CYBERSECURITY METHODOLOGY
a RESOLVD key exploitable result

DESCRIPTION

Cybersecurity threat modelling strategy that ensures security throughout system development lifecycle:

Phase 1: Requirements	Phase 3: Implementation	Phase 5: Release
Phase 2: Design	Phase 4: Verification	Phase 6: Support & Service

Where the Cybersecurity methodology fits in the RESOLVD solution, see model on page 2

USP

Combined risk assessment and threat modeling to generate a holistic set of security requirements for critical infrastructures that are best suited for additional sophisticated probabilistic formal verification methods that can provide security guarantees through mathematical and logical methods.

DEVELOPER

TARGET CUSTOMERS

DSO, automotive industry, critical infrastructure providers
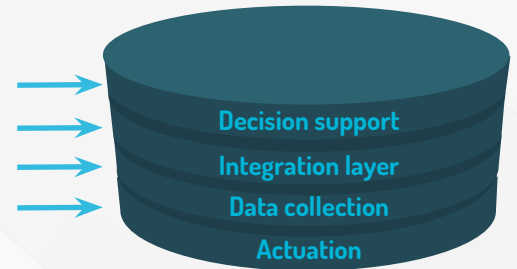
PROBLEM ADDRESSED

Damage caused by cyber–attacks causes considerable costs to critical infrastructure providers and the larger society they serve, damages the reputation and can raise critical safety threats.

VALUE PROPOSITION

The risk based cyber threat modelling tool ensures trustworthy security throughout all the development lifecycle of critical infrastructure.

EXPLOITATION AMBITION

JR is an independent research institution and has a proven track record in increasing cybersecurity using a risk-based modelling process in critical infrastructure. They plan to utilise this as a participant in further R&I in new industries and intend to further exploit this approach with the help of formal verification.

RESOLVD
Next generation LV grid management

WHY IS THIS RELEVANT TO YOU?

The RESOLVD H2020 project is a 42 month Research & Innovation project that proposes hardware and software technologies that address European DSOs challenges in accommodating an increased presence of renewables in LV grids.

With the project now coming to a close, a consortium of leading institutions and technology developers have developed the next generation solutions to meet tomorrow's challenges and these are being tested in a real-life pilot in Catalonia, Spain.

DSO CHALLENGES

Fault detection and self-healing	Low resolution grid observability	Congestion and voltage compliance
Uncontrolled islanding	Continuity of supply after fault	Power quality issues
Technical power loses	Cyber Security	Technical power loses

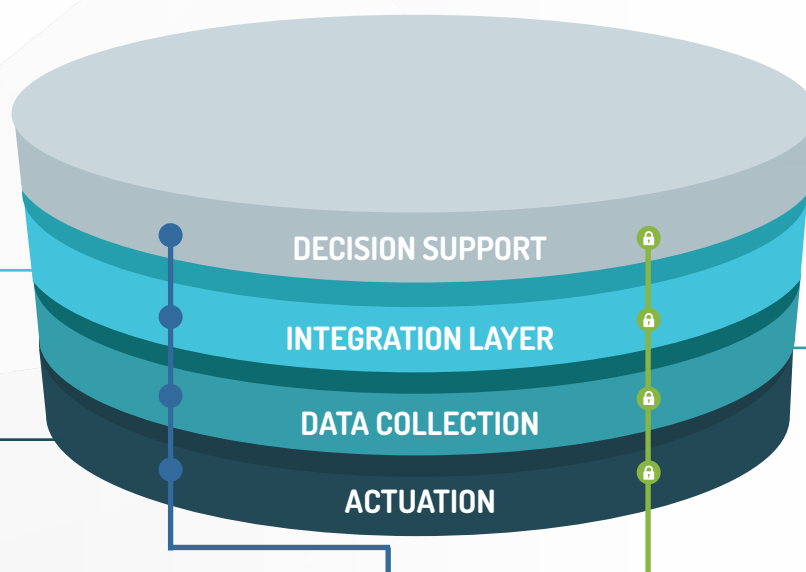## THE RESOLVD SOLUTION

INTEGRATION LAYER
Enterprise Service Bus (ESB) and Data Management Platform - Integration middleware software that facilitates interaction among various software applications and manages data exchange, analytics and visualisation.

ACTUATION
Power electronic device (PED) Integrates multiple battery types and manages their dynamic energy and power flows.

DECISION SUPPORT
Low-Voltage Distribution Decision support toolkit (LVD-DST) - A suite of web services that provides enhanced energy monitoring and scheduling capabilities.

DATA COLLECTION
Phasor measurement unit (PMU) & edge computing - A wide area monitoring solution that provides increased observability of the LV grid & has edge computing capabilities **Smart Gateway** to measure power quality in the buildings or charging areas and communicates to 3rd party.

DECISION SUPPORT

INTEGRATION LAYER

DATA COLLECTION

ACTUATION

RESOLVD BRINGS INNOVATION AND CYBER SECURITY IN THESE LAYERS

CONTACT

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