intelligence between Germany and Poland.

Title of Case Study	Authors	Details
4. Emerging from crisis: police joint training as a key enabler. A case study on Arma dei Carabinieri international cooperation on civilian crisis management	Fabio Bisogni & Pietro Costanzo, FORMIT (Italy)	The “European Union Police Forces Training 2009” (EUPFT 2009), and its ongoing developments within the “European Union Police Services Training 2011-2013” (EUPST 2011-2013). Such initiatives, driven by Italian Arma dei Carabinieri, show how specific, skills-oriented knowledge is shared and how it generates direct benefits for the involved police forces, allowing for tangible skills sharing, harmonisation and interoperability at a national and international level.
5. Experience With Joint Investigation Teams In The Netherlands: A Pragmatic Approach	Henk Sollie, School of Investigation Science, & Theo Jochoms, School of Police Leadership, Police Academy of the Netherlands. P. Saskia Bayerl, Kate Horton & Gabriele Jacobs, Erasmus University Rotterdam (The Netherlands)	Joint Investigation Teams (JITs) in the Netherlands, in cooperation with the surrounding countries Germany, Belgium, England and France, addressing the value of JITs for the cross-border transfer of knowledge within investigations.
6. The Police and Customs Cooperation Centre In Le-Pertus: Cross-Border Collaboration Between Spain And France	Mila Gascó & Charlotte Fernández, ESADE (Spain)	Cross-border collaboration initiative, the Police and Customs Cooperation Centre at Le Pertús (France), demonstrating the value of the centre as a tool for direct cross-border cooperation.
CASE STUDIES ON INTERNATIONAL ORGANISATIONS		
7. A Case Study on Knowledge Sharing by the Police of the Czech Republic and INTERPOL	Zdenko Reguli & Michal Vít, Masaryk University (Czech Republic)	An example of how the Foreign Police of the Czech Republic requests information across the border via the Czech representation of INTERPOL, highlighting the role of INTERPOL offices and joint working places at the borders to neighbouring states in cross-border information sharing.
8. A Case Study on MARRI Regional Centre In Skopje (Migration, Asylum, Refugees Regional Initiative)	Trpe Stojanovski, Stojanka Mirceva, Katerina Krstevska, & Rade Rajkovcevski, University St Kliment Ohridski Bitola (Republic of Macedonia)	The role of MARRI Regional Centre in Skopje, in regional processes, including the role of knowledge sharing between the police organisations in the beneficiary countries. This case study incorporates Albania in the research, meeting the aims of Work Package 3 to include Albania as an additional COMPOSITE country.
9. FRONTEX: Increasing Border Security Through Knowledge Sharing	Claudia Rus, Lucia Rațiu, Cătălina Oțoiu, Gabriel Vonaș, Daniela Andrei & Adriana Băban, Babeș-Bolyai University (Romania)	FRONTEX (European Agency for the Management of Operational Cooperation at the External Borders of the Member States of the European Union) and its’ role in facilitating cooperation and knowledge sharing regarding border control and surveillance among EU countries.
10. A Case Study on CEPOL: European Police College	Kerry Allen & Christine Turgoose, University of Sheffield (United Kingdom)	The role of CEPOL, European Police College, in supporting the exchange and further development of knowledge and research in the field of policing via training and education for senior police officers at a European level.

and Best Practices in Police Organisations: Studies of Policing in Ten European Countries' (Birdi et al., 2012, COMPOSITE Deliverable 3.3). The main findings can be summarised as follows.

3.2.1 Types of knowledge shared internationally

The case studies show that **intelligence and operational information are the main types of knowledge shared via cross-border collaborations**, including data on wanted individuals or groups of interest, vehicles, border security issues, profiles of crimes and details of specific operations, activities, criminal cases or records.

Whilst intelligence and operational information are most commonly shared by cross-border collaborations, those case studies relating to international organisations show that police officers also need and rely on other types of information, the sharing of which is facilitated by international organisations, for example **information on legal procedures, training information, research and information on systems and practices**.

Best practice is frequently shared internationally, via both cross-border collaborations and international agencies. Best practice includes experience and advice on effectively tackling crime, educational and training information,

organisational structures, processes, working methods and performance on key activities.

3.2.2. Facilitators of international knowledge sharing

The methods of knowledge sharing are seen as hugely important to its success. Knowledge sharing is often deemed to be effective if knowledge can be shared easily via **quick, easy to access, uncomplicated communication systems, technology, processes and networks**. Technology is seen as a facilitator to knowledge sharing, with four of the case studies raising this as a key facilitator. Individual case studies provide examples of where technology can facilitate knowledge sharing, for example the case study on CEPOL describes that the CEPOL online system for learning and training hosts a variety of information, making it quickly and easily accessible to police officers across Europe.

Good working relationships across borders are seen as a key facilitator of effective knowledge exchange, and six of the ten case studies raise some aspect of good working relationships as being a facilitator, including having social events, a good working atmosphere and trust, history of good contacts with other organisations and / or forces, culture, networks with other public authorities, building networks and National Contact Points. The case

study on FRONTEX shows that whilst formal agreements, conventions and cooperation treaties exist between the member states which offer guidance on knowledge sharing processes, informal relations are also important to facilitate communication between police officers and consequently the sharing of knowledge. Similarly, important facilitators to knowledge sharing in the German-Polish Police and Customs Cooperation Centre in Świecko, Poland, were the good working relationships between officers at the centre, and the networks and contacts which had been built up over time by senior police officers. The international agency CEPOL is described as facilitating knowledge sharing via the creation of networks between police officers across borders. This is via educational training courses and an exchange programme, where people would meet, exchanging experiences, best practices, procedural regulations, laws and information about policing in their country, and making contacts in other countries. National Contact Points were important for both CEPOL and MARRI, as facilitators of knowledge sharing between countries. National Contact Points are individuals who act as a point of contact and a source of information between parties who need to share knowledge.

3.2.3. Barriers to international knowledge sharing

The biggest barrier to knowledge sharing highlighted in the case studies is clearly that of language, which was mentioned in nine of the ten case studies. **Language** skills play a highly important role in the sharing of knowledge across countries which speak different languages. Without the ability to communicate in a common language, effective knowledge sharing becomes virtually impossible. Also, if information needs to be translated or is misinterpreted, this causes time delays. English appears to be the most commonly used language in communicating across countries, however different levels of proficiency in English causes difficulties in sharing knowledge.

Technology is also a significant barrier to knowledge sharing internationally. Five of the case studies raised this as a barrier, and in particular this was due to differing technological systems being used in different countries, which could not communicate with one another or transfer information

easily. The systematic literature review conducted earlier as part of Work Package 3 (Allen & Birdi, 2011) found that previous literature on knowledge sharing in policing had raised technology as being a key influence upon knowledge sharing. The presence of technology as both a facilitator and a barrier to international knowledge sharing reinforces the findings of this literature review, demonstrating the importance of technology as a key influence upon knowledge sharing across countries.

Other barriers to knowledge sharing highlighted in the comparison across the case studies include organisational differences across countries, with five of the case studies highlighting this as a barrier. Differing priorities, structures of forces, and differing methods and procedures for knowledge sharing can be classed as organisational differences. Also, legal differences between countries are a key barrier. In examples of cross-border cases it is clear that joint operations / collaborative centres can only handle cases which are criminal offences in both countries. Also

raised was the barrier of not knowing about the laws in other countries, i.e. not being aware of what information can or cannot be shared in another country.

3.2.4. Examples of best practice in knowledge sharing

In each of the case studies, participants were asked to describe examples of best practice in international knowledge sharing. Table 3.2 indicates the nature of the practices described.

