



COMPLETE SOLUTION FOR INSPECTION

ARPIA – ARTIFICIAL INTELLIGENCE



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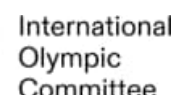


The solutions developed by VMI Security meet the requirements of the most important market segments.

- AIRPORTS
- PORTS
- PENITENTIARIES
- MEDICO-LEGAL INSTITUTE
- PUBLIC BUILDINGS
- PRIVATE COMPANIES
- HOSPITALS
- EVENTS
- CUSTOMS AND BORDERS

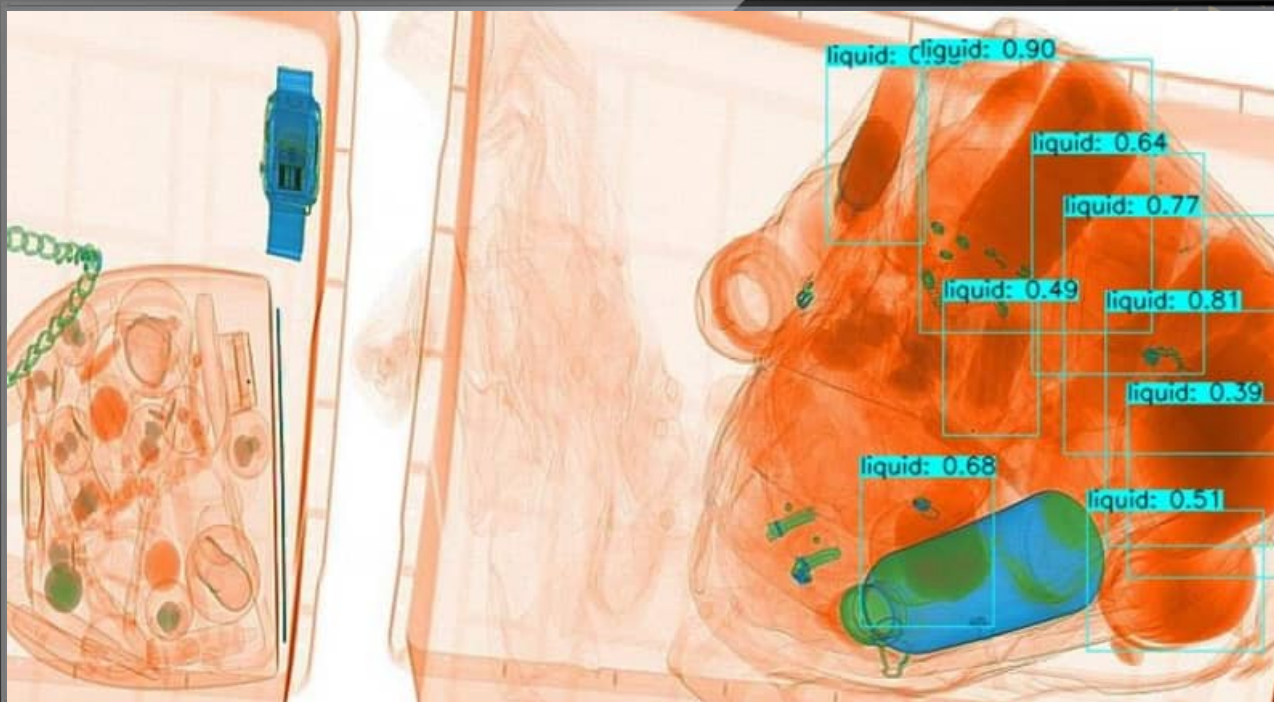


OUR CUSTOMERS



CERTIFICATES





VMI Security, staying aligned with market trends and supported by a robust research and development department, introduces **Arpia**, an advanced Artificial Intelligence technology. Using supervised learning techniques, including deep learning, our AI can automatically identify potential threats at large events. This software has the potential to revolutionize the inspection process, making it faster, more accurate, and less intrusive.

