NATIONAL INSTITUTE OF JUSTICE

UNDERSTANDING FORENSIC INTELLIGENCE:
THE NIJ FRAMEWORK

Solving crimes requires information, and the sooner investigators get that information, the more effective it is. In law enforcement, "forensic intelligence" describes using forensic data early in an investigation, when that information can accelerate the process of solving the case. It also means using data across cases to understand crime trends and identify links between cases, such as serial crimes. The forensic results might not be confirmed and ready for court yet, but they are a powerful tool for making connections between evidence, suspects, cases, and sites of crime. That information can guide law enforcement away from dead ends and toward meaningful leads.
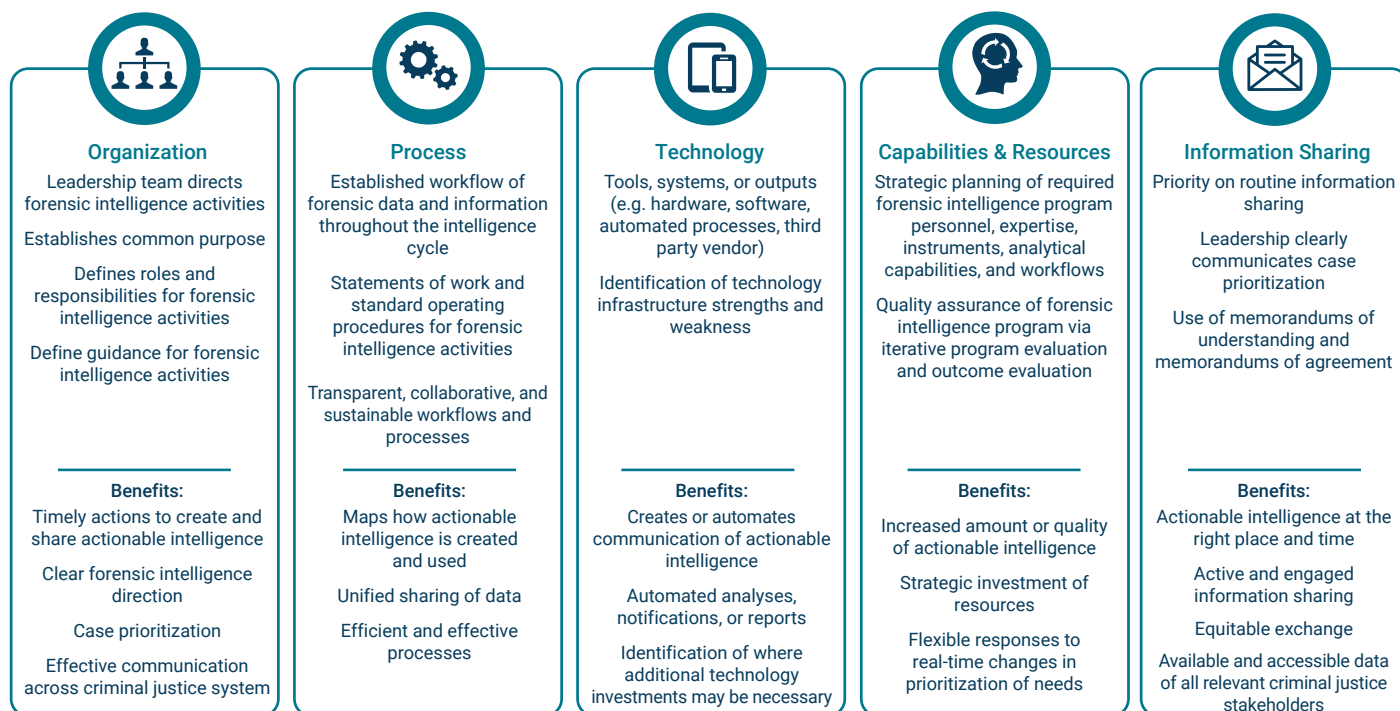
The key to forensic intelligence is making data *actionable* as quickly as possible, so results leave the laboratory fast enough to steer law enforcement's actions. For example, early DNA results can eliminate suspects before officers spend time investigating them, and early ballistics data can connect a linked series of crimes using the same weapon. Forensic data can also reveal patterns to help officers disrupt ongoing crimes and prevent new ones, instead of responding only to crimes that have already happened. For example, field testing samples of drugs seized by patrol officers can reveal new drugs arriving in an area before they become widespread.

Five Pillars of Forensic Intelligence

Forensic intelligence works best when it is part of a system. Links between evidence and cases do not just appear randomly. Investigators uncover those links when they have systems in place to gather and compare information from a wide range of sources — including forensic laboratory results but also police incident reports and even public health data. The systems for sharing information can be as complex as new statewide intelligence centers or as simple as weekly meetings between stakeholders (see the sidebar "Forensic Intelligence in Practice").

To help law enforcement agencies build and refine a forensic intelligence system that fits their needs and resources, the National Institute of Justice (NIJ) has created a framework for the essential pieces of a working forensic intelligence operation. The NIJ framework has five pillars: Organization, Process, Technology, Capabilities and Resources, and Information Sharing (see exhibit 1). Each pillar is necessary for successfully putting forensic intelligence into action.