A great number of examples of best practices in knowledge sharing are demonstrated by the case studies, particularly in terms of joint operations and where having a **common objective, common processes and procedures, and common management**, as well as **clear procedures for information sharing across borders**, can improve the coordination of investigations. Joint Investigation Teams in the Netherlands, and the Police and Customs Cooperation Centres in Świecko, Tournai, and Le-

Table 3.2. Examples of best practice in international knowledge sharing in the case studies.

Title of Case Study	Best Practice in Knowledge Sharing
1. Cross-Border Knowledge Sharing...from Cross-Border Police Patrols to Cross-Border Police Initiatives. West-Coast Police, Belgium	Example of informal information exchange between the French Police and the Belgian West Coast Police, resulting in the apprehension of a suspect who had committed car thefts on both sides of the border.
2. Police Bilateral Cooperation in Europe. The role of the Police-Customs Cooperation Centre (CCPD) of Tournai (Belgium)	Creation of an 'Analysis Unit' within the CCPD, acting as both a facilitator in terms of access to information and also as a stimulator that spontaneously provides police administration with expertise.

Title of Case Study	Best Practice in Knowledge Sharing
3. Cross-Border Collaborative Work: German-Polish Police And Customs Cooperation Centre In Świecko, Poland	Example of successful information sharing from the daily business of the PCCC in Świecko, where a stolen lorry was quickly located and seized across borders via face-to-face information sharing between Polish and German officers.
4. Emerging from crisis: police joint training as a key enabler. A case study on Arma dei Carabinieri international cooperation on civilian crisis management	Training exercises and assessment of exercise sessions , which contribute to the alignment of operational procedures, not only enhancing technical skills, safety and security of operators, but also the overall benefit of the local populations and authorities served by the Civil Crisis Management Missions.
5. Experience With Joint Investigation Teams In The Netherlands: A Pragmatic Approach	Example of successful information sharing through a Joint Investigation Team between Dutch and Belgian Police, resulting in the arrest of criminals committing a number of vehicle crimes across the Netherlands and Belgian border.
6. The Police and Customs Cooperation Centre In Le-Pertus: Cross-Border Collaboration Between Spain And France	The Police and Customs Cooperation Centre as an example of best practice , enabling faster and more efficient information exchange, easier crime detection, earlier identification of criminals, and better quality knowledge on offences.
7. A Case Study on Knowledge Sharing by the Police of the Czech Republic and INTERPOL	An example of communication between a number of policing organisations , including the Patrol Police of the Czech Republic, the office of INTERPOL of the Czech Republic, the office of INTERPOL of Lithuania, and the Lithuanian police and Lithuanian prosecutor's office, in order to identify an individual and issue an arrest warrant. Whilst this case study required a longer time to resolve than the period during which the Police of the Czech Republic can lawfully detain a person, and the individual had to be released, on the other hand, the case study demonstrates that communication between the parties was carried out without problems.
8. A Case Study on MARRI Regional Centre In Skopje (Migration, Asylum, Refugees Regional Initiative)	The project ' Establishment of network for co-operation between border police on international airport border crossing points in MMS ' encompassed several activities and required mechanisms to be developed for the sharing of information, including regular meetings, formal and informal links for information sharing, joint programmes and mutual training and study visits.
9. FRONTEX: Increasing Border Security Through Knowledge Sharing	The organisation FRONTEX as an example of best practice , enabling effective information / data exchange between different member states, joint operations and training programs. Information exchange is generally swift and precise, and the personal relationships that develop in time between officers from different countries help speed the process even further.
10. A Case Study on CEPOL: European Police College	<p>The use of 'webinars' by CEPOL, in order to reach a wide audience, offering great flexibility, for whilst face to face training courses are designed a year in advance, a webinar can be adapted and amended very quickly. Policies and priorities across the EU can change rapidly, for example, in the time of a terror attack. Webinars can address these topics quickly and ensure that they are relevant to the moment in time.</p> <p>The exchange programme as an example of best practice in enabling both informal and formal knowledge to be shared, allowing police officers to establish relationships with their equivalents in another country, crucial for cross-border working, and enabling people to broaden their understanding of cultural differences.</p>

Note: Full details of case studies can be found in Birdi et al., (2012) COMPOSITE Deliverable 3.3.

Pertus clearly are key facilitators of knowledge sharing in joint operations.

International agencies also clearly play a key role in facilitating sharing of knowledge, in particular facilitating the **sharing of best practice**, and **enabling stronger**

communication channels between countries to be developed. The case studies on MARRI, FRONTEX, INTERPOL and CEPOL all describe knowledge sharing across borders as a key objective of the organisation.

3.2.5. Future perspectives on international knowledge sharing

Participants were finally asked to identify what they saw as the future challenges for international knowledge exchange activities.

Harmonisation of approaches across countries was described as important in a number of situations. The streamlining of organisational processes and procedures would make knowledge sharing in the case of cross-border collaborations much quicker and easier, and this could be facilitated via the sharing of best practices across countries. The case studies on Arma dei Carabinieri training programmes in Italy, and the European Training College CEPOL, suggest that advancing towards harmonised approaches in the delivery of training across the EU would improve cross-border understandings and the ease of working together. The case study on CEPOL raises the importance of developing minimum standards for training across the EU and for officers to be at the same minimum level across all EU countries. In sections 3.2.2 and 3.2.3 earlier, we showed technology to be of high importance for international knowledge sharing, and the streamlining of technological systems across countries would clearly have a positive impact upon knowledge sharing.

Continuing the work of building relationships and contacts across borders was seen as crucial for the future. Effective knowledge sharing clearly relies on good working relationships between the participants. A complex system of communication exists across the EU with police forces clearly working

with a number of other forces and with international organisations. The relationships built up are very important for the effectiveness of police work in the future. These relationships need to be encouraged, and **processes for communication need to be quick and smooth**, in order to facilitate effective sharing of information (direct sharing, and in real time).

3.3. Concluding comments and recommendations

The importance of international knowledge sharing was highlighted by all of the case studies. It is imperative for **intelligence and operational information** to be shared quickly and efficiently between countries in situations of cross border operations, where the **police need to be able to work as quickly as the criminals**. Case studies also show the **importance of sharing best practice across countries** and in particular **international organisations are described as having a key role in facilitating the sharing of best practice**.

The case studies emphasise that **working with other organisations is important** and all organisations are required at some point to work with and share knowledge with other police forces or agencies in order to meet their goals. The case study on the Police of the Czech Republic and

INTERPOL demonstrates the ways in which the two organisations need to work together, and the case study on the international agency MARRI shows that MARRI has partnerships with a wide number of other organisations. The case studies focusing on cross-border collaborations clearly demonstrate the **need for police forces to work together and the reliance on other forces in cross-border operations**.

This research conducted by consortium members suggests that a **complex map of communication channels exists across the EU**, made up of a **network of organisations which need to work together**. All ten case studies show, however, that this is not without challenges, and in particular **language and organisational differences as well as different laws, legislations and technological procedures across countries create barriers to knowledge sharing**.

In order to overcome these challenges, the following key recommendations can be made, which may be useful to any officers within police forces and policing organisations that are required to share knowledge internationally:

1. **Standardised technological systems should be created / utilised:** The case studies have shown that technology is of great importance in international knowledge sharing, and if it is

used effectively, technology can be a key facilitator to knowledge sharing. However, it is also named as a barrier, for disparate technological systems across countries result in knowledge being difficult to share. Exploring the use of standardised systems, and making use of the internet and other systems which are accessible to a wide audience, is a key recommendation for improving international knowledge sharing. For instance, the case study on CEPOL describes the use of ‘webinars’ as an example of best practice, through an internet based system, where training sessions are easily accessible to police officers across EU countries.

