STEINERT'S INTELLIGENT DIGITAL SOLUTIONS

Six solutions for the digital future
of resource recovery from waste

STEINERT

MAGNETIC + SENSOR SORTING SOLUTIONS

STEINERT'S INTELLIGENT DIGITAL SOLUTIONS

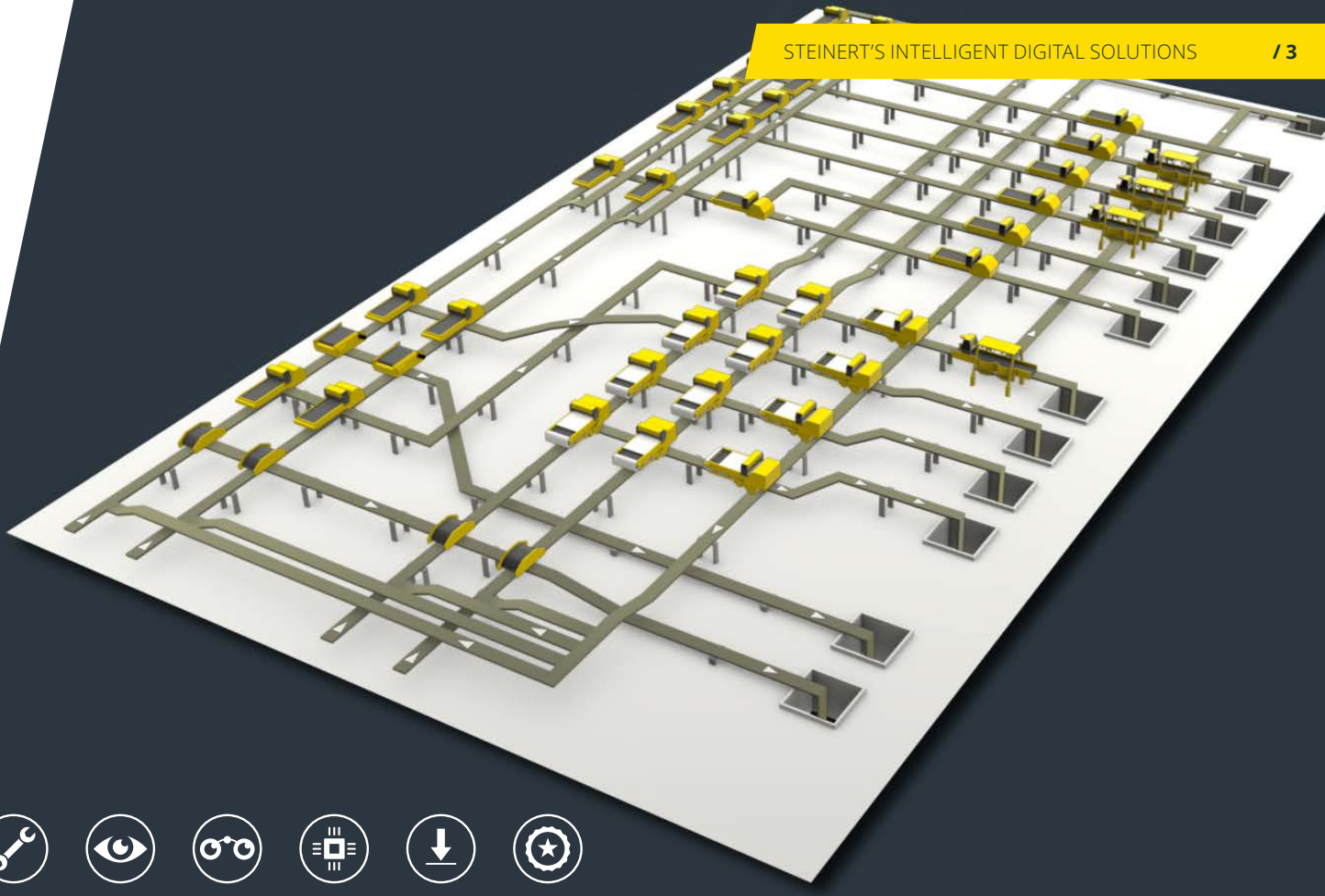
The digital future of resource recovery

The requirements of facilities, machines and people are growing all the time. There is a call for larger, more complex sorting facilities as a result of greater financial pressure, stricter requirements based on the legally required recycling rates and the materials in material flows comprising multiple layers.

Facilities which are well utilised, easy to monitor and quick to maintain are absolutely essential for smooth-running and economically-viable sorting processes.

