IDTA 02068
Provision of Company Data

Version 1.0

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SPECIFICATION

Submodel Template of the
Asset Administration Shell

IDTA 02068

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> Industrial Digital Twin Association
> Lyoner Strasse 18
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Chapter 1. General

1.1. About this document

This document is a part of a specification series. Each part specifies the contents of a Submodel template for the Asset Administration Shell (AAS). The AAS is described in [1], [2], [3] and [6]. First exemplary Submodel contents were described in [4], while the actual format of this document was derived by the "Administration Shell in Practice" [5]. The format aims to be very concise, giving only minimal necessary information for applying a Submodel template, while leaving deeper descriptions and specification of concepts, structures and mapping to the respective documents [1] to [6].

The target group of the specification are developers and editors of technical documentation and manufacturer information, which are describing assets in smart manufacturing by means of the Asset Administration Shell (AAS) and therefore need to create a Submodel instance with a hierarchy of SubmodelElements. This document especially details on the question, which SubmodelElements with which semantic identification shall be used for this purpose.

1.2. Scope of the Submodel Template

Companies are required to collect and manage data from their suppliers and, in turn, provide relevant information to their customers when acting as suppliers. This data must be maintained as part of the supplier qualification process.

This Submodel aims to provide an automated and standardized way to exchange the most relevant and most frequently requested data about companies. It is out of scope for the Submodel to provide all information required by detailed assessment processes, such as information highly specific to certain industries.

The Submodel covers the following subject areas:

- Basic information: company name, logo, description and industry.
- Identifiers: Tax identification numbers and other legal or regulatory identifiers.
- Business figures: Financial data, employee count, other annual key metrics.
- Payment Details: Bank account information.
- Certificates and Declarations: Relevant certifications for the company’s industry, and documentation on company governance and compliance with laws.
- Risk management: Policies in place to assure security and business continuity.
- IT systems: Information on the IT systems and tools in use at the company and options for digital data exchange with external parties.

Information which can be provided by other AAS Submodels, such as address data, company structure or production capabilities, is not covered.

1.3. Relevant standards for the Submodel template

1.3.1. Meta model

This document targets meta model version V3.0.2 and application programming interfaces V3.0.4, see [6] and [7].

1.3.2. AAS Submodels

The Company Data Submodel leverages existing AAS Submodels to reduce redundancy and improve data quality. While these supplemental Submodels are not required, they can be linked within the Company Data Submodel through reference elements.

The Submodel is designed to be used in conjunction with the following Submodels:

- IDTA 02002-1-0 Submodel for Contact Information: For providing addresses of company locations and contact details for various departments.
- IDTA 02004-1-2 Handover Documentation or similar Submodels: For providing certificates, code of conduct, and other company-related documents. As Handover Documentation does not provide sufficient options for describing certificates, an updated version or a more fitting Submodel should be used when available.
- IDTA 02007-1-0 Nameplate for Software in Manufacturing: For providing information on software systems such as email system and ERP system.
- IDTA 02011-1-1 Hierarchical Structures enabling Bills of Material: For modelling subsidiaries, sales offices, other locations or company structures.
- Capabilities Description for Industrial Appliances (unreleased): For detailing the company's production and development capabilities.
- Company Carbon Footprint (unreleased): For offering detailed information on the company's sustainability reporting.

1.3.3. Concept repositories

So called property dictionaries are used to identify information elements (see Terms and Definitions of [6]). Such property dictionaries include:

- ECLASS, see: https://www.eclasscontent.com/
- IEC CDD, see: https://cdd.iec.ch/cdd/iec61987/iec61987.nsf and https://cdd.iec.ch/cdd/iec62683/cdddev.nsf

In this document, properties are aimed to be described by ECLASS.

1.4. Use cases, requirements and design decisions

1.4.1. Entities of companies with many locations and suborganisation

The Submodel template specified in this document provides key information necessary for detailing a company and its direct information. However, a company comprises several entities or assets. The modelling of all the entities and the necessary information is beyond the scope of this Submodel. Figure 1 demonstrates the modelling of entities in a hierarchical form.