- 2. Good working relationships should be established across countries:** Clearly having good working relationships between those forces and organisations which need to share knowledge with one another is important in order to facilitate effective knowledge sharing, for this may increase trust, improve informal knowledge sharing, and create clearer communication channels. The examples of best practice in the case studies on the initiatives of the Belgian West Coast Police, and the German-Polish Police and Customs Co-operation Centre, demonstrate good working relationships between those

involved in knowledge sharing, which were used in order to achieve a successful outcome on specific criminal investigations. The case studies describe good relationships being established through social events, networking, exchange programmes, and National Contact Points. The case study on the Belgian West Coast Police initiatives described social events as a key facilitator to knowledge sharing, providing opportunities to actually share and exchange knowledge and information, and allowing the building of stronger personal relationships. Exploration of these as methods for improving relationships is a further recommendation for improving international knowledge sharing.

- 3. Language skills should be improved in those who are required to share knowledge:** The case studies highlighted that language is a key barrier to knowledge sharing, with nine of the ten case studies naming a lack of language skills, or a lack of a common language, as a barrier. Thus a crucial step in improving international knowledge sharing is to ensure that those who are responsible for sharing knowledge internationally have the language skills they need in order to enable them to communicate with others effectively. Language training courses are widely available

in all countries at universities or colleges, and they are also offered by international policing organisations, for example both CEPOL and FRONTEX offer language courses, with FRONTEX describing their language courses as being specific to a policing context, focusing on operational needs and related terminology.

- 4. Awareness of organisational and legislative differences should be improved:** Differing organisational structures and procedures, and differing laws and legislation across countries, have been shown to create barriers to knowledge sharing across countries, in particular due to a lack of awareness of the differences between countries. Those who are required to share knowledge across country borders would be advised to make themselves aware of organisational and legislative differences, and to explore the option of taking training courses or schemes which can facilitate this learning. CEPOL offers training courses with an aim to broaden knowledge of policing differences across the EU. In particular, the exchange programme offered by CEPOL, by which officers visit their equivalents in another country, and spend time working with another police force, is a method by which officers can learn in great detail about both

policing and cultural differences in other countries.

5. **Awareness of international centres / projects / organisations should be improved:**

The case studies on the Police and Customs Co-operation Centres in Tournai, Świecko and Le-Pertus, all describe a lack of visibility of the centre, or a lack of recognition of the importance of the work of the centre, as being a barrier to knowledge sharing. A recommendation here would therefore be to undertake promotional work in order to raise awareness of the important work taking place, the aims and objectives of the centres, and to share examples of best practice from the centres, for example operations or investigations which have had a successful outcome. Whilst this recommendation has been formulated as an outcome of this being raised as a specific barrier for Police and Customs Co-operation Centres, it should be noted that it is also important to improve the visibility of all other international projects, operations, investigations, and the work of international organisations. We have described how international knowledge sharing was not seen to be as common an activity as other domains of knowledge sharing, with 23% of the interviewees reporting that

knowledge was shared 'not at all' and a quarter of the sample at least not answering the interview questions on international knowledge sharing. Thus a further recommendation here is that further promotional work should take place in order to raise awareness of international police work more generally across EU police officers.

Section 4

Study 3: Development of the Effectiveness of Knowledge Sharing in Police Organisations Diagnostic Instrument (EKSP0-DI)

An important objective for COMPOSITE Work Package 3 was to develop a practical survey instrument for police forces to help them assess and benchmark their knowledge sharing capabilities and identify major barriers to improving knowledge sharing performance. We therefore used the cross-national studies reported earlier in this report as a basis for developing the Effectiveness of Knowledge Sharing in Police Organisations Diagnostic Instrument (EKSP0-DI). In this Section, we outline the design of the EKSP0-DI instrument and highlight key findings regarding levels of effectiveness of knowledge sharing, the types of knowledge shared and major barriers in different domains.

The EKSP0-DI package consists of an **assessment questionnaire** and **a manual** which provides **guidance on when and how to use the questionnaire, how to interpret the results and understand the findings,** and also provide **recommendations based on current research and best practice** identified during our studies. It also includes insights from earlier COMPOSITE projects. During development of the instrument, all ten COMPOSITE consortium countries were consulted on the first draft and their **involvement and constructive feedback** led to the development of the pilot version of the questionnaire. All countries were involved in piloting the questionnaire in some way, and despite some difficulties experienced by countries to engage forces with

the questionnaire, an excellent **481 completed pilot questionnaires** were received. As part of the pilot, countries and respondents were asked to provide feedback on the process and the questionnaire. **The data analysis and the feedback then informed the design of the version of EKSP0-DI** provided in the report.

4.1. Survey methodology

Initially, a first draft was developed by the members of the WP3 team and this was then sent to other members of the COMPOSITE consortium for comment. They were asked to assess issues such as language, clarity and relevance of content. This feedback then informed the development of the pilot version of the questionnaire. Each country was asked to take part in the pilot to ensure the final product reflected, as far as possible, the views of all countries. We proposed a number of ways in which they could be involved.

Option 1: Sample of a whole force or sub-unit of a force

The purpose of this option was to ensure sufficient numbers to allow an effective statistical analysis of the pilot responses to enable the findings to inform the design of the final version of the questionnaire. It also provided the opportunity to ask for some feedback about the usability and suitability of the questionnaire.

The option asked for a sample size between 50 and 100, which included people from each of the five sampling categories and where possible, people with experience of working with the public, with other forces and / or with international police forces and agencies.

In return, a sample feedback report was offered for the unit or force involved, to be delivered once the WP3 project had been completed. This report was intended to give feedback to the forces concerned and not for wider circulation.

Option 2: Targeting individuals who met the criteria

This approach was intended to assess the usability and suitability of the questionnaire in more depth. The option asked for a sample of five individuals per each of the five sampling categories and where possible, up to five people with experience of working with the public, with other forces and / or with international police forces and agencies.

For this option, there was also the opportunity to have an illustrative feedback report to allow country teams to see what this report may look like.

Option 3: A mixture of the two previous approaches

This option provided countries with the chance to use both approaches to the pilot in a way that suited their circumstances.

Countries were asked to run the pilot in a way that was the most appropriate

way for their pilot population. All countries were then provided with an Excel spreadsheet to input their responses, and guidance to help them do this.

It is clear that some country teams found it easier to engage their relevant country force(s) than others. This seems to reflect both the structure of the country forces, the nature of the relationship and / or the value the forces placed on the idea of a diagnostic instrument.

The questionnaire was circulated in a number of ways:

- Some country teams sent the questionnaire to a central person who circulated it to individuals in the relevant force. This was done both via email and by circulating paper versions of the questionnaire.
- The emailed questionnaires were either circulated in the 'paper format' for printing, or circulated using an email version of the questionnaire which allowed respondents to complete them on a computer and return them by email.
- In at least two cases the questionnaire was placed online, using systems such as Lime Survey, a free and open source web based survey tool. In these cases the link was forwarded by a contact in the relevant force.
- One country completed the questionnaires during interviews.
- Surveys were collected in some cases by a representative within the force and handed back to the country teams, and in others the questionnaire was given or sent directly back to the country

team to preserve anonymity and confidentiality. The former approach occasionally caused some difficulty when checking the progress of results because of the lack of 'control' over the process.

A total of 481 completed pilot questionnaires were received. Responses were then entered into SPSS and analysed by the WP3 Project Team. Comments about the questionnaire, including the comments made in the focus group, were collected and summarised.

4.2. Demographic profile of survey respondents

A total of 481 responses were received and the following tables break down responses by country, age, gender, tenure and rank.

