MAY 2026

AAS IS READY FOR THE EU DIGITAL PRODUCT PASSPORT

The Asset Administration Shell (AAS) gives industry a structured, interoperable, and future-proof path to Digital Product Passport (DPP) compliance – and IDTA is delivering the specifications and tools to make it real.

What is a DPP? A DPP is an EU regulatory requirement introduced under the Ecodesign for Sustainable Products Regulation (ESPR) that mandates a structured digital record of a product's characteristics across its lifecycle. It covers circularity, material composition, repairability, and more. Mandatory for batteries as of February 2027, it will progressively extend to additional product groups – by 2030, almost all industrial products are expected to be covered.

WHY AAS?

The AAS was designed to manage structured product data across organisational boundaries and integrate information from multiple systems and lifecycle phases – exactly what the DPP demands. It supports unique product identification, modular data structures, standardised APIs for data access, and granular access control - directly addressing the core technical requirements of CEN-CENELEC JTC 24, the European body developing the technical standards for the DPP system. IDTA is an active liaison partner in JTC 24, ensuring AAS and DPP evolve together.

HOW DOES IT WORK?

A company operates an AAS as the digital twin of a product. Product data lives in modular **Submodels**, one per aspect (carbon footprint, handover documentation, circularity, etc.). When a DPP is needed, the AAS application retrieves the relevant Submodels via the AAS APIs and assembles them into a JTC 24-compliant output. With Release 26-01, the AAS Specifications Part 1 (Metamodel) and Part 2 (API) will be formally updated to align with JTC 24, making this derivation standardized and verifiable.

IT ALREADY WORKS.

The Digital Battery Passport is the DPP's first live regulation (mandatory from February 2027). IDTA has already delivered **7 Submodel Template Specifications** (IDTA 02035 Series) covering every required data point, conformant with DIN DKE SPEC 99100.
A complete implementation guideline, co-developed with Catena-X, is **available today**.
This is a blueprint for every future ESPR product group.

VALUE BEYOND COMPLIANCE

One infrastructure, many uses

DPP data in AAS is immediately reusable for use cases like master data, maintenance, re-manufacturing, handover documentation, and many more.

Data space ready

AAS is the data format for Catena-X, Factory-X and other data spaces. Data spaces enable economic operators to fetch data from suppliers to be able to compose their DPP as required by regulation.

Open and vendor-neutral

Built on open IEC standards, with commercial and open-source implementations available via the IDTA Solution Hub.

WHAT IDTA IS DELIVERING

DELIVERABLE	WHAT IT COVERS	WHEN
Digital Battery Passport Submodel Template Series (IDTA 02035)	7 Submodel Templates covering all EU Battery Regulation data points, conformant with DIN DKE SPEC 99100, co-developed with Catena-X	**Available now**
Digital Battery Passport Implementation Guideline	Step-by-step guidance for Digital Battery Passport using AAS, co-developed with Catena-X.	**Available now**
Submodel Template "DPP – Part 1 Metadata" (IDTA 02099-1)	Defines data points required for every DPP: passport ID, product identifier, granularity, status, economic operator ID, and content specification references. Aligned to prEN 18223:2025.	**Available now**
DPP Annexes – Part 1 & Part 2 (public)	DPP-specific annexes to AAS Specifications Part 1 and Part 2. Currently under IDTA member review; Review version to be made publicly available.	Start of June 2026
White Paper: How to Achieve a DPP System Using AAS	Practical guidance on DPP architecture, AAS API patterns, metamodel mappings, and end-to-end DPP derivation from an AAS.	June 2026
AAS Specification Release 26-01	Updated AAS Specifications Part 1 (Metamodel) and Part 2 (API) with direct DPP-related changes and formal DPP Annexes, fully aligned with CEN-CENELEC JTC 24 standards (EN 18223 & EN 18222).	End June – Mid July 2026
AAS Specification Release 26-02 (Part 4 Security)	DPP security-related changes and a DPP Security Annex for Part 4, aligned with JTC 24 security standards. Timing follows JTC 24 security standards publication.	Follows JTC 24 Security

DELIVERY TIMELINE

Available Now
Digital Battery Passport
Submodel Template series & guideline | available today

Available Now
DPP – Part 1 Metadata Submodel Template
IDTA 02099-1

June 2026
White Paper
"How to achieve a DPP system using AAS"

End June – Mid July 2026
Release 26-01
AAS Part 1 & 2
DPP changes

Follows JTC 24
Release 26-02
Part 4 Security
DPP alignment

GET INVOLVED

All IDTA Specifications and Submodel Templates are available at **industrialdigitaltwin.org**.
Join the IDTA working groups to contribute to shaping the standards – and ensure your implementation path is ready when regulation comes into force.