



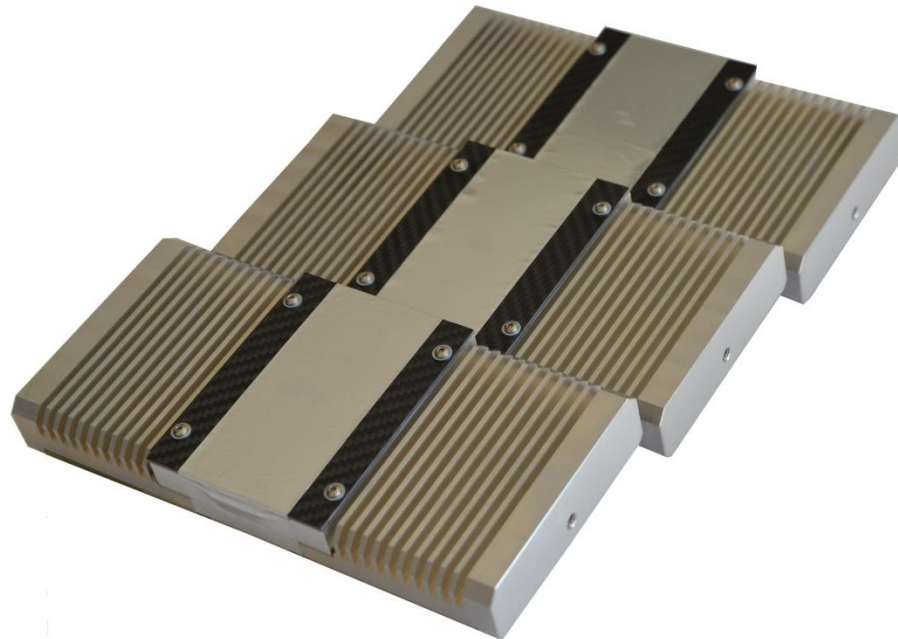
# X-ray spectrometric detectors for sorting applications

29 June 2015

Crowne Plaza Brussels – Le Palace,  
Rue Gineste 3, Brussels

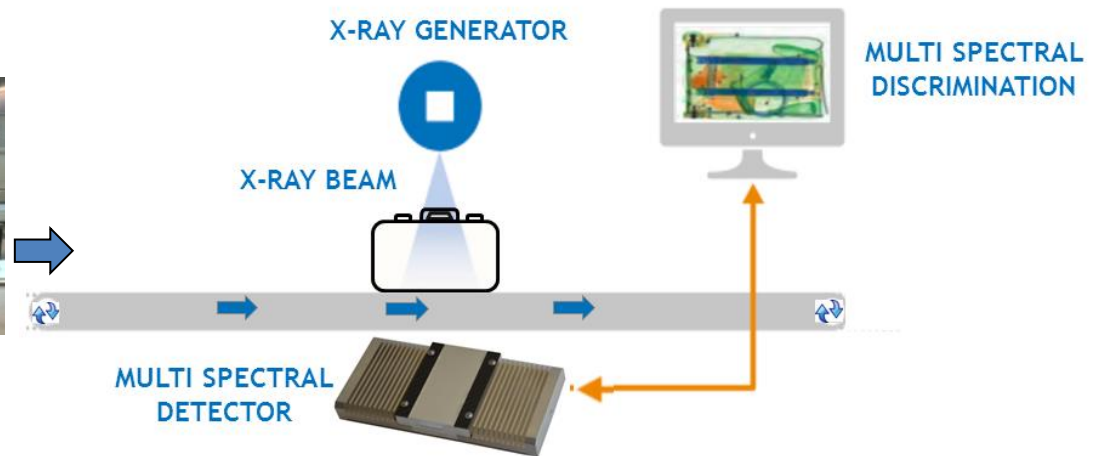
# Disruptive x-ray spectrometric detectors

## How to open new sorting capabilities and valorization for waste management with XRT

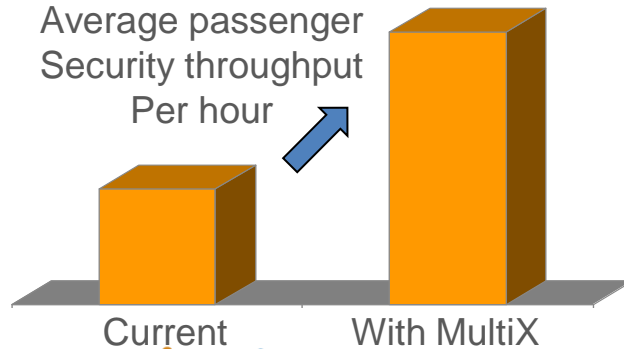


# Multi-energy x-ray spectrometric detectors

- MultiX, innovative European company, is considerably improving the ability of X-ray scanners to identify/discriminate materials in real time
- Detectors are integrated by our OEM customers in x-ray scanners for airport security, recycling, petroleum production, food safety and many other Non-Destructive Testing(NDT) applications.