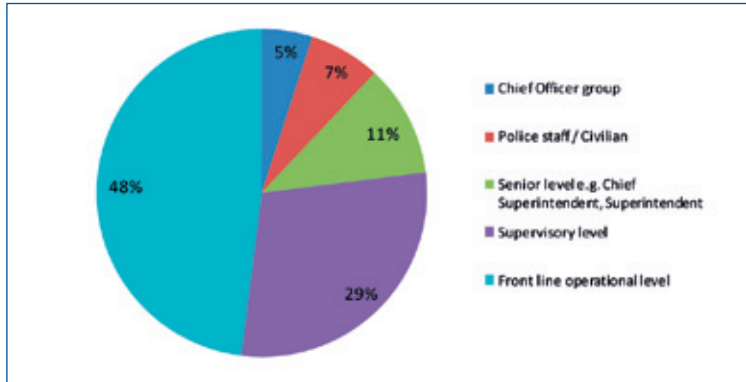
Table 4.2.1. Numbers of responses per country.

COUNTRY	RESPONSES RECEIVED
Belgium	15
Czech Republic	5
Germany	62
Italy	33
Macedonia	25
Netherlands	62
Romania	100
Spain	132
UK	47
Total no. of responses	481

Table 4.2.2. Demographic profile of respondents.

DEMOGRAPHIC DATA	
Age	Respondents' ages ranged from 20 to 59 years
Gender	78% were male, 22% were female
Tenure	Tenure ranged between 1 and 42 years. The most frequently occurring length of service was 5 years but this was only by a small margin.

Chart 4.2.3. Percentage breakdown by rank.



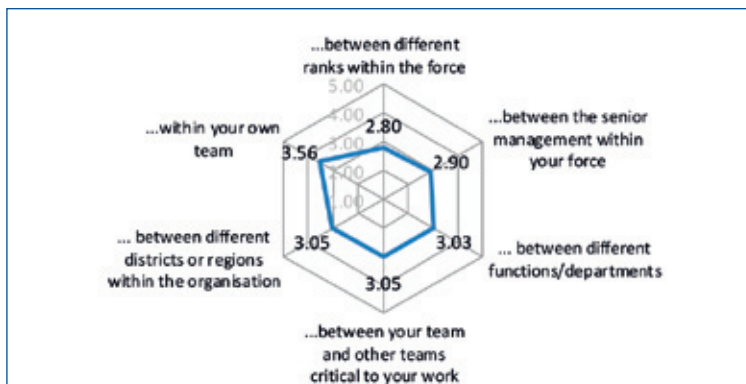
4.3. Internal knowledge sharing findings

4.3.1. Overall perceptions of internal knowledge sharing

Overall perceptions are quite encouraging and not surprisingly higher when talking about sharing

knowledge within the immediate team (mean score = 3.56 out of 5 i.e. between 'effectively' and 'very effectively'). Levels of knowledge sharing between different regions/districts, functions/departments and with other teams were also rated to be effective (mean scores = 3.05, 3.05 and 3.30 respectively) (Chart 4.3.1). Interestingly, knowledge

Chart 4.3.1. Overall effectiveness of internal knowledge sharing.



Key: 1= Not at all effectively, 2= Not very effectively, 3=Effectively, 4= Very effectively, 5= Highly effectively

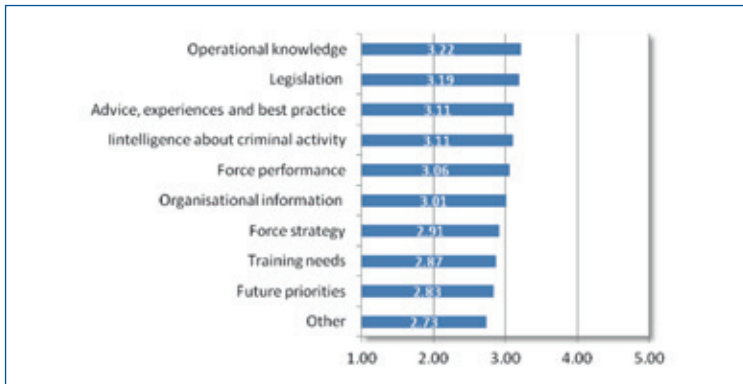
sharing between senior management and between different ranks was seen to be slightly less effective than other modes (mean scores = 2.90 and 2.80 respectively). The overall average for internal knowledge sharing across the above dimensions was 3.11.

Participants were also asked to rate how effectively they shared different types of knowledge within their organisation (chart 4.3.2). The overall profile was around the 'effectively' level, with operational knowledge and information on legislation rated as being the best (mean score = 3.22 and 3.19, respectively). Advice, experience and best practice plus intelligence about criminal activity were next (3.11 for both). Force strategy (2.91), training needs (2.87) and future priorities (2.83) came out at the lowest levels.

4.3.2. Methods of internal knowledge sharing

The technology-based approaches of computers, intranet, emails, force radio and internet came out as the most common methods for sharing knowledge internally (Chart 4.3.3). The more recent phenomena of social media and smartphones were only used by a minority of respondents (44% and 40%, respectively). In a similar fashion, participants rated themselves as being most competent in using force radio (mean score 3.8 out of 5 i.e. towards being

Chart 4.3.2. Effectiveness of sharing different types of knowledge within the organisation.



Key: 1= Not at all effectively, 2= Not very effectively, 3=Effectively, 4= Very effectively, 5= Highly effectively

‘very competent’), followed by email (3.75), internet (3.72) and the intranet (3.68) (Chart 4.3.4). Social media (3.38) and smartphones (3.10) showed moderate levels of competence on average, suggesting

that significant numbers of employees still feel they need to improve in their skills in using these methods. The lowest rated method for competence was in terms of using databases and systems (mean = 2.91); given the

Chart 4.3.3. Frequency of use of different methods of internal knowledge sharing.



Key: 0 = Do not use

1 = Do use this method

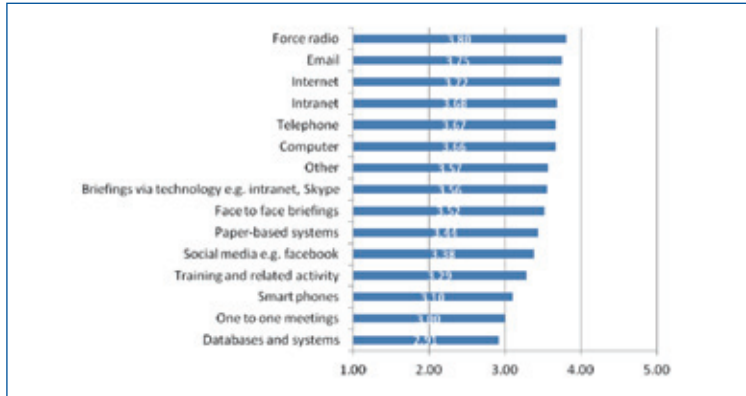
amount of investment police forces are putting into setting up such electronic initiatives, this may be an area to ensure personnel are trained well enough to make full use of the capabilities of systems.

4.3.3. Barriers to internal knowledge sharing

Participants did not, on the whole, report any dramatic barriers to internal knowledge sharing (chart 4.3.5). The most frequent barrier was lack of staff resources or time (mean score = 3.27 i.e. around ‘sometimes a barrier’). This is not that surprising, however, given that ‘ineffective or inaccessible technology’ is the second most frequently cited barrier, this gives cause for concern when the previous section highlights that the most frequently used methods rely on technology.