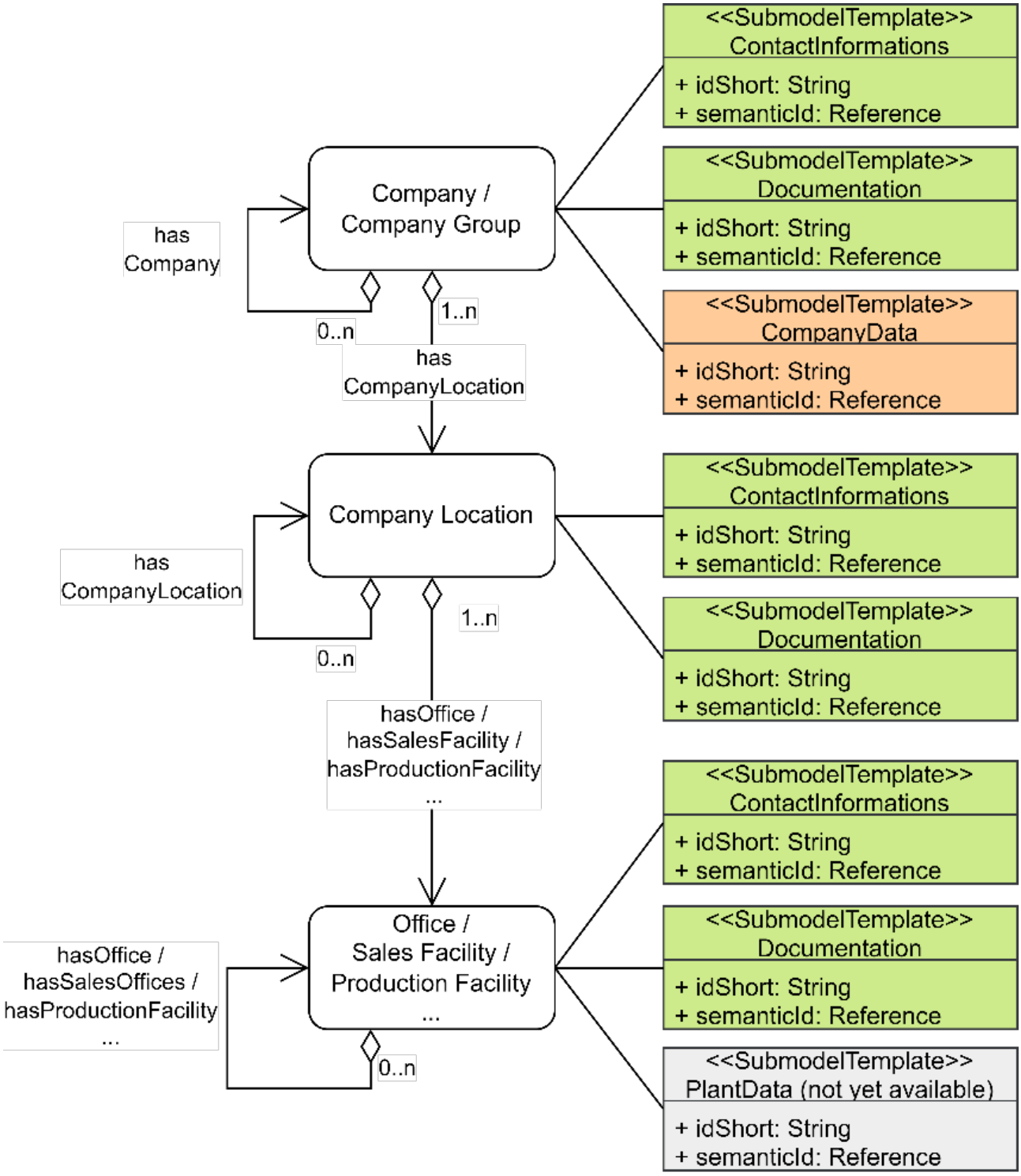

Figure 1. Company and corresponding entities

This allows the division and classification of information based on the to be modelled entity. For the entities, several different Submodels can be used to model the information corresponding to the classification of the information. Additional entities can be used, extending the provided entity model, depending on the to-be fulfilled use-case.