STEINERT provides networked solutions for simplified commissioning, monitoring and control of your facilities. We believe artificial intelligence will play a major role in the future of resource recovery. A future that can offer unimagined opportunities in the fight against the scarcity of resources based on huge amounts of digitally obtained data and the mechanical evaluation of this data.

Discover our vision for this digital future and the solutions we can put into place today with your help.



INTELLIGENT PLANT.COMMISSIONING

Rapid commissioning of large facilities

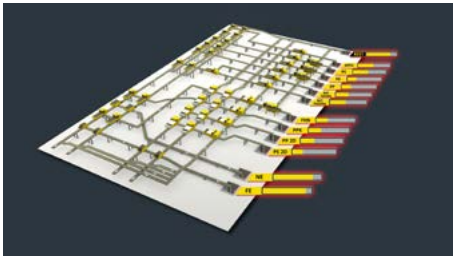
Intelligent Plant.Commissioning lets you get your entire plant up and running in the shortest time possible. All the machines in the plant are equipped with STEINERT's central spectral database. Once you have calibrated one of the machines in your plant, with just one click all the other machines will adopt the set parameters.

// Advantages

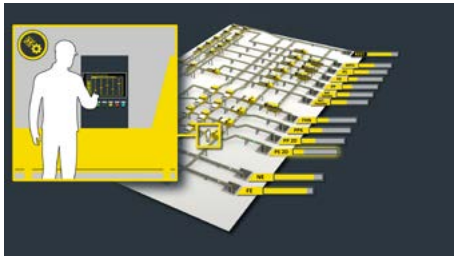
+ Shorter commissioning times
+ Optimised staff management
+ More robust when faced with environmental factors

// Benefits

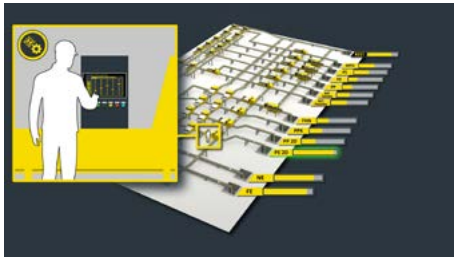
+ Allows the commissioning of plants with 50+ NIR sorters
+ Significant reduction in cost
+ Optimum performance and comparability of machines



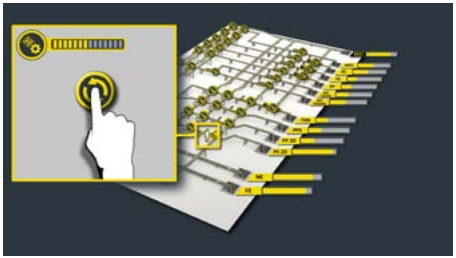
01 *// Poor sorting result and high proportion of residual material*



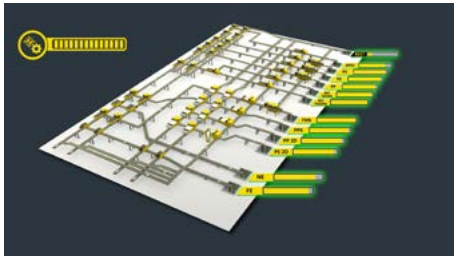
02 *// Machine parameters only have to be set once*



03 *// Increased output from one machine*



04 *// Synchronisation of all machines*



05 *// Increased output from all machines in the facility*

INTELLIGENT CONDITION.MONITORING

Higher facility performance

With Intelligent Condition.Monitoring you can constantly monitor the status of the overall plant from a central location. This means that you can be alerted quickly to potential incidents or unusual circumstances within the facility and take the most appropriate action.

// Advantages

+ Faster response times when error/fault messages are issued and/or limit values are exceeded
+ Improved uptime/availability

// Benefits

+ Improvement in overall plant performance
+ Improved performance reliability of the entire plant
+ Shorter downtimes