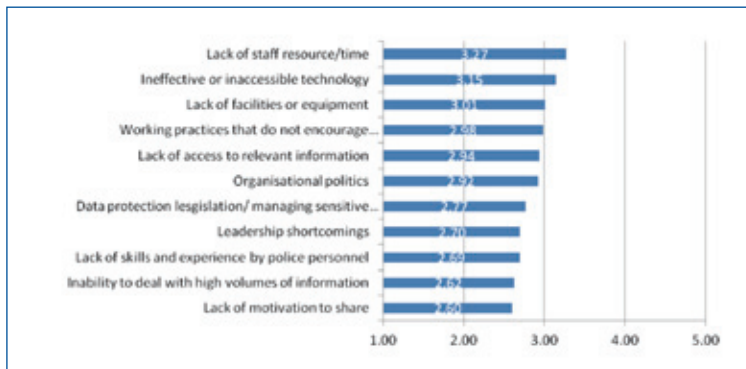
Poor working practices are frequently cited in organisations as a key issue but it is an area where improvements can make a significant difference to both working life and business efficiency and may help to mitigate some problems caused by the lack of staff resource and time. Lack of access to relevant information is a key issue highlighted by our research, which identified that access to relevant information was a critical part of successful knowledge sharing events and one of the key reasons why unsuccessful events failed.

Chart 4.3.4. Competence in using methods of sharing knowledge.



Key: 1= Not at all competent, 2= Slightly competent, 3=moderately competent, 4= very competent, 5= extremely competent

Chart 4.3.5. The most common barriers to internal knowledge sharing.



Key: 1 = Never a barrier, 2 = Rarely a barrier, 3 = Sometimes a barrier, 4 = Often a barrier, 5 = Always a barrier

We conducted some additional statistical analyses (partial correlations) to examine the extent to which each of the barriers actually correlated with levels of internal knowledge sharing. Interestingly, the biggest predictor was leadership

shortcomings ($r = -.34, p < .001$), followed by organisational politics ($r = -.27, p < .001$), lack of motivation to share ($r = -.26, p < .001$) and lack of access to relevant information ($r = -.26, p < .001$).

4.4. External knowledge sharing findings

4.4.1. Effectiveness of knowledge sharing with external parties

Our survey was also interested in the effectiveness of knowledge sharing with external institutions and stakeholders. Chart 4.4.1 shows again that police respondents felt they were reasonably effective overall with external levels of knowledge sharing. In terms of other police forces, information exchange with foreign forces and international agencies such as Interpol and Europol (mean scores 3.37 and 3.39 out of 5, respectively) was felt to be a little better than with forces in the same country (3.14). It should be noted that only a small proportion of respondents stated that they engaged in sharing knowledge with foreign forces (33%) or with international agencies (25%).

Exchange with other public agencies was also regarded as reasonably effective. The best relationships seemed to be with the fire service (3.26), followed by judicial bodies (3.17) and social services (2.92). Knowledge sharing with health services was rated as least effective (2.88). Knowledge was shared more effectively with local government (3.04) compared to national (2.93) or other government (2.90). Finally, knowledge exchange with the public

Chart 4.4.1. Effectiveness of knowledge sharing by police organisations with external institutions and stakeholders.



Key: 1= Not at all effectively, 2= Not very effectively, 3=Effectively, 4= Very effectively, 5= Highly effectively

was rated as effective in general (3.18).

Interestingly, the pattern of findings regarding the four main domains we considered change with the larger EKSP0-DI sample (481) compared to the findings from the smaller sample (152) in the interviews we conducted for study 1. In study 1, we had the following mean scores: Internal (3.43), with other forces in the same country (3.44), internationally (3.11) and with the public (3.54). However, with the larger sample in study 3, we have the following: internal (3.11, although averaged across six items), with other forces in the same country (3.14), internationally (3.38) and with the public (3.18). Therefore, it appears that international knowledge sharing is seen as the most effective (although it was based on a sub-

sample of respondents who engage in this activity), followed by public activities and then similar levels for internal and inter-force.

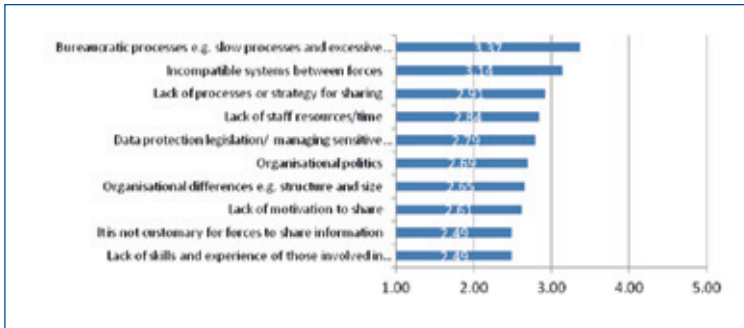
4.4.2. Barriers to external knowledge sharing

The EKSP0-DI survey went into more detail with regards to three sets of external stakeholders highlighted as important in our previous COMPOSITE work: other police forces in the same country; forces in other countries or international policing agencies; and with the public. Charts 4.4.2 and 4.4.3 show that bureaucratic processes and excessive paperwork were the most common barriers to better knowledge sharing both with other forces in the same country (3.37) and internationally (3.14). However, the next most important

barriers differed between the two domains. Within the country, incompatible systems between forces (3.14) and lack of formal processes or strategy for sharing (2.91) were second and third most prevalent in the list. In contrast, the issues of having different legal systems in countries (2.83) and managing sensitive information across borders (2.78) were second and third for international operations.

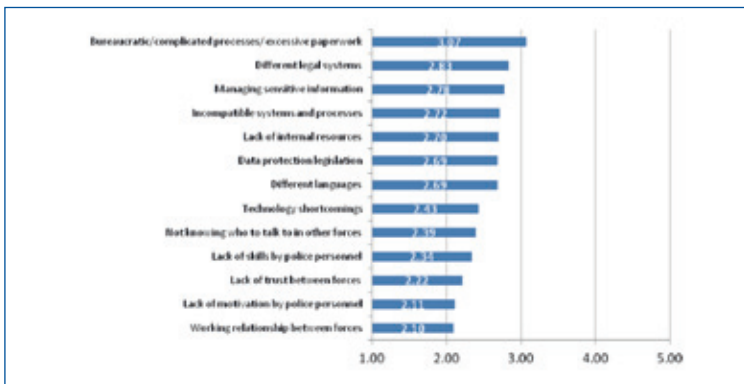
Our additional statistical analyses (partial correlations) examined the extent to which each of the barriers actually correlated with levels of knowledge sharing with the different police institutions, controlling for country, rank and tenure of respondent. The biggest predictor for exchange with other forces in the same country was lack of motivation to share ($r = -.32, p < .001$), followed by it not being customary to share information ($r = -.27, p < .001$), dealing with sensitive information/legislative requirements ($r = -.25, p < .01$) and lack of process or strategy for sharing ($r = -.23, p < .01$). In contrast, the biggest predictors for barriers to international knowledge sharing were not knowing who to talk to in the other forces ($r = -.28, p < .05$), followed by lack of skills and experience by police personnel ($r = -.27, p < .05$), lack of motivation to share ($r = -.26, p < .05$), lack of trust between forces ($r = -.23, p < .05$) and speaking different languages ($r = -.23, p < .05$).

Chart 4.4.2. Barriers to knowledge sharing with other forces in the same country.



Key: 1 = Never a barrier, 2 = Rarely a barrier, 3 = Sometimes a barrier, 4 = Often a barrier, 5 = Always a barrier

Chart 4.4.3. Barriers to sharing knowledge with police forces in other countries or international policing agencies.