- AI can detect potentially dangerous or prohibited objects in real time.
- It detects prohibited objects that are difficult to identify by human analysis.
- It can identify several objects (of varying sizes and positions) at the same time.
- Reduces waiting time and the need for manual inspection when opening luggage.

*The optional features and accessories will not be provided unless they are clearly specified in the scope of the requested requirements.

ARTIFICIAL INTELLIGENCE IN LUGGAGE

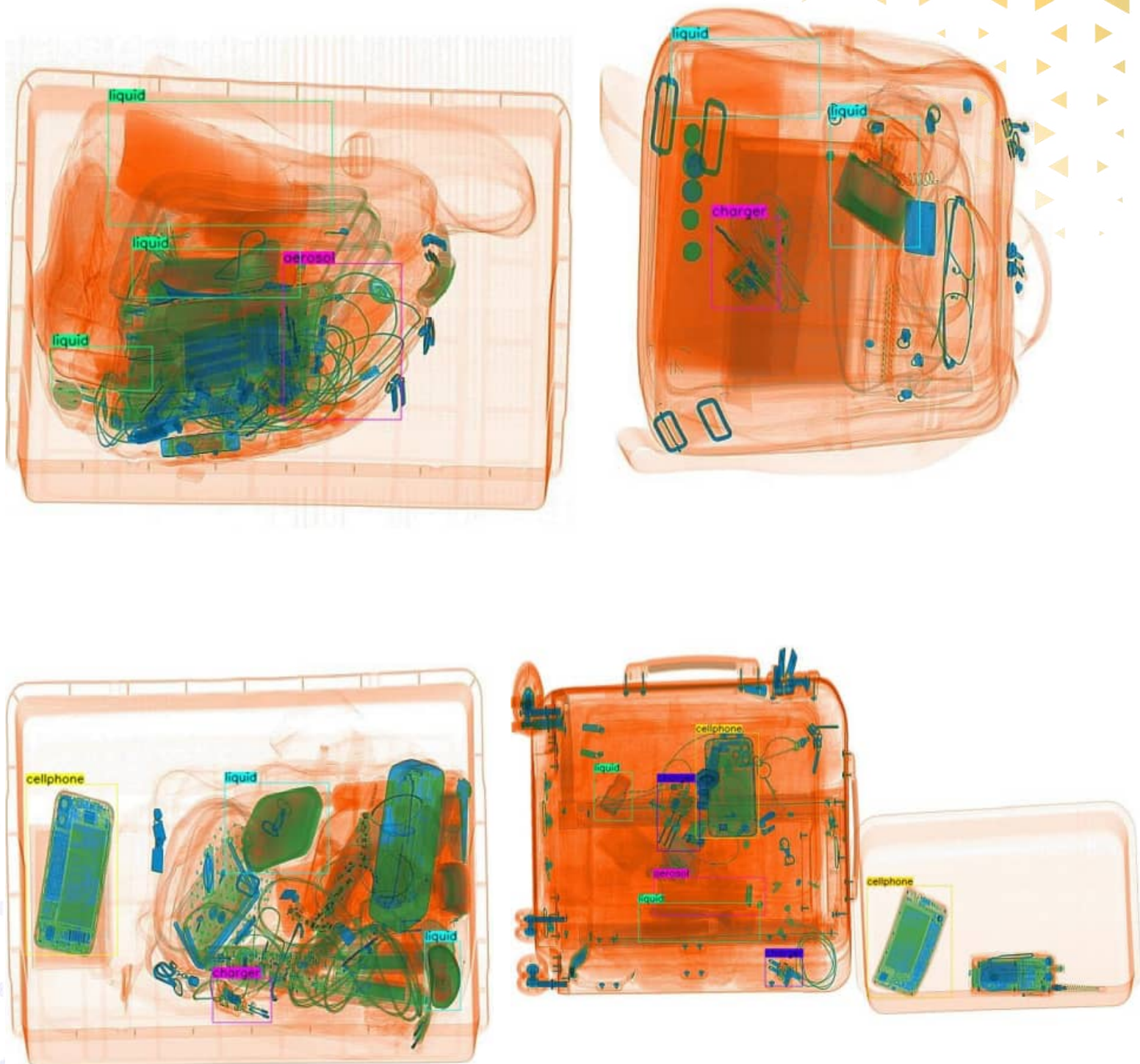


AUTOMATICALLY IDENTIFIED OBJECTS

- Liquids
- Aerosols
- Cell Phones
- Notebooks
- Chargers
- Hard Disks
- Firearms
- Knives
- Lithium Batteries
- Keys
- Lighters
- Coins
- Flash-drives
- Scissors