Exhibit 1. NIJ's Five Pillars of Forensic Intelligence

Organization
Leadership team directs forensic intelligence activities

Establishes common purpose

Defines roles and responsibilities for forensic intelligence activities

Define guidance for forensic intelligence activities

Benefits:
Timely actions to create and share actionable intelligence

Clear forensic intelligence direction

Case prioritization

Effective communication across criminal justice system

Process
Established workflow of forensic data and information throughout the intelligence cycle

Statements of work and standard operating procedures for forensic intelligence activities

Transparent, collaborative, and sustainable workflows and processes

Benefits:
Maps how actionable intelligence is created and used

Unified sharing of data

Efficient and effective processes

Technology
Tools, systems, or outputs (e.g. hardware, software, automated processes, third party vendor)

Identification of technology infrastructure strengths and weakness

Benefits:
Creates or automates communication of actionable intelligence

Automated analyses, notifications, or reports

Identification of where additional technology investments may be necessary

Capabilities & Resources
Strategic planning of required forensic intelligence program personnel, expertise, instruments, analytical capabilities, and workflows

Quality assurance of forensic intelligence program via iterative program evaluation and outcome evaluation

Benefits:
Increased amount or quality of actionable intelligence

Strategic investment of resources

Flexible responses to real-time changes in prioritization of needs

Information Sharing
Priority on routine information sharing

Leadership clearly communicates case prioritization

Use of memorandums of understanding and memorandums of agreement

Benefits:
Actionable intelligence at the right place and time

Active and engaged information sharing

Equitable exchange

Available and accessible data of all relevant criminal justice stakeholders

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Getting Started

To implement a forensic intelligence system, law enforcement agencies do not have to completely change their current intelligence analysis or investigation processes. They need to reexamine how they collect information for their cases and how they communicate with their partners, specifically their forensic laboratory components.

For law enforcement agencies interested in implementing forensic intelligence, here are some starting points:

1. **Talk to your forensic laboratory about the resources they need to get results more often and more quickly.** Evidence does not become intelligence until the laboratory can analyze it. Without a fast pipeline of information from forensic analysts to investigators, no forensic intelligence effort can get off the ground. But forensic laboratories have limited time, money, and equipment. They need to know what law enforcement's priorities are so they can match those priorities as closely as possible in their own work.

2. **Create clear goals before launching the program.** Measurable goals are the only way to track whether a program is doing what it is supposed to do. If an agency wants to increase its case clearance rates but those rates stay the same after the start of a forensic intelligence program then the agency knows that it needs to modify the program. Law enforcement should also make sure to define and track the goals of its partners, too. For example, the manager of a forensic laboratory might want to track whether sending data to law enforcement earlier can decrease the amount of testing requests for their case. The long-term success of a forensic intelligence program depends on aligning law enforcement's goals with the goals of forensic laboratories and other partners who contribute to the program.

3. **Forensic intelligence is a group effort, and training should reflect that.** Forensic intelligence can be a big change from the way agencies traditionally do business. In order for all the partners to start sharing information with each other more quickly, everyone will have to learn their new role in the process and start relying on new people. The best way to establish trust in this new way of operating is to train everyone in the new system together. Otherwise, if training in forensic intelligence keeps the old divisions between different agencies, new lines of communication will be too weak to succeed.

> **To learn more about NIJ's work in forensic intelligence, go to**
>
> **NIJ.ojp.gov/topics/forensic-intelligence.**

Forensic Intelligence in Practice

Adopting a forensic intelligence model does not mean discarding existing intelligence strategies. Instead, forensic intelligence approaches (represented as yellow arrows) can be built into existing investigation processes without changing the entire workflow of an individual case. Early use of forensic data and preliminary results in the investigation cycle can generate useful investigative leads and bring about faster case resolution. Processes that were linear or siloed are bridged by a holistic view of data, overcoming linkage blindness and allowing connections to be made that were not visible before. Developing a forensic intelligence program involves adding some or all of the feedback shown in yellow.
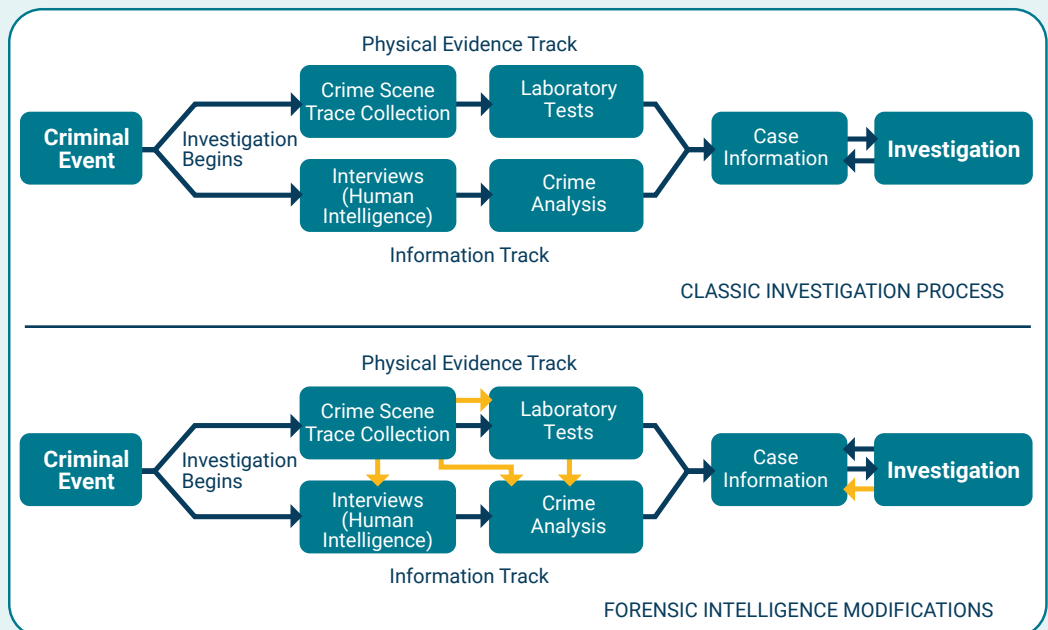
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