Key: 1 = Never a barrier, 2 = Rarely a barrier, 3 = Sometimes a barrier, 4 = Often a barrier, 5 = Always a barrier

With regards to the public (chart 4.4.4), the managing of sensitive information (3.41) and data protection legislation (3.23) proved to be the most common barriers. A negative public perception of the police (3.02) came third and suggests public engagement and information campaigns might be worth addressing. Our statistical analyses, on the other hand, showed the most significant predictors of public

knowledge sharing effectiveness to be having bureaucratic / complex procedures for communicating ($r = -.26, p < .001$) and ineffective/ inaccessible technology ($r = -.26, p < .001$). Lack of skills/experience ($r = -.25, p < .001$) and negative public perception of the police ($r = -.24, p < .01$) were other notable correlates.

4.5. Concluding comments

This section has shown the viability and utility of the EKSPD-DI tool. The survey was grounded in previous COMPOSITE research findings and provided a vehicle to test levels of perceived internal and external knowledge sharing effectiveness. Internal knowledge sharing seemed to be more effective horizontally within teams and with other functions or regions and slightly less effective vertically between senior management and other ranks. Overall levels of effectiveness were moderately good, although there is room for improvement.

This current version of EKSPD-DI can be circulated by paper or circulated and completed via email; it can also be converted to an online survey, something a number of countries did during the pilot. The **manual**, developed to give guidance to forces carry out a self-assessment of their knowledge sharing capabilities, can be found in a separate report (Turquoise et

Chart 4.4.4. Barriers to knowledge sharing with the public.



Key: 1 = Never a barrier, 2 = Rarely a barrier, 3 = Sometimes a barrier, 4 = Often a barrier, 5 = Always a barrier

al., (2012), COMPOSITE Deliverable 3.4) which can also be downloaded from the COMPOSITE website <http://www.composite-project.eu>

Section 5

Conclusions and Recommendations

In this brochure we have described the efforts of COMPOSITE Work Package 3 to provide greater understanding regarding the challenges of knowledge sharing with different stakeholders in policing contexts and to highlight recommendations for improving practice in this area. In this final section, the results from the three phases of empirical research are synthesised to answer our original four research questions, regarding effectiveness and type of knowledge sharing in different domains, the usefulness of different methods and major barriers and facilitators. We then discuss theoretical and methodological implications of the research, before rounding off with a substantive set of practical recommendations for police organisations wishing to improve their knowledge sharing effectiveness.

5.1 Answering the research questions

RQ1: How effective are police organisations at sharing knowledge both internally and with external bodies (other forces in the same country, with forces in other countries / international agencies and the public)?

- Overall, participating police organisations felt on average they were effective, rather than outstanding, at internal knowledge sharing. **Knowledge sharing within teams was**

rated as most effectively done, followed a way behind by sharing between teams and between functions. Although still very near the 'effective' rating, **knowledge sharing between ranks and between senior management was relatively rated a little lower** indicating that the vertical flows of knowledge up and down the hierarchy are not executed as well as horizontal flows between teams or functions.

- Knowledge sharing effectiveness internationally with forces in other countries or international agencies was rated highest of the four domains we asked participants to consider, followed by interacting with the public, then with other forces and internally.

RQ2: What different types of knowledge are most commonly and effectively shared in the above four domains?

- Thematic analyses of the qualitative responses in the interview and case studies produced eight major categories of knowledge sharing conducted by police organisations: **intelligence and related operational information; information on the workings of the police; police performance-related information; crime prevention information; legislation and policy; information about the region; learning; and rumours.**

- Analysis of the data gathered from piloting the diagnostic tool showed that internally, police participants felt the **sharing of intelligence and operational information plus legislation issues were done the most effectively but that sharing strategic priorities and information on future directions was done somewhat less effectively.** This does echo the earlier finding where information sharing hierarchically between ranks was rated as less effective than horizontal movement of knowledge between teams or functions.

RQ3: How effective are different methods of knowledge sharing in the above four domains?

- Interview participants were asked to describe the most and least effective methods of knowledge sharing they had experienced. Thematic analysis of the qualitative data generated a taxonomy of 13 methods: **personal interactions; paper-based methods** including letters, newsletters and posters; **telephone; email; Web-based methods** such as intranets, the internet or social media; **videoconferencing; police radio; databases and online systems; group learning activities** such as workshops and seminars; **co-location of forces; exchanges and visits between forces; intermediary agencies**

like CEPOL; and the media (press, TV and radio).

- **Most methods were described as having their advantages and disadvantages.** For example, there was a preference for face-to-face interactions, such as discussions, meetings or briefings. Building up motivation, trust and good relationships between stakeholders came out consistently as precursors of effective knowledge sharing and this does seem to occur most successfully when people can meet each other. Face-to-face methods, however, were described as sometimes being slow, and the use of technology such as telephone and email was more advantageous at times when information was required to be shared very quickly.
- The interview study in section 2 also attempted to provide an overall perspective on preferred modes of communication in the participating police forces with regards to formality and virtual versus personal nature of the methods. As might be expected, overall **formal face-to-face methods such as briefings and courses proved to be the most popular mode of knowledge sharing in all countries.** Informal face-to-face methods such as conversations with colleagues or networking events came second overall,

closely followed by formal virtual methods such as databases or online courses. The least popular mode was in terms of informal virtual methods such as online forums and social media.

- Interestingly, the pattern of second and third most popular modes varied from country to country. Informal face-to-face methods were the second most common method in Romania, the Czech Republic, Macedonia, Germany and Italy while the UK, Belgium and France put formal virtual methods second.

RQ4: What are the major antecedents (barriers and facilitators) of successful knowledge sharing in the four domains?

- The three studies we conducted generated many different factors that were proposed to influence knowledge sharing in the four domains. In this part of the brochure, we therefore integrate the findings to produce a new conceptual framework of antecedents of knowledge sharing by police organisations with different stakeholders (Figure 5.1). The antecedents can be grouped into 10 types of major factors (A to J) and we also describe the more specific indicators of these factors below.

A. Staff capabilities – personal experience and knowledge,

motivation to share knowledge, the development of good relationships between institutions or the public, team effectiveness and co-operation and leadership

B. Process capabilities – effective operational management, flexibility of working methods and location, clear responsibilities and goals, effective procedures and documentation for knowledge sharing and shared goals and responsibilities

C. Technology capabilities – accessibility and reliability of technologies

D. Financial resources – the amount of money available for investing in knowledge exchange activities

E. Information characteristics – clarity of information, accessibility of information, sensitivity of information (e.g. legal restrictions) and accuracy and relevance of information