INTELLIGENT REMOTE.MONITORING

Shorter response times to error and fault messages

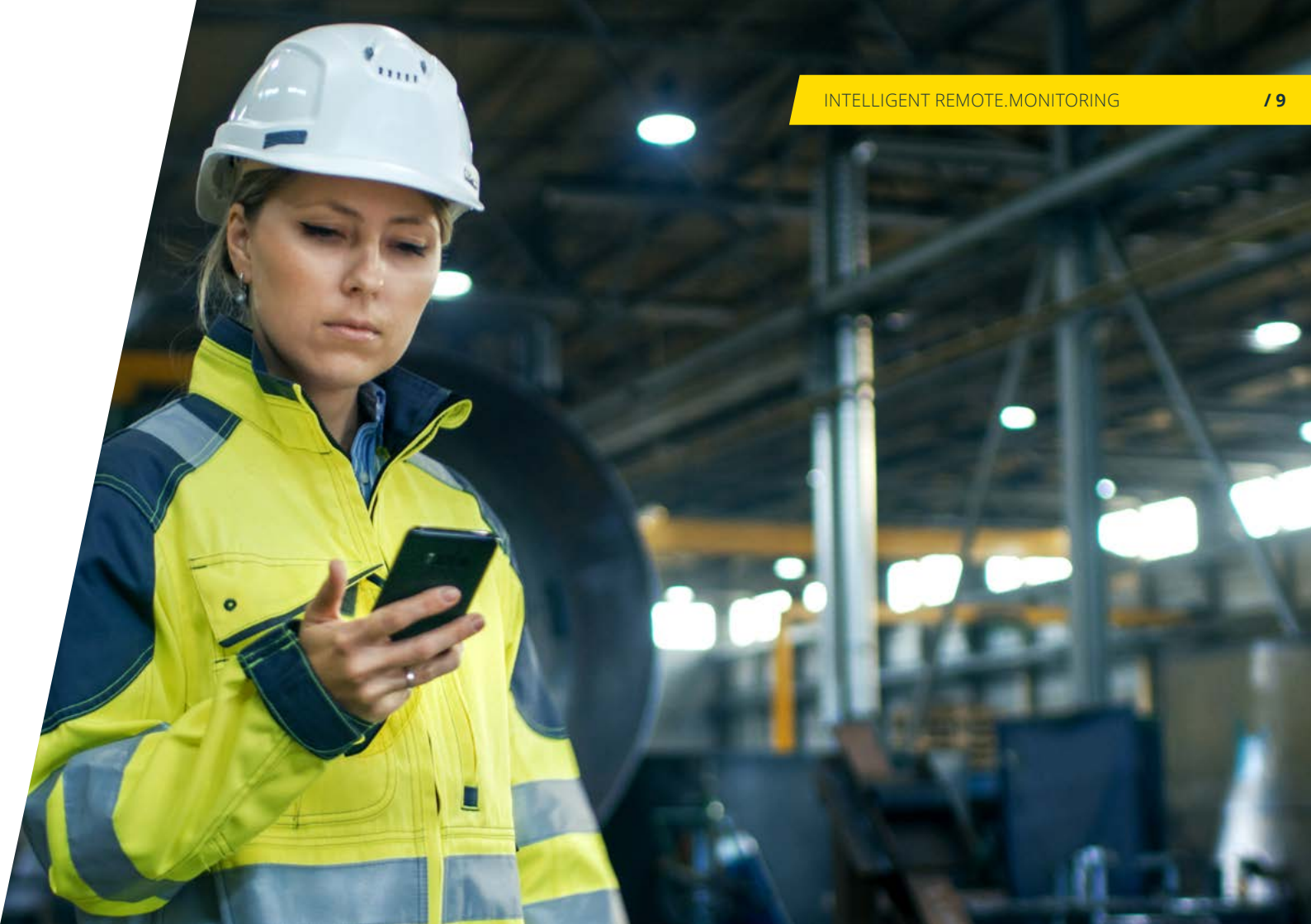
With Intelligent Remote.Monitoring you can monitor the plant at all times and from any location. Its open interface allows seamless integration into your existing remote setup.

// Advantages

+ Faster response times when error/fault messages are issued and/or limit values are exceeded
+ Improved uptime/availability
+ Greater staff mobility
+ Service experts can gain access and act at speed

// Benefits

+ Improvement in overall plant performance
+ Improved performance reliability of the entire plant
+ Shorter downtimes



INTELLIGENT OBJECT.IDENTIFIER

AI-supported sorting program to sort materials that could not previously be separated

Aided by artificial intelligence, Intelligent Object.Identifier enables you to reliably sort even materials that could not previously be separated. The sensor combination of colour and NIR camera can resolve even the most complicated sorting tasks.

