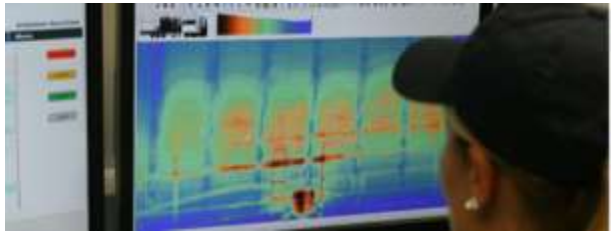

An Evolutionary Approach to Border Security of the Future

Paul Hollingshead, Regional Director

March 2019

CARGO SCANNING & SOLUTIONS

THE OSI SYSTEMS FAMILY OF SECURITY COMPANIES

Planning and implementing border security

Principles for success

1 Intelligence Preparation

Understand the latest smuggling methodologies and adversarial tactics as they affect you

2 Mission Analysis

In-depth understanding of all stakeholders, freedoms and constraints

3 Plan of Attack

Effective actions placed to support and achieve your goals

4 Effective Resource Management

Identify and assign the appropriate resource to achieve each action

5 Synchronisation & Control

Efficient coordination, resource integration, and management

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Artificial Intelligence

Why are we driving toward it?

Security agencies' drive to innovate is driven by several factors:

- The need to effectively leverage vast amounts of collected data
- The need to stay ahead of evolving threats
- Pressure to operate with constrained resources and budgets

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Operations must lead the way

Security agencies have many influences impacting their objectives

- Policies
- Threats
- Financial constraints
- Physical environment

Once operational intent is defined, industry supports objectives, resulting in a confluence of:

- Operations
- IT software
- Security equipment

Operations must lead these functions on the path towards AI supporting border security

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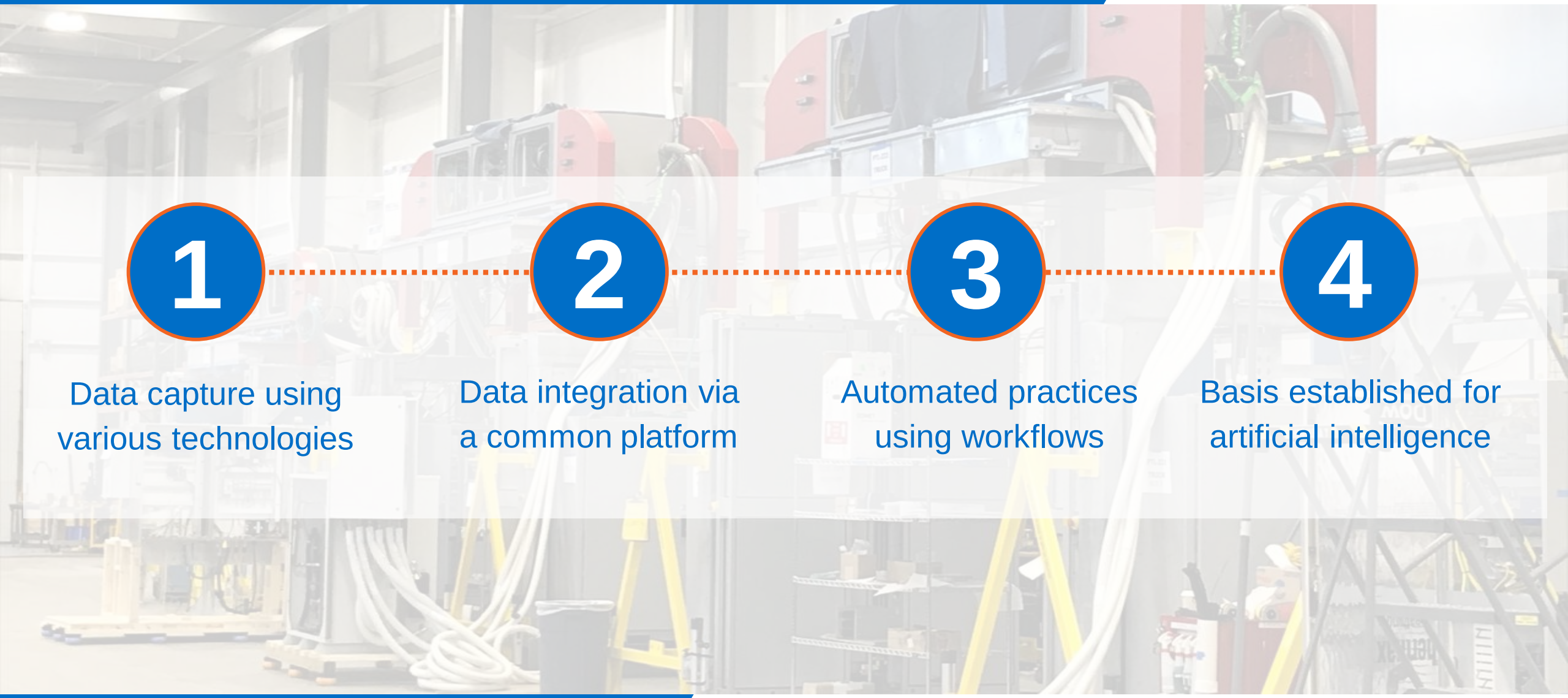
Stepping stones on the path to artificial intelligence