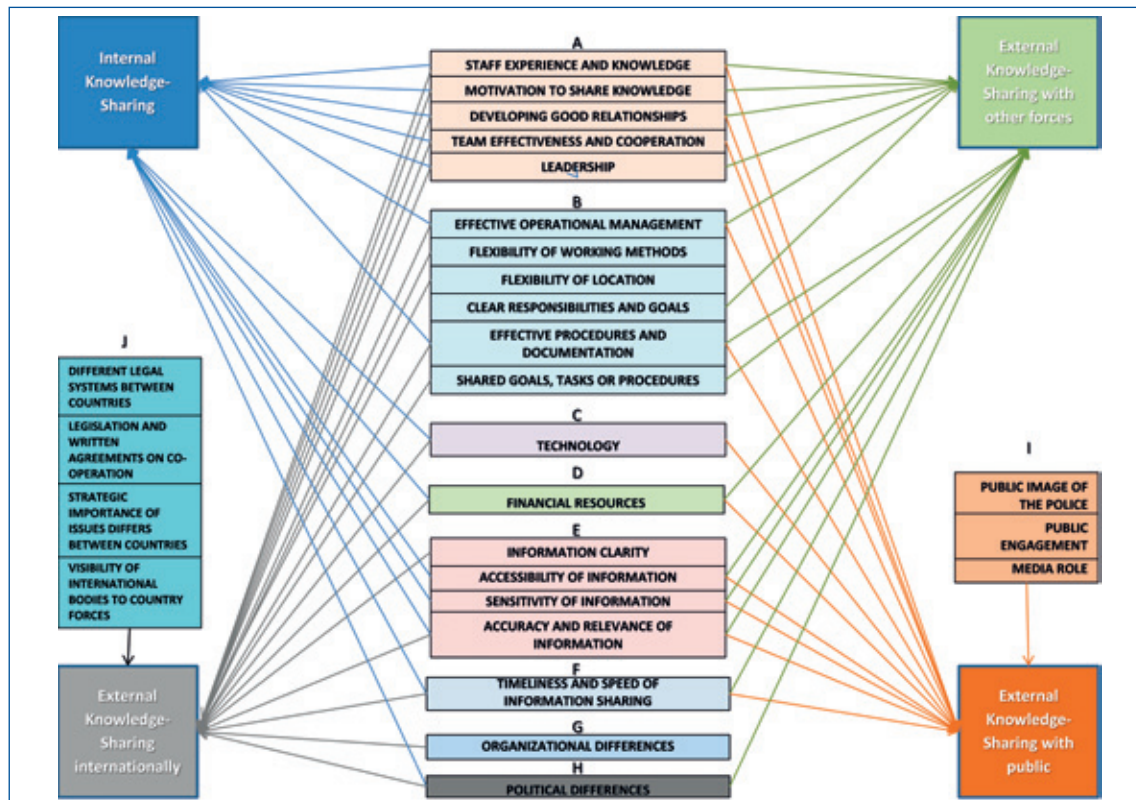
F. Timeliness and speed of information sharing

G. Organisational differences – different cultures, policies and structures of police forces

H. Political differences – intraorganisational and interorganisational (personal politics and power issues) and national (Governmental Politics)

- I. **Public factors** – public image of police, police engagement with the public, the media (Press, TV and Radio)
 - J. **International factors** – different legal systems, joint legislation or written agreements on co-operation, strategic importance of issues in countries and visibility of international agencies with regular police forces
- Links can be made between each of the above factors and the four domains of knowledge sharing, highlighting that certain factors are important for all modes of knowledge sharing but others appear to be only relevant to specific contexts (see Figure 5.1). For example, the most commonly reported barriers on average across all our participants for each of the four domains were as follows:
 - o **Internally:** Lack of staff resources/time; ineffective or inaccessible technology; lack of facilities/equipment; and working practices that do not encourage sharing.

Figure 5.1. Factors influencing the effectiveness of different domains of knowledge sharing (as derived from the empirical research conducted in this project).



- o **With other forces in the same country:** Bureaucratic processes; incompatible systems between forces; lack of formal processes or strategy for sharing; and lack of staff resources/time.
 - o **Internationally:** Bureaucratic processes; different legal systems between countries; and managing sensitive information.
 - o **With the public:** Managing sensitive information; data protection legislation; and negative public perception of the police.
- Statistical analyses in study 3 also showed that **police organisations who were better at knowledge sharing had the following characteristics in each of the four domains:**
 - o **Internally:** Better leadership; less organisational politics; greater motivation to share among staff; and provided staff with access to relevant information.
 - o **With other forces in the same country:** Greater motivation to share among staff; made it customary to share information with other forces; were less likely to report dealing with sensitive information/legislative requirements as a barrier;

and had formal processes or strategies for sharing information.

- o **Internationally:** Knew who to talk to in other forces; had sufficiently skilled and experienced personnel; greater motivation to share knowledge internationally; had greater trust with other forces; and had staff able to speak different languages.
- o **With the public:** Had less bureaucratic procedures for communicating with the public; more effective and accessible technology; had sufficiently skilled and experienced personnel; felt there was a more positive perception of the police.

5.2. Theoretical and methodological contributions

This brochure has outlined the extensive research work undertaken by Work Package 3 and it is worth outlining here a number of its theoretical, empirical and methodological contributions. Our aforementioned systematic literature review of knowledge sharing research critiqued the lack of in-depth and comprehensive studies in policing contexts (Allen & Birdi, 2011). Consequently, the studies we reported here added value in a

variety of ways. First, the qualitative interviews we undertook in the first study allowed us to inductively build up taxonomies of knowledge shared in police contexts, the practices used for moving that knowledge from actor to actor and antecedents of knowledge sharing. Second, by investigating external knowledge sharing with different parties as well as internal mechanisms we were able to separate those factors or capabilities that were important for all types of knowledge sharing from those that were domain specific. For example, the staff capabilities of motivation, knowledge and skills were influential for all dimensions but the role of the media and public image of the police was only seen as relevant with regards to public interactions. Third, the past literature has focused mainly on research within one country but our consortium allowed us to create the constructs from a cross-cultural sample, thus aiding claims of generalisability and also highlighting cultural differences. In study 1 we showed how formal face-to-face methods were the most popular modes of communication across all our countries but the second most popular varied. Informal face-to-face methods were the second most common method in Romania, the Czech Republic, Macedonia, Germany and Italy while the UK, Belgium and France put formal virtual methods second. Fourth, based on our research we have presented a new conceptual framework of antecedents

of knowledge sharing in the different domains which can now provide the basis for more specific hypothesis testing in follow-up studies. Fifth, we have generated a significant amount of empirical data from our studies against which participating forces can compare themselves in the future and other forces can compare themselves now.

We have also generated novel methodological contributions. For the first study, we developed a new set of interview protocols to elicit deeper understanding of knowledge sharing in policing contexts. The protocols were tested in many different cultural contexts to ensure their generalisability. These protocols will be made available to future researchers who wish to use them in their own work on the topic. The most significant contributions come from the development of the new EKSPD-DI instrument which we have specifically designed for evaluating levels of knowledge sharing effectiveness in police organisations and identifying major barriers to those activities. The tool is based on the extensive research we conducted in our cross-cultural interviews and has been piloted in nine of the consortium countries, with 481 police organisation members completing it. We have developed a manual alongside the instrument to facilitate its application for both researchers and police organisations who wish to use the tool themselves (see Section 4 and Turgoose et al., 2012).

5.3. Practical Recommendations

Based on our extensive research in this area, we can offer a number of practical recommendations for police organisations wishing to improve their internal and external knowledge sharing effectiveness:

1. **Emphasis should be placed upon people skills in knowledge sharing:** Having motivated and committed people involved in the sharing of knowledge were common reasons provided for successful knowledge sharing. Conversely, a lack of skills and experience were big reasons behind the examples of unsuccessful knowledge sharing. Examples of topics for training should include:
 - **How to deal with the Press, TV and Radio** effectively since the media came out as the most effective method of sharing knowledge with the public
 - **Using social networking applications** such as Facebook and Twitter since certain countries found this a very effective approach for communicating with the public while other countries had little experience of it to date

- **Data protection legislation in other countries** to build up awareness of what can and cannot be shared across borders
2. **Effective leadership and leading by example:** Our findings clearly indicate that the perceived attitude and behaviour of leaders to knowledge sharing is likely to impact on knowledge sharing across the command, which will in turn affect the effectiveness with which it operates. Therefore, it is important to involve and engage all staff, from the top to the bottom of the force when identifying and addressing issues relating to knowledge sharing. Line managers good at promoting knowledge sharing internally were those who had regular meetings to encourage discussion, incorporated information sharing in work objectives, provided written or verbal encouragement and made the activity part of the working culture.
 3. **Clear and efficient processes for quick knowledge sharing** should be developed between forces, with speed often being crucial for knowledge sharing, particularly around the sharing of criminal intelligence on specific cross-border cases. The use of direct methods of communication,

including telephone and face-to-face meetings, should be explored for quick transfer of information. Reducing bureaucracy or complexity of procedures for information sharing would also help.

