

IMAGINE A WORLD WHERE **ZERO WASTE** IS PRODUCED.

ZERO DEFECTS WASTE

AMBITIOUS, BUT **NOT IMPOSSIBLE.**



THANKS FOR STOPPING BY!

WWW.ZDZW-PROJECT.EU



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NON-DESTRUCTIVE INSPECTION SERVICES FOR DIGITALLY ENHANCED ZERO WASTE MANUFACTURING



OBJECTIVE: TO DEVELOP DIGITAL NON-DESTRUCTIVE INSPECTION SERVICES AS A SET OF STRATEGIC TECHNOLOGIES TO IMPROVE PRODUCTION EFFICIENCY, ZERO-DEFECT AND SUSTAINABLE MANUFACTURING OF EUROPEAN INDUSTRIES.

To pursue the main goal of **reducing defects and the generated waste** in manufacturing processes, ZDZW addresses defect minimisation and waste reduction in three key areas that cover the **entire manufacturing process and product lifecycle.**



MONITORING AND CONTROL
IMPROVEMENT FOR PROCESS
QUALITY ASSURANCE

DIGITALLY ENHANCED REWORK &
REPAIR PROCEDURES FOR PART
RECOVERY AND SCRAP REDUCTION.

KEY



AREAS



SUSTAINABILITY EVALUATION
TO ENSURE THE EFFICIENT
USE OF MATERIALS

6 INDUSTRIAL

MONITORING, CONTROL AND REWORK AFFECTED PROCESSES



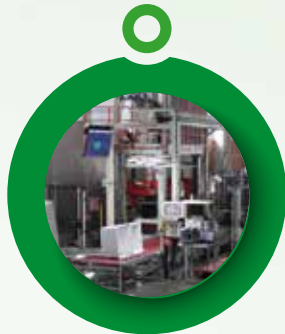
PLASTIC PARTS MASS PRODUCTION QUALITY ASSURANCE



AIM: TO AVOID EXCESSIVE OR UNNECESSARY SCRAP PRODUCTION.

HOW: USING THE INSPECTION SERVICES OFFERED BY ZDZW VISUAL INSPECTION SUITE - 100% PRODUCED PARTS INSPECTED.

THERMOPLASTICS FORMING EXCELLENCE



AIM: TO ACHIEVE 100% CONTROL OF THE PRODUCTION LINE OF THE REFRIGERATOR INNER BODY.

HOW: INTEGRATING ZDZW THERMAL INSPECTION SUITE THAT BRING TOGETHER INNOVATIVE AI-ENHANCED THERMAL IMAGING AND PROCESSING FEATURES.

WIND TURBINE PRODUCTION ENHANCEMENT



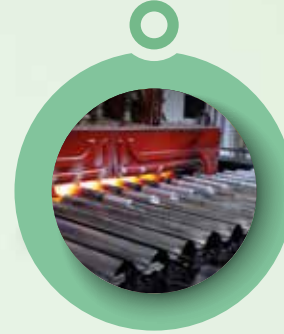
AIM: TO REDUCE DEFECTS OF WELDING AND PAINTING TO MINIMISE REPAIR AND REMANUFACTURING COST OF DEFECTIVE PARTS.

HOW: USING ZDZW INTEGRITY AND THERMAL INSPECTION SUITES TO PROVIDE QUALITY DATA AND EARLY DEFECT IDENTIFICATION.

ZDZW will demonstrate its zero-defect (ZD) and zero-waste (ZW) approach in 6 Pilots involving production processes with an important waste reduction potential (injection moulding, thermoforming, welding and painting, induction hardening, lithography and packaging).

SCENARIOS

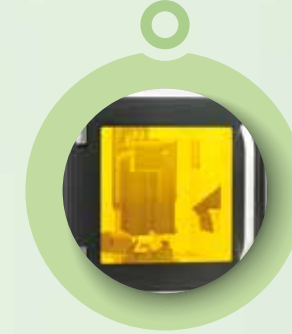
DURABLE FASTENING SOLUTIONS PRODUCTION



AIM: TO PROVIDE PRODUCTS WITH IMPROVED MECHANICAL PROPERTIES:

HOW: WITH ZDZW INTEGRITY INSPECTION SOLUTION TO EXCEL QUALITY REQUIREMENTS AND REDUCING REQUIRED DESTRUCTIVE TESTS

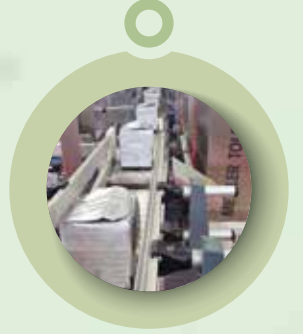
LITHOGRAPHY-BASED EHEALTH PARTS PRODUCTION



AIM: TO ACHIEVE HIGH VOLUME PRODUCTION OF AIR CERAMIC ANTENNA MODULE WITH FILL PROCESS CONTROL AND ZERO-DEFECT TOLERANCE

HOW: INTRODUCING IN-LINE INSPECTION IN THE 3D PRINTING MACHINES IN THE ZDZW INTEGRITY INSPECTION SUITE

COFFEE CAPSULE AV AI-BASED QUALITY CONTROL



AIM: TO INCREASE THE CAPACITY TO CARRY OUT QUALITY CONTROL THAT INTERCEPTS CAPSULE DEFECTS

HOW: USING ZDZW VISION INSPECTION SUITE TO IMPLEMENT REAL-TIME CONTROL OF THE CAPSULE FORMING PROCESS & MONITORING THE QUALITY OF INDIVIDUAL COMPONENTS



INSPECTION-AS-A-SERVICE

Introducing new business models for inspection systems, such as subscription and pay-per-use models.



INDUSTRY 4.0 FACTORY SOLUTIONS

For manufacturers, inspection system providers, and new developers.



SUSTAINABILITY ASSESSMENTS

To identify and most efficient routes leading to waste reduction in selected production processes against a benchmark.

EXPECTED

RESULTS

INTEROPERABLE AND INTERLINKED SERVICES AND SOLUTIONS

Integrity, Visual and Thermal Inspection Solutions will make use of Innovative AI techniques for zero-defect manufacturing.

CONSULTANCY SERVICES INCLUDING SKILLS DEVELOPMENT AND TRAINING STRATEGY

Looking to maximize industrial uptake.