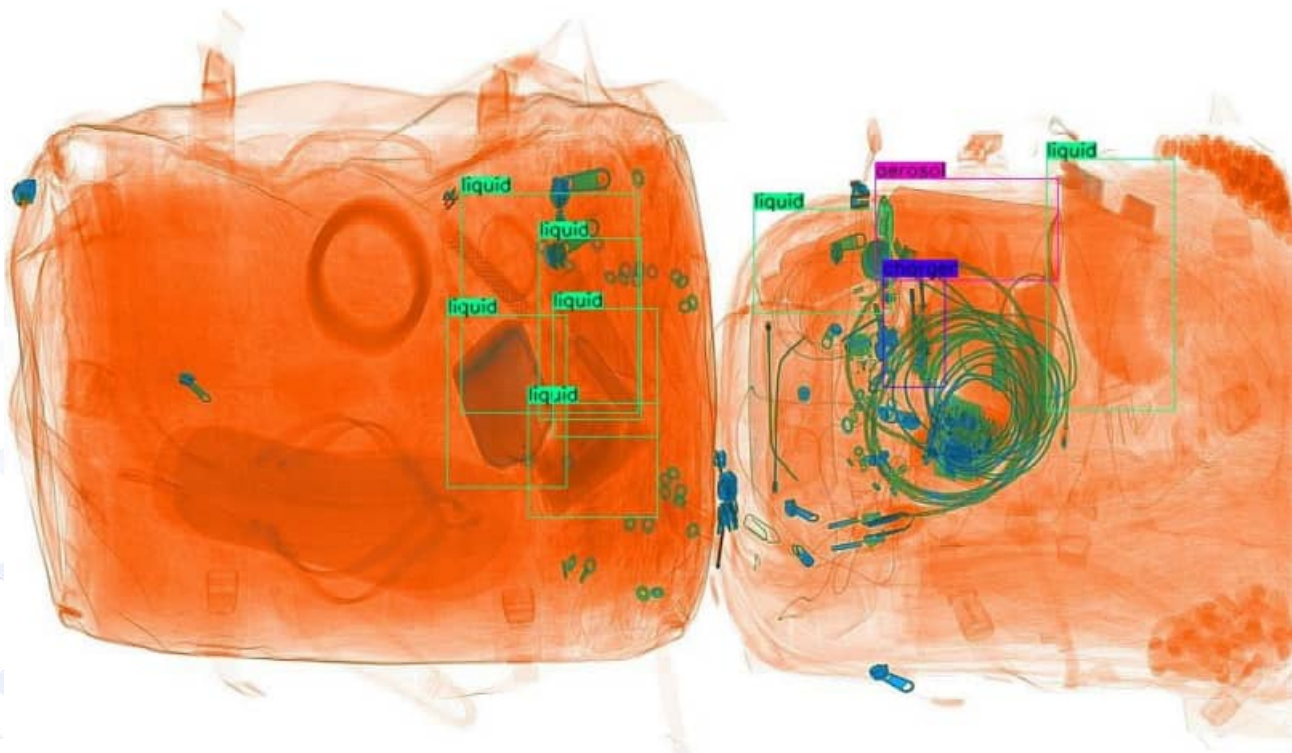
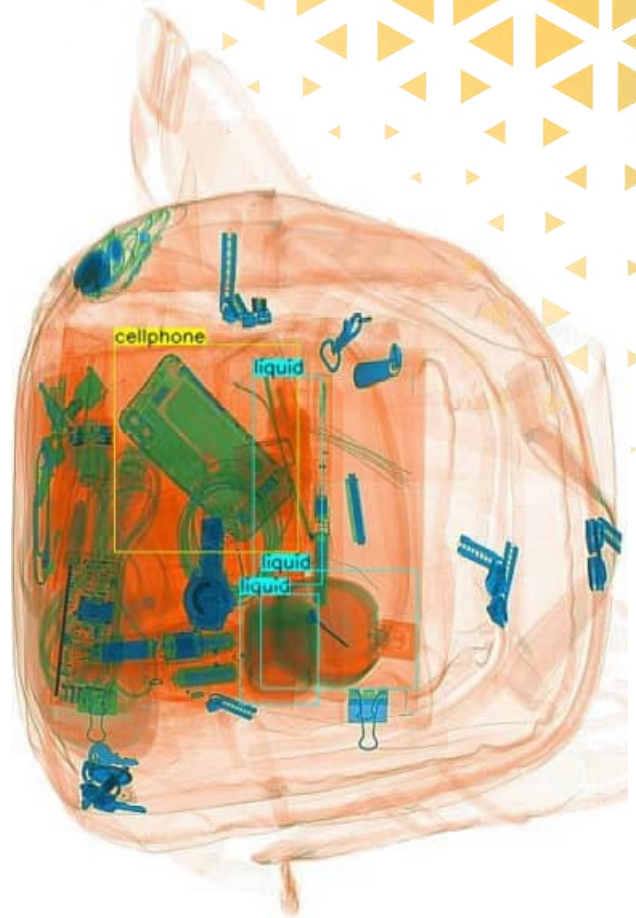