4. **Strategies should be developed in conjunction with other forces** for how knowledge is to be shared and when, and **contact lists for communication drawn up** – barriers to knowledge sharing included lack of process and strategy, as well as not knowing who to contact within other forces.
5. **The possibilities for co-location of forces should be explored.** The insularity of forces, where forces worked in silo and did not communicate, was described as a key barrier to knowledge sharing. The co-location of organisations in Spain via shared co-ordination rooms was deemed as conducive to effective knowledge sharing and the lessons learnt from examples such as these could be explored for other countries.
6. **Better relationships should be developed between police officers from different forces** (within the same country and other countries) **through regular face-to-face activities** such as cross-border meetings, workshops, seminars and exchange visits.

7. **Standardised technological systems should be created / utilised:** The case studies have shown disparate technological systems across countries result in knowledge being difficult to share. Exploring the use of standardised systems, and making use of the internet and other systems which are accessible to a wide audience, is a key recommendation for improving international knowledge sharing. For instance, the case study on CEPOL (see Section 3) describes the use of ‘webinars’ as an example of best practice, through an internet based system, where training sessions are easily accessible to police officers across EU countries.
8. **Good working relationships should be established across countries:** Clearly having good working relationships between those forces and organisations which need to share knowledge with one another is important in order to facilitate effective knowledge sharing, for this may increase trust, improve informal knowledge sharing, and create clearer communication channels. The examples of best practice in the case studies on the initiatives of the Belgian West Coast Police, and the German-Polish Police and Customs Co-operation Centre, demonstrate good working relationships between those involved in knowledge sharing, which were used in

order to achieve a successful outcome on specific criminal investigations. The case studies describe good relationships being established through social events, networking, exchange programmes, and National Contact Points. Exploration of these as methods for improving relationships is a further recommendation for improving international knowledge sharing.

9. **Language skills should be improved in those who are required to share knowledge:** The case studies highlighted that language is a key barrier to knowledge sharing, with nine of the ten case studies naming a lack of language skills, or a lack of a common language, as a barrier. Thus a crucial step in improving international knowledge sharing is to ensure that those who are responsible for sharing knowledge internationally have the language skills they need in order to enable them to communicate with others effectively. Language training courses are widely available in all countries at universities or colleges, and they are also offered by international policing organisations, for example both CEPOL and FRONTEX offer language courses, with FRONTEX describing their language courses as being specific to a policing context, focusing on operational needs and related terminology.

10. Awareness of organisational and legislative differences should be improved:

Differing organisational structures and procedures, and differing laws and legislation across countries, have been shown to create barriers to knowledge sharing across countries, in particular due to a lack of awareness of the differences between countries. Those who are required to share knowledge across country borders would be advised to make themselves aware of organisational and legislative differences, and to explore the option of taking training courses or schemes which can facilitate this learning. CEPOL offers training courses with an aim to broaden knowledge of policing differences across the EU. In particular, the exchange programme offered by CEPOL, by which officers visit their equivalents in another country, and spend time working with another police force, is a method by which officers can learn in great detail about both policing and cultural differences in other countries.

11. Awareness of international centres / projects / organisations should be improved:

The case studies on the Police and Customs Co-operation Centres in Tournai, Świecko and Le-Pertus, all describe a lack of visibility of the centre, or a lack

of recognition of the importance of the work of the centre, as being a barrier to knowledge sharing. A recommendation here would therefore be to undertake promotional work in order to raise awareness of the important work taking place, the aims and objectives of the centres, and to share examples of best practice from the centres, for example operations or investigations which have had a successful outcome. A further recommendation here is that further promotional work should take place in order to raise awareness of international police work more generally across EU police officers since many of our participants had no knowledge of this area.

12. EKSPD-DI has been developed to provide police organisations with the opportunity to assess how effectively knowledge in being shared in a range of situations.

Its purpose is to: i) enable police organisations to assess the effectiveness of their own knowledge sharing capability and provide them with the opportunity to collect benchmark information; ii) identify the most common barriers to effective knowledge sharing and iii) provide recommendations for strategies for dealing with the barriers. We would recommend that organisations use EKSPD-DI as part of their activities designed to

help support development of their knowledge sharing capabilities. The EKSPD-DI manual and questionnaire can be downloaded from the COMPOSITE website (<http://www.composite-project.eu>).

5.4. Concluding comments

In summary, Work Package 3 set out to develop a greater understanding of the different influences on distinct types of police knowledge sharing. We feel we have achieved that through the dedicated efforts of the consortium members to generate an enormously rich database of qualitative and quantitative data collected from over 600 police members across the ten consortium countries plus input from the Albanian perspective. This has allowed us to make substantive contributions in a number of areas. Theoretically, we have used the cross-cultural data to develop a framework of factors influencing knowledge sharing both within police organisations and with other stakeholders. Methodologically, we have developed and tested new interview and questionnaire instruments to help researchers expand their work in their area of police research. Practically, we have identified a large number of strategies for improving knowledge sharing effectiveness, many of which have been generated from police organisations themselves.

Furthermore, we have used the research to develop a knowledge sharing diagnostic tool (EKSPD-DI) which police organisations can use to benchmark their capabilities in the area and highlight aspects where this can be improved to enhance performance and the management of change.

A final point we would like to make is that the contributions of this project are themselves a testament to the power of effectively sharing knowledge across organisational, regional and cultural boundaries.

References

- Allen, K., & Birdi, K. (2011). *Knowledge Sharing Practices and Issues in Policing Contexts: A Systematic Literature Review*. COMPOSITE Report 3.1.
- Berg, E. M., Dean, G., Gottschalk, P., & Karlsen, T. J. (2008). Police management roles as determinants of knowledge sharing attitudes in criminal investigations. *International Journal of Public Sector Management*. 21: 271-284.
- Birdi, K., Allen, K., Turgoose, C., McDonald, I., and Vössing, J. (2012). *Knowledge Sharing Capabilities and Best Practices in Police Organisations: Studies of Policing in Ten European Countries*. 2nd Cross-Country Comparison Interim Report. COMPOSITE Report 3.3.
- Birdi, K., Wood, S., Patterson, M., & Wall, T. (2004). Individual, team and organizational learning practices and organizational performance. Paper presented at the *Academy of Management Meeting 2004*, New Orleans, USA, August 9-11 2004.
- Born, A., & Witteloostuijn, A. (2011). *Policing Opportunities and Threats*. COMPOSITE Brochure WP 1.2.
- Denef, S. (2011). *ICT Trends in European Policing*. COMPOSITE Brochure WP 4.1.
- Digenti, D. (2000) Make space for informal learning. *ASTD Learning Circuits*, August 2000. <http://ddigenti.wordpress.com/papers/make-space-for-informal-learning/>
- Patterson, M., West, M., Shackleton, V., Dawson, J., Lawthom, R. Maitlis, S., Robinson, D. & Wallace, A. (2005). Validating the organizational climate measure: links to managerial practices, productivity and innovation. *Journal of Organizational Behavior*, 26, 379-408.
- Turgoose, C., Birdi, K., Allen, K., McDonald, I., and Vössing, J. (2012). *Effectiveness of Knowledge Sharing in Police Organisations – Diagnostic Instrument (EKSPD-DI)*. COMPOSITE Report 3.4.

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<http://www.composite-project.eu>

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