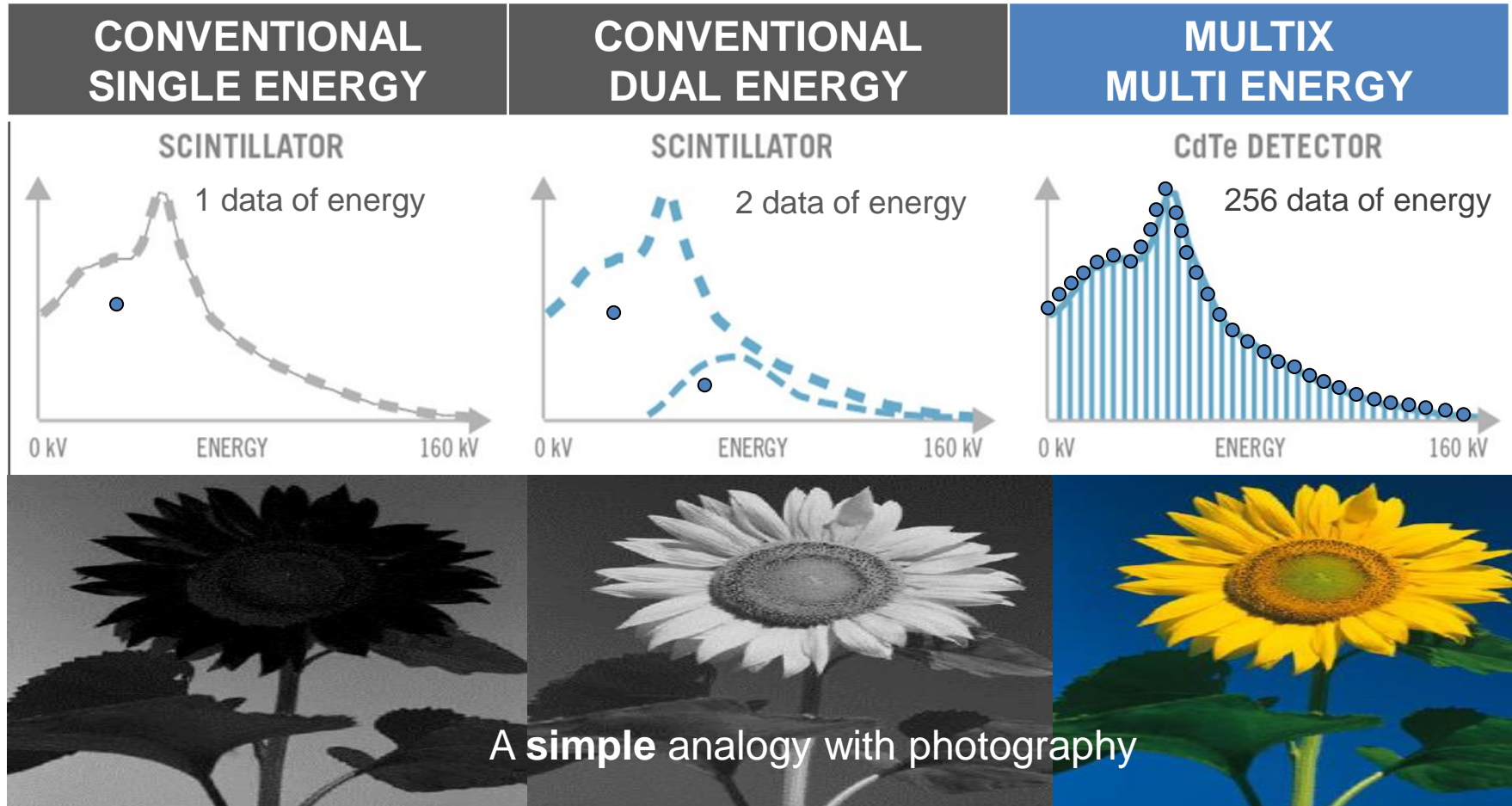


Average passenger  
Security throughput  
Per hour



**MultiX spectrometric  
technology reduces the false  
alarm rate by a factor of 3**

# Multi-energy vs. Conventional detectors



Multi energy demonstrates a much better capability to segregate materials with close atomic composition