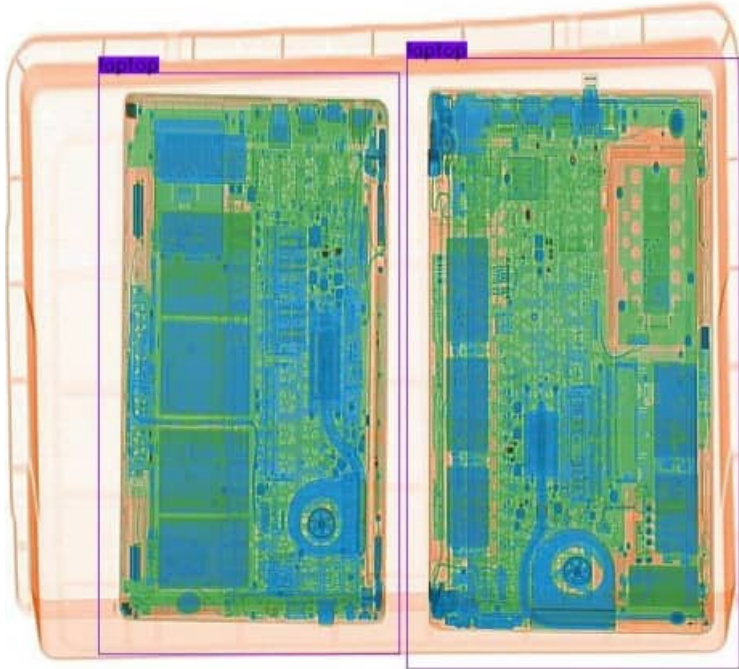
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INFERENCE EXAMPLES



