



Brain-be 2.0

Belgian Research Action through Interdisciplinary Networks

POLICY BRIEF

Policy Brief n° 1

[BE-FORINTEL] - [BUILDING THE FOUNDATIONS OF A FORENSIC INTELLIGENCE TOOL IN BELGIUM]

Belgium has a rich forensic infrastructure, but it remains trapped in judicial silos. The Be-ForIntel project investigated how forensic data, DNA, ballistics, drugs, fingerprints and more, can be systematically used for crime analysis and proactive investigation. The conclusion is clear: the technical building blocks are in place, but the cultural, legal and institutional conditions are still missing. With 21 concrete recommendations, this project provides policymakers and practitioners with a pragmatic roadmap.

Context and question(s) of research

Crime is rarely an isolated event. Burglars work in series, drug networks are transnational, and serial violent offenders leave traces again and again. Yet forensic evidence in Belgium today is processed almost exclusively **case by case**: a DNA profile serves to identify one suspect, a cartridge case to link one weapon to one crime. The broader connections, between cases, offenders, phenomena, remain largely invisible.

This is known as '**linkage blindness**': the systematic failure to recognise connections due to institutional, organisational and cognitive barriers. Forensic intelligence offers a solution: the systematic use of forensic data *across cases*, to identify criminal series, patterns and phenomena in support of tactical, operational and strategic decision-making.

The central research question:

To what extent can the forensic data currently available in Belgium be systematically exploited for intelligence purposes, and what legal, organisational and technical conditions are required to do so?

In Belgium, several actors are involved in the production and management of forensic data: the National Institute of Criminalistics and Criminology (NICC), the Federal Police (via DJT and DJSOC), and local police zones. These actors operate largely independently, with incompatible systems and no shared framework for exploiting forensic data beyond the individual case file.

Moreover, the Federal Police refused to make its national data available to this research, despite formal authorization from the College of Prosecutors General. This is itself a significant finding: it reveals a democratic deficit in the governance of scientific access to police data that requires urgent attention.

Main findings

What is forensic intelligence?

Forensic intelligence is more than a technical tool, it is a different way of working. It involves a cyclical process in which forensic data are collected, analysed and fed back to decision-makers, at three levels:

Level	What it delivers
Tactical	Investigative leads, suspect identification in an ongoing case
Operational	Recognition of criminal series and local phenomena
Strategic	Trends, policy intelligence, prevention strategies

What already exists in Belgium?

The project mapped forensic data flows at the NICC and the Federal Police. Six implicit forms of forensic intelligence were identified — but they all function in isolation:

System / practice	Institution	Level
DNA database comparisons	NICC (DIS)	Tactical
Ballistic case linkage (BNDB)	NICC	Tactical
Amphetamine profiling (EDPS)	NICC	Operational
Trace database — footwear & ear prints (SDB)	Federal Police	Tactical
Biometric identification (BIS/AFIS)	Federal Police	Tactical
ViCLAS — violent crime linkage	Federal Police	Tactical

Why is this potential not being realized?

Four structural barriers prevent the development of forensic intelligence in Belgium:

- › **Culture.** Forensic science is traditionally seen as a judicial tool, not an intelligence source. A 'zero-error culture' is incompatible with the probabilistic reasoning that intelligence requires.
- › **Legal ambiguity.** There is no clear legal basis for the cross-case use of forensic data. The GDPR is frequently interpreted in an overly restrictive way, even where cross-case analysis would be lawful.
- › **Institutional fragmentation.** Data are scattered across incompatible systems at the NICC, the Federal Police and local zones. There are no shared standards or linkage mechanisms.
- › **Insufficient resources.** New functions are created without adequate staffing, IT infrastructure or strategic direction, leading to overload and institutional disillusionment.

A core finding: the central structural misunderstanding

Forensic scientists, investigators and magistrates each have a different understanding of what forensic intelligence is and who is responsible for it. This produces a 'Pandora's box' effect: as soon as an institution commits to forensic intelligence, external demand immediately exceeds available capacity, resulting in staff burnout and institutional disillusionment.

Conclusion and recommendations

The obstacles are real and deep-rooted, but they are surmountable. The scientific expertise, forensic infrastructure and institutional goodwill exist in Belgium. What is missing is a coherent framework: legal, organizational and evaluative. The project's 21 recommendations are grouped at three levels:

Level 1 — Legal and normative framework**R1****Establish a shared legal definition**

Adopt a legally anchored definition of forensic intelligence that clearly distinguishes between case-level forensic support (tactical) and proactive, cross-case analysis (operational/strategic).

R2**Create a legal basis for cross-case analysis**

Develop a dedicated legal instrument, or amend existing legislation (DNA Act, Police Function Act, Code of Criminal Procedure), governing the collection, cross-referencing and analysis of forensic data for intelligence purposes, in full compliance with the GDPR and the EU Law Enforcement Directive.

R3**Formalize inter-institutional data sharing**

Establish formal mechanisms for sharing forensic data across institutional boundaries, based on explicit legal grounds, standardized formats and agreed access protocols.

Level 2 — Institutional and organizational conditions**R4****Position the NICC as a knowledge hub**

Position the NICC as a methodological knowledge centre, not a monopoly, providing standards, training and analytical support to partner institutions.

R5**Start small, but deliberately**

Identify the unit or domain with the most favorable starting conditions (data availability, practitioner motivation, legal clarity) and focus initial efforts there. The NICC Drug Expertise Centre is the strongest candidate, given the existing judicial mandate of the National Drug Commissioner.

R6

Prevent the 'Pandora's box' effect

Before launching any forensic intelligence function, explicitly define its scope, realistic output capacity and communication to potential requestors, and secure the necessary resources in advance.

R7

Bridge the cultural gap

Invest in shared training for forensic scientists, investigators and magistrates. Engage magistrates and police leadership as active co-designers, not passive recipients of outputs.

Level 3 — Research, training and democratic accountability

R8

Commission a legal analysis of the Belgian framework

Commission a targeted legal analysis of existing Belgian legislation (DNA Act, Police Function Act, Code of Criminal Procedure) with concrete proposals for amendment or new instruments.

R9

Develop and test pilot protocols

Develop and test forensic intelligence pilot protocols in specific domains, with a formal project design, a legal compliance review and a structured evaluation framework.

R10

Guarantee scientific access to police data

Urgently establish a legal framework and practical procedures giving researchers access to judicial and police data, with appropriate data protection safeguards. The current situation, in which the Federal Police refused access despite formal authorization, is unacceptable and requires political will from the Ministers of Justice and the Interior.

The bottom line

Forensic intelligence is not a distant prospect, the building blocks already exist. What is needed is the political will to create a coherent legal framework, to give institutions the resources to fulfil their mandates, and to grant scientific research the access it needs to contribute to a safer and more democratically accountable society.

Read more

Stappers, C., Mauquoy, M., Harvey D., Ballèvre N., Vandeviver, C., Vanderbeken, T., Gason, F., Ribaux, O. & Renard, B. *Be-ForIntel: Building the foundations of a Forensic Intelligence tool in Belgium*. Final Report. Brussels: Belgian Science Policy Office 2026 – 110p. (BRAIN-be 2.0 - (Belgian Research Action through Interdisciplinary Networks

Information

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