1. Data capture using various technologies
2. Data integration via a common platform
3. Automated practices using workflows
4. Basis established for artificial intelligence

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1 Data capture

Border security agencies rely on various data capture technologies

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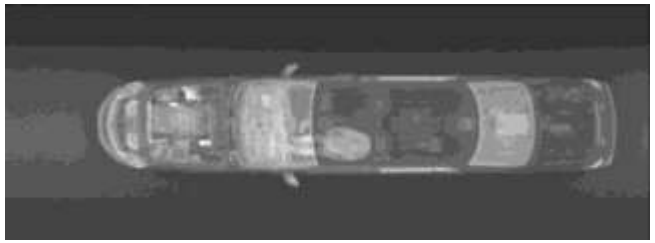
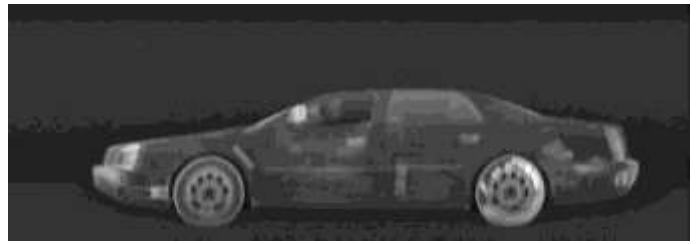
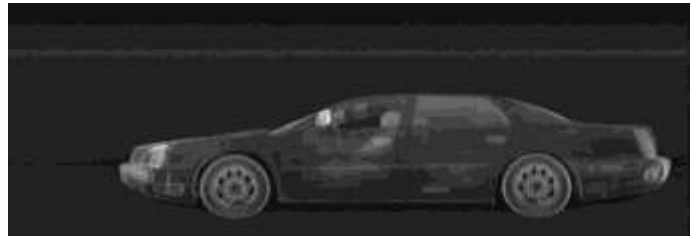
Border security agencies rely on various data capture technologies