// Advantages

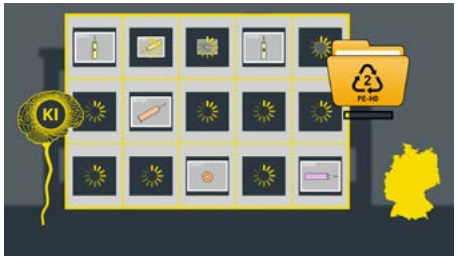
+ Faster adaptation to changes in material compositions and requirements
+ AI learns visual differences more/better/more stably
+ AI is more objective and works even when circumstances change

// Benefits

+ Specific individual objects can be sorted
+ Greater sorting performance and reliability
+ Higher product quality
+ Future-proof technology

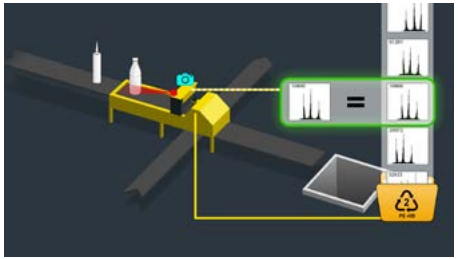
01 *// AI training phase using NIR camera*

02 *// AI training phase using colour camera*

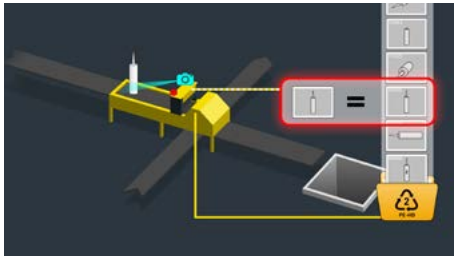


03 *// AI independently completes the capture of data*

04 *// Database update*



05 *// NIR camera detects the material class*



06 *// Impurities are separated out*

INTELLIGENT REMOTE.UPDATE

Remote installation of software updates

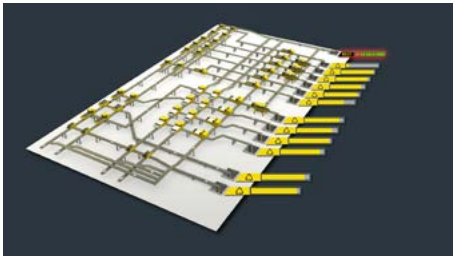
With Intelligent Remote.Update you can install new or updated databases, sorting programs or functions on individual machines or the entire plant. It allows you to adapt the software at a later date and implement improvements or entirely new applications in existing plants.

// Advantages

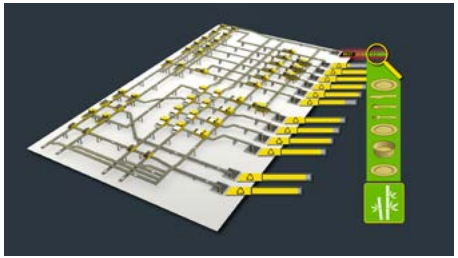
+ Ongoing developments and improvements from STEINERT development centres
+ No staff needed on the ground
+ Short downtimes

// Benefits

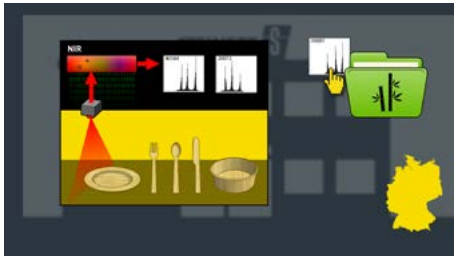
+ Improved ability to respond to changes in material compositions and requirements
+ Fewer staff needed



01 *// Increased output in residual material container*

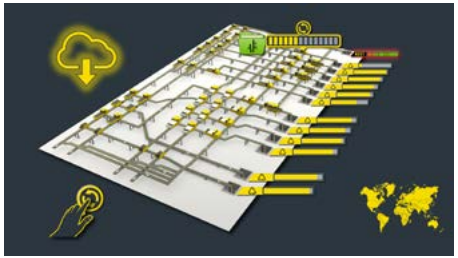


02 *// New material class can be detected*

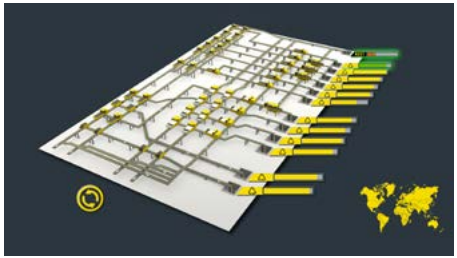


03 *// AI-supported training of sorting programs*

04 *// AI independently completes the capture of data*



05 *// Remote installation of new sorting program*



06 *// Increased output of new material class*

INTELLIGENT QUALITY.CONTROL

Robot-based quality check

With Intelligent Quality.Control, a robot performs the final quality check and quality assessment of the material flow. The modified physical sorting principle means that even those materials which cannot be sorted by other machines can be separated here.

// Advantages

+ Fewer staff needed
+ Automated quality assessment
+ Precise assessment of the end product quality in the container
+ More flexible and more accurate pricing
+ Response to legal or customer requirements

// Benefits

+ Better quality, better price
+ Creation of an interface for digital processing of quality data

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