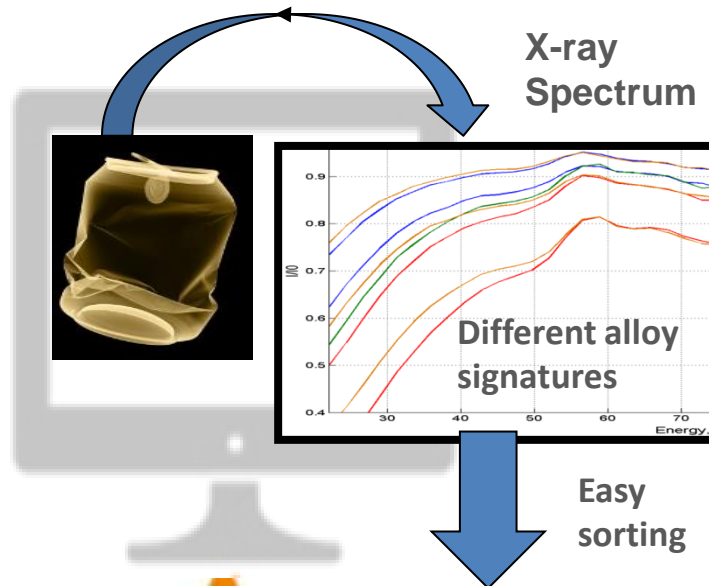
# XRT scanner for aluminum alloys sorting: increase your yields with ME100

ME100 discriminates alloys with close atomic composition



X-RAY GENERATOR

X-RAY BEAM



Easy sorting

Al + % Mg,Cu,Zn...

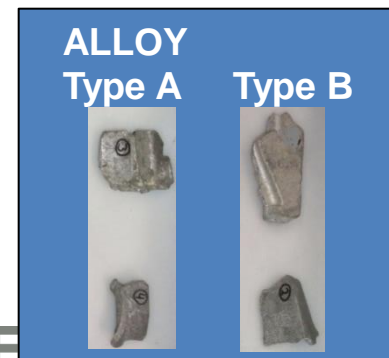
HOUSEHOLD WASTE RECYCLING WITH MIXED ALLOYS



MULTIX<sup>®</sup>  
Xray Spectrometric Imaging

ME100

UP TO 2 METERS OF DETECTION LINE IN REAL TIME



SPRE Resource and Energy Efficiency

MULTIX<sup>®</sup>  
Xray Spectrometric Imaging

# Where to apply x-ray spectrometric detector?

- ❑ MATERIAL DISCRIMINATIONS FOR SOLIDS AND LIQUIDS IN SENSITIVE INFRASTRUCTURES
- ❑ FOREIGN BODY IDENTIFICATION BETWEEN PRODUCTS AND CONTAMINANTS OF VARIOUS DENSITIES MIXED INTO INHOMOGENEOUS MATERIAL (SUCH AS GRAINS, TABLETS, FLUIDS WITH DIFFERENT VISCOSITY, POWDERS...)
- ❑ QUANTIFICATION OF RAW MATERIALS AS THE MULTI ENERGY BRINGS ADDITIONAL DATA COMPARE TO DUAL ENERGY (256 DATA COMPARED TO 2 DATA), AS EXAMPLE PERCENTAGE OF FAT, OIL, WATER, ALLOYS ETC...
- ❑ ANYWHERE IN THE INDUSTRY AS SOON AS THE X-RAY SPECTRAL SIGNATURE IS DIFFERENT AMONG MATERIALS TO BE SCREENED OUT.
- ❑ ME100 SYSTEM IS EASILY ADAPTABLE TO MANY APPLICATIONS TO PERFORM X-RAY SPECTROMETRIC ANALYSIS IN TRANSMISSION (XRT).



Petroleum



Pharmacy



Security



Waste  
Management



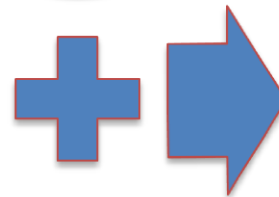
Mining

# BENEFITS FOR CUSTOMERS

- ❑ DISRUPTIVE X-RAY TRANSMISSION (XRT) DETECTOR ENABLING REAL TIME AND POWERFUL DISCRIMINATION IN NDT APPLICATIONS
- ❑ OPEN NEW AREA OF APPLICATIONS WHERE CURRENT TECHNOLOGIES ARE LIMITED
- ❑ BETTER YIELD SORTING AND FASTER ROI FOR YOUR PRODUCTION

MultiX integrated solution is precisely measuring the energy of each incidental x-ray photon to quickly deliver the signature of each specific material

MultiX detectors system allows OEMs to reduce significantly the false alarm rate and offers a powerful flexible platform easily adaptable to your applications.



**MULTIX**<sup>®</sup>  
Xray Spectrometric Imaging

Get more from x-ray



**MULTIX**<sup>®</sup>

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