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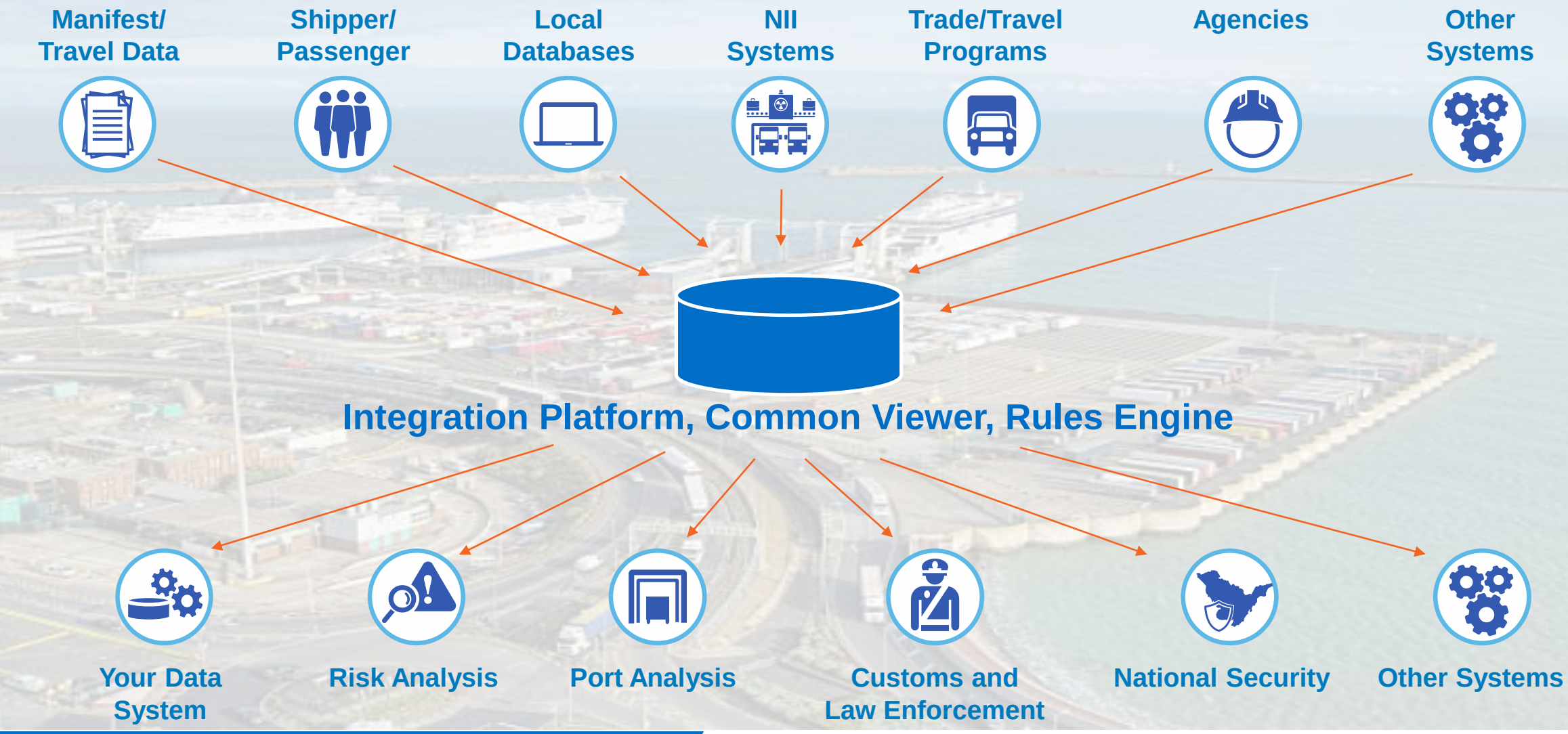
2 Data integration



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3 Automating security practices

With a common operating picture, practices can be mapped to feed, organize and analyse data which further informs actionable intelligence.

Security leaders must decide which processes to measure and how to sequence them to create workflows that lead to:

- Process improvements
- Increased efficiency
- Improved border security

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4 Machine learning and AI

We aren’t there—yet.

- The range and variety of data are too broad at this point
- We must rely on humans in a changing environment to identify/detect threats
- More data will lead to better machine learning models and ultimately better decisions
- Continue to focus on improving our threat detection technology and human skills through innovation and training as we progress toward an AI solution

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Key Takeaways

- We are still building the path toward ML and AI
- Operations should lead with support from industry's security technology and IT
- Continue to focus on the steps that will lead to a more successful border security solution:
  1. Data capture from existing and new technology
  2. Data integration via a common platform
  3. Automating practices using workflows
  4. Invest in enhancing human element and gathering data as we work toward AI

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Thank You!

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