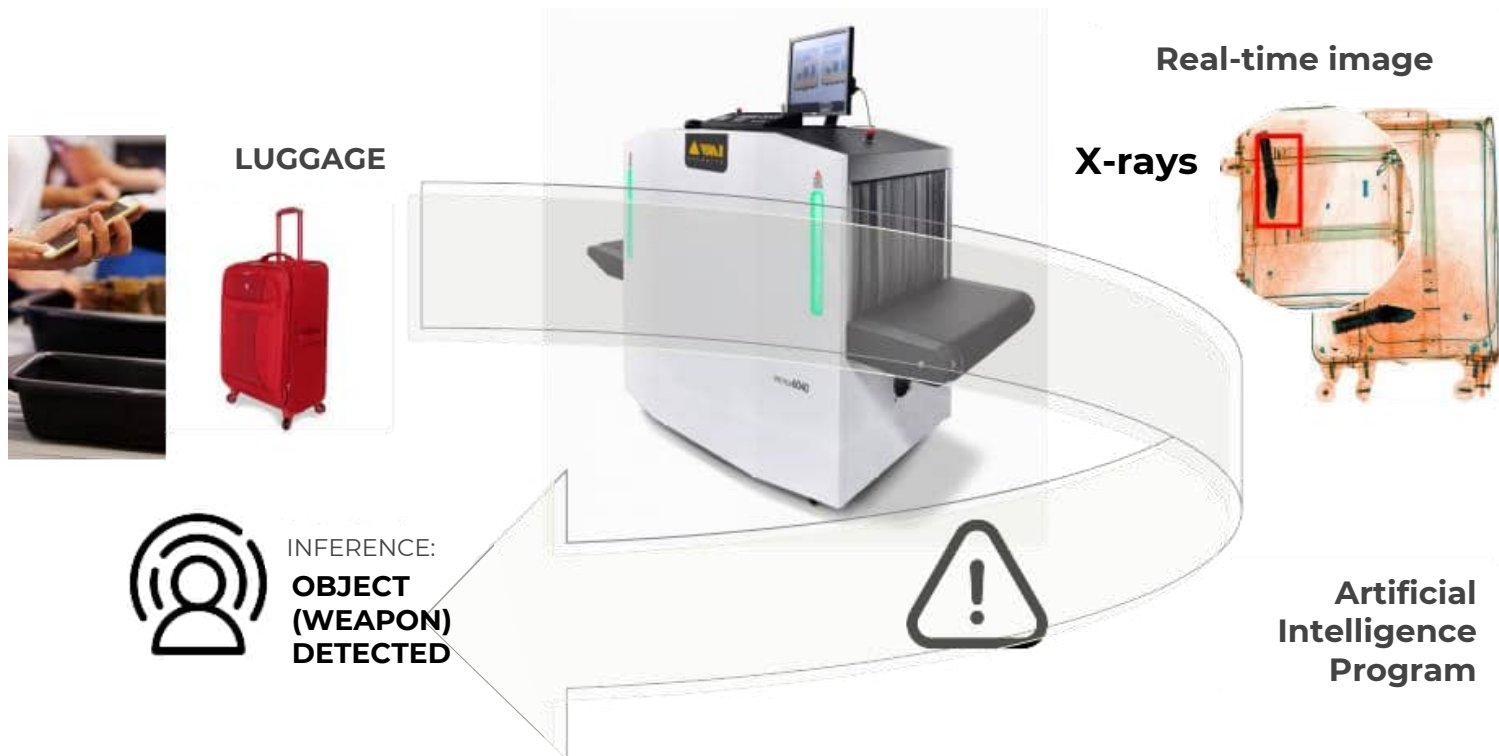
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INFERENCE EXAMPLES



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LUGGAGE INFERENCE



LIMITATIONS

- The AI produced does not yet allow the X-ray machine to operate autonomously
- AI produces an inference with a probability (it is a statistical model)
- The AI does not "learn" automatically by reinforcement (with feedback from the operator). However, the images generated are captured on clients for use in future training (this procedure is still manual).
- Adding new objects for learning requires the process of capturing images, annotating data and re-training the model (a new model must be produced).

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