1.4.2. UseCase 1: Provision of Data for supplier qualification

When a company aims to qualify as a supplier for a client, it must initially provide a comprehensive set of information. This typically includes, but is not limited to, contact details, industry sectors, clientele, and compliance-related topics. Traditionally, this information is solicited through forms or online portals, requiring manual input by an employee. These data fields often overlap across different submissions, making the process repetitive and time-consuming, with little added value.

Currently, most of this data is requested and provided manually, which also necessitates manual updates. As a result, supplier information is often outdated, as it is typically only collected during the initial onboarding process. In other instances, the need for up-to-date information forces companies to allocate employees to manually navigate through customer portals and upload updated documents, such as certificates.

The Submodel automates the exchange of this information, ensuring that it remains up-to-date and can be seamlessly updated through integration with internal systems such as Enterprise Ressource Planning systems. This automation significantly reduces the manual workload, enhances data accuracy, and improves efficiency in the supplier qualification process.

1.4.3. UseCase 2: Onboarding and Maintanance of supplyier data

This use case involves the processes and activities required to initially register new suppliers and continuously update their information. This ensures that the supplier data is accurate, up-to-date, and compliant with organizational standards and regulatory requirements. Key activities include:

1. **Supplier Registration**: Collecting and verifying essential information from new suppliers, such as contact details, tax information, and compliance documents.
2. **Data Validation**: Ensuring the accuracy and completeness of the supplier data through validation checks and approvals.
3. **Data Integration**: Integrating supplier data into the organization's procurement and financial systems.
4. **Ongoing Maintenance**: Regularly updating supplier information to reflect changes in contact details, product offerings, compliance status, etc.
5. **Compliance Monitoring**: Continuously monitoring supplier data for compliance with legal and regulatory requirements.

This process helps organizations maintain a reliable and efficient supply chain, reduce risks, and ensure smooth procurement operations.

In an automated process, it is necessary to map the requested information with the information provided by the supplier. Missing information must be requested from the supplier.

1.4.4. UseCase 3: Mapping of supply chain partners

Precise location information plays a central role in many industrial applications and is becoming increasingly important for companies to make their processes more resilient and efficient. The standardized provision of such information enables it to be captured in a structured manner and integrated into decision-making and optimization processes.

For example, locations can be evaluated based on geographical risks to enhance resilience against external factors such as natural disasters, political and economic uncertainties, or infrastructural challenges. Additionally, the standardized structure facilitates the exchange of such data between supply chain partners, significantly simplifying the analysis of dependencies and the identification of potential vulnerabilities.

A specific example: A machinery manufacturer sources critical components from Supplier A because their conditions — such as price, quality, and delivery times — align perfectly with the manufacturer's requirements. However, a location assessment revealed that Supplier A operates in a region with a high flood risk. To mitigate this risk, Supplier B, located in a safer region, was included in the strategy as an alternative supplier. This ensures that, in the event of disruptions at Supplier A, such as flooding, the manufacturer can quickly switch to Supplier B without disrupting production. To further manage the risks associated with Supplier A, additional data sources, such as current weather reports and long-term climate forecasts, were incorporated into the analysis. This monitoring enables the manufacturer to predict potential disruptions early and take timely action — such as temporarily switching to Supplier B — before Supplier A experiences production interruptions.

This example demonstrates how combining standardized location data with additional information enables accurate forecasting and strategic safeguards along the supply chain. Companies can thus not only optimize costs but also significantly improve the resilience of their processes.

Chapter 2. Submodel "Provision of Company Data"

2.1. Approach

To define the most relevant information for inclusion in the Submodel "Company Data," the working group analysed supplier onboarding processes across multiple companies and identified commonly requested data points. After excluding information that can be provided by other Submodels, such as contact details and subsidiary structures, the remaining data was categorized into subjects. Each category was then modelled as a Submodel Element Collection as follows:

- Company Identification contains basic information and identifiers for a corporate entity, similar to a company nameplate.
- Bank Accounts includes payment information for customers.
- Business Report Figures provides operational metrics that change frequently and, therefore, must be tied to a specific date.
- Digital Interfaces details information on digital systems, supported file formats, and data exchange options.
- Company Governance covers corporate compliance topics, such as security and risk management, as well as environmental, social and governance matters.

Modelling an entire company, with its many adjacent subjects, is a complex undertaking, as each industry and company requires different information. Therefore, the Submodel aims for flexibility instead of defining every possible value. For instance, it does not attempt to provide exhaustive lists of laws and standards that may affect a company operating in multiple countries. Instead, it offers generic structures that allow companies to supply declarations and compliance information relevant to their specific regulatory environment or industry.

Figure 2 shows the UML diagram overview of the Submodel.

2.2. Properties of the Submodel "Provision of Company Data"

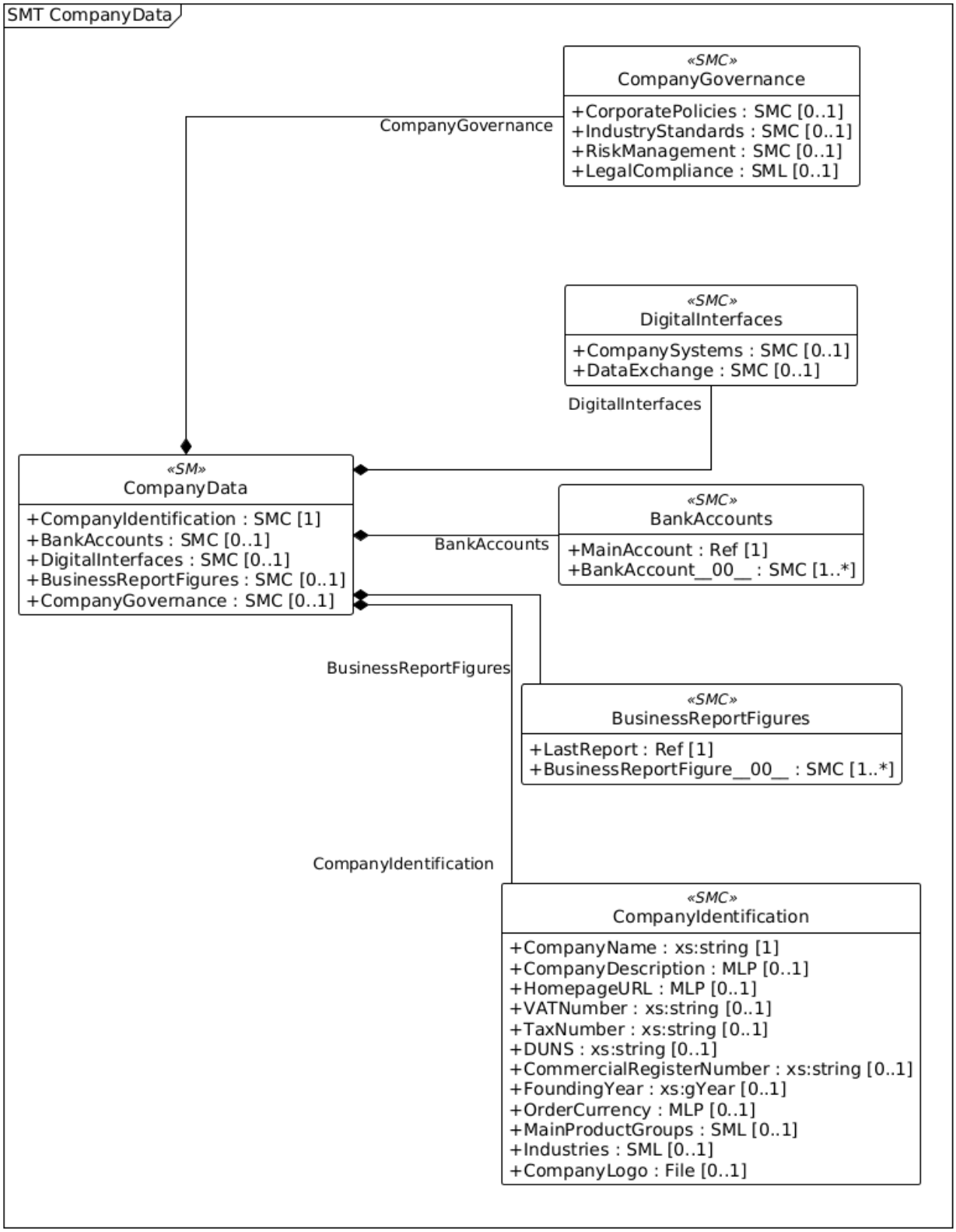

Figure 2. UML for Submodel CompanyData and substructures

Table 1. CompanyData

idShort:	**CompanyData**
Class:	Submodel
semanticId:	https://admin-shell.io/idta/CompanyData/1/0/CompanyData
Explanation:	Structured data for a company, corporation, branch, or division

[SME type] idShort	semanticId Description@en	[valueType] example	card.
[SMC] CompanyIdentification	https://admin-shell.io/idta/CompanyData/CompanyIdentification/1/0 Identifiers of a company, corporation, branch, or division	n/a	1
[SMC] BankAccounts	https://admin-shell.io/idta/CompanyData/BankAccounts/1/0 Bank account information to facilitate payment	n/a	0..1
[SMC] DigitalInterfaces	https://admin-shell.io/idta/CompanyData/DigitalInterfaces/1/0 Systems and protocols used by the company to enable digital communication and data exchange	n/a	0..1
[SMC] BusinessReportFigures	https://admin-shell.io/idta/CompanyData/BusinessReportFigures/1/0 Annual metrcis of a company	n/a	0..1
[SMC] CompanyGovernance	https://admin-shell.io/idta/CompanyData/CompanyGovernance/1/0 Policies and processes ensuring compliance within a company	n/a	0..1

2.3. Properties of the SMC "CompanyIdentification"

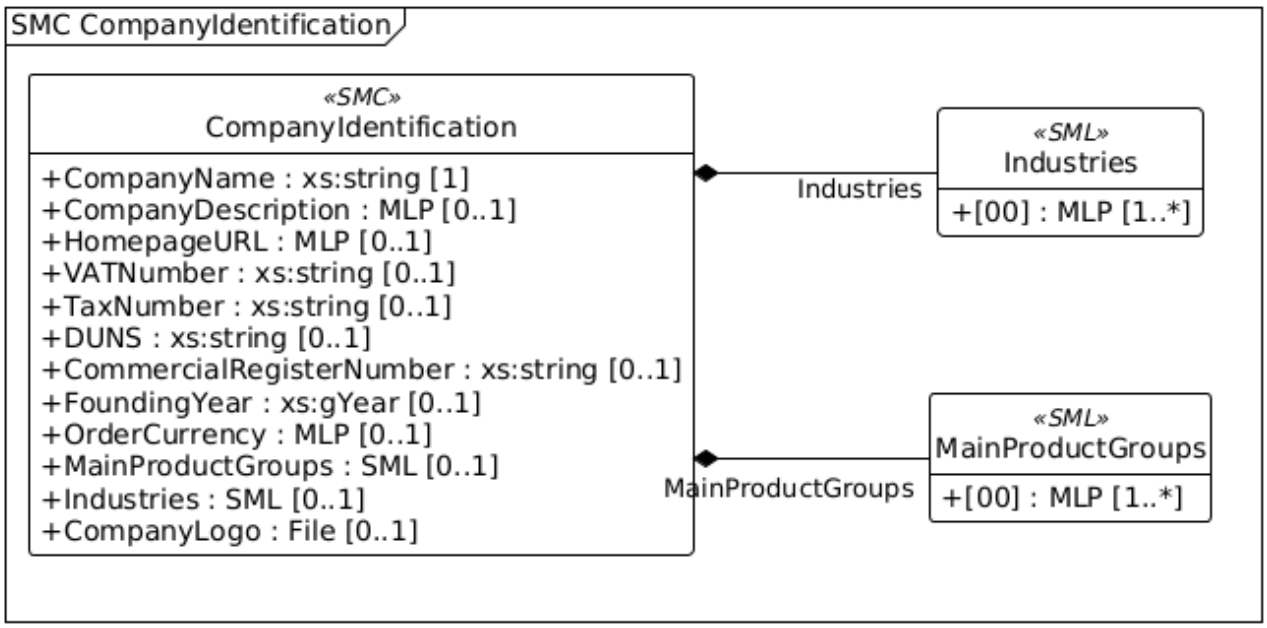

Figure 3. UML for CompanyIdentification and substructures

Table 2. CompanyIdentification

idShort:	**CompanyIdentification**

Class:	SubmodelElementCollection		
semanticId:	https://admin-shell.io/idta/CompanyData/CompanyIdentification/1/0		
Parent:	SM CompanyData		
Explanation:	Identifiers of a company, corporation, branch, or division		
[SME type] idShort	semanticId Description@en	[valueType] example	card.
[Prop] CompanyName	https://admin-shell.io/idta/CompanyData/CompanyName/1/0 Legally valid name under which a company or organization is registered and conducts business	[String]	1
[File] CompanyLogo	0173-1#02-ABI776#002 Imagefile for logo of the company provided in common format (.png, .jpg)	[File]	0..1
[MLP] CompanyDescription	https://admin-shell.io/idta/CompanyData/CompanyDescription/1/0 A short summary of the company's main activities, products or services, and its mission or vision	[langString]	0..1
[MLP] HomepageURL	https://admin-shell.io/idta/CompanyData/HomepageURL/1/0 Web address of the company's official website, for customers and interested parties	[langString]	0..1
[Prop] VATNumber	https://admin-shell.io/idta/CompanyData/VATNumber/1/0 Value Added Tax identification number required by companies in the European Union for handling VAT transactions	[String]	0..1
[Prop] TaxNumber	https://admin-shell.io/idta/CompanyData/TaxNumber/1/0 Identifier assigned to a company by the tax authority	[String]	0..1
[Prop] DUNS	https://admin-shell.io/idta/CompanyData/DUNS/1/0 Data Universal Numbering System number, a unique nine-digit identifier assigned by Dun & Bradstreet to identify companies globally	[String]	0..1
[Prop] CommercialRegisterNumber	https://admin-shell.io/idta/CompanyData/CommercialRegisterNumber/1/0 The number under which a company is registered in the commercial register	[String]	0..1

[Prop] FoundingYear	https://admin-shell.io/idta/CompanyData/FoundingYear/1/0 The year in which the company was established	[GYear]	0..1
[MLP] OrderCurrency	https://admin-shell.io/idta/CompanyData/OrderCurrency/1/0 The currency in which the company processes its orders and transactions	[langString]	0..1
[SML] MainProductGroups	https://admin-shell.io/idta/CompanyData/MainProductGroups/1/0 The primary categories of products that the company offers	n/a	0..1
[SML] Industries	https://admin-shell.io/idta/CompanyData/Industries/1/0 The sectors in which the company operates	n/a	0..1

2.4. Properties of the SML "MainProductGroups"

Table 3. MainProductGroups

idShort:	**MainProductGroups**		
Class:	SubmodelElementList		
semanticId:	https://admin-shell.io/idta/CompanyData/MainProductGroups/1/0		
Parent:	SM CompanyIdentification		
Explanation:	The primary categories of products that the company offers		
[SME type] idShort	semanticId Description@en	[valueType] example	card.
[MLP] MainProductGroup	https://admin-shell.io/idta/CompanyData/MainProductGroup/1/0 A category of products that the company offers	[langString]	1..*

2.5. Properties of the SML "Industries"

Table 4. Industries

idShort:	**Industries**
Class:	SubmodelElementList
semanticId:	https://admin-shell.io/idta/CompanyData/Industries/1/0
Parent:	SMC CompanyIdentification
Explanation:	The sectors in which the company operates

[SME type] idShort	semanticId Description@en	[valueType] example	card.
[MLP] Industry	https://admin-shell.io/idta/CompanyData/Industry/1/0 An industry sector	[langString]	1..*

2.6. Properties of the SMC "BankAccounts"

Table 5. BankAccounts

idShort:	**BankAccounts**		
Class:	SubmodelElementCollection		
semanticId:	https://admin-shell.io/idta/CompanyData/BankAccounts/1/0		
Parent:	SM CompanyData		
Explanation:	Bank account information to facilitate payment		
[SME type] idShort	semanticId Description@en	[valueType] example	card.
[Ref] MainAccount	https://admin-shell.io/idta/CompanyData/MainAccount/1/0 The main bank account of the company	[-]	1
[SMC] BankAccount__00__	https://admin-shell.io/idta/CompanyData/BankAccount/1/0 A bank account of the company for customer payments	n/a	1..*

Properties of the SMC “BankAccount”

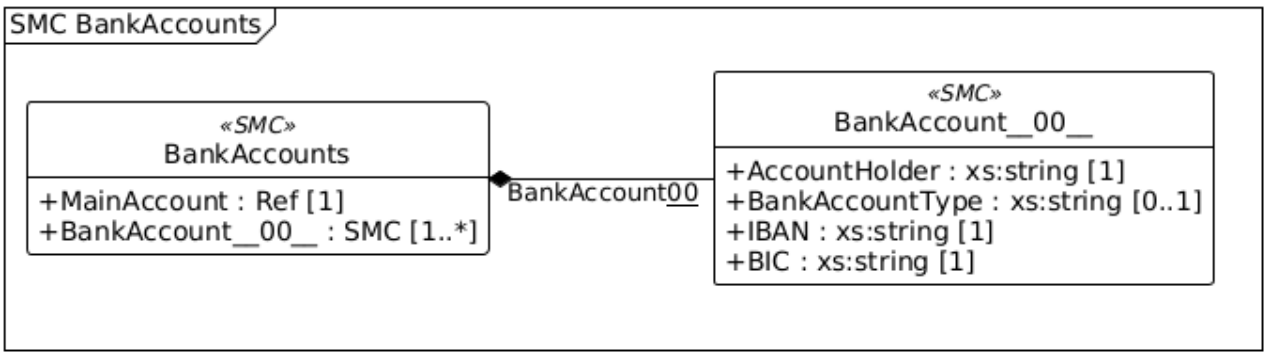

Figure 4. UML for BankAccounts and substructures

Table 6. BankAccount

idShort:	**BankAccount__00__**
Class:	SubmodelElementCollection
semanticId:	https://admin-shell.io/idta/CompanyData/BankAccount/1/0
Parent:	SMC BankAccounts

Explanation:	A bank account of the company for customer payments		
[SME type] idShort	semanticId Description@en	[valueType] example	card.
[Prop] AccountHolder	https://admin-shell.io/idta/CompanyData/AccountHolder/1/0 The individual or entity that owns and manages the bank account	[String]	1
[Prop] BankAccountType	https://admin-shell.io/idta/CompanyData/BankAccountType/1/0 The classification of a bank account, such as accounts for domestic and foreign customers	[String]	0..1
[Prop] IBAN	https://admin-shell.io/idta/CompanyData/IBAN/1/0 The International Bank Account Number, a unique identifier for a specific bank account	[String]	1
[Prop] BIC	https://admin-shell.io/idta/CompanyData/BIC/1/0 The Bank Identifier Code, also known as the SWIFT code, which uniquely identifies a bank for international transactions	[String]	1

2.7. Properties of the SMC "DigitalInterfaces"

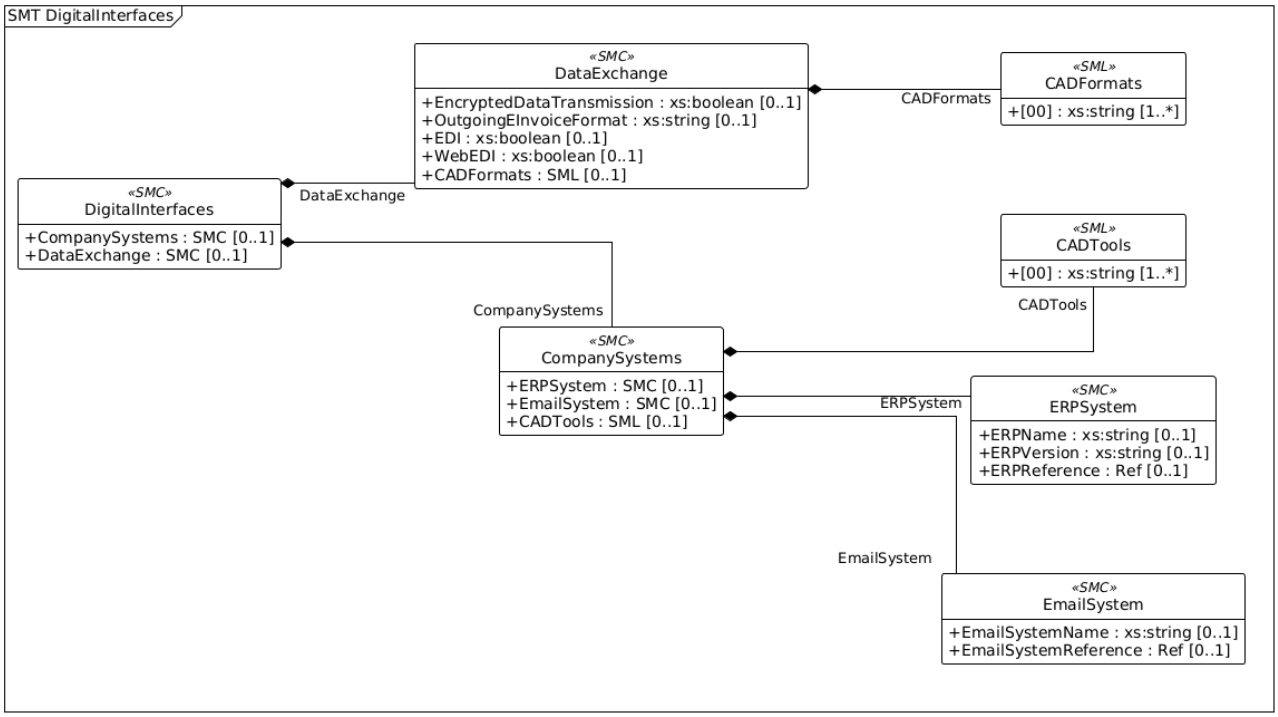

Figure 5. UML for DigitalInterfaces and substructures

Table 7. DigitalInterfaces

idShort:	**DigitalInterfaces**

Class:	SubmodelElementCollection		
semanticId:	https://admin-shell.io/idta/CompanyData/DigitalInterfaces/1/0		
Parent:	CompanyData		
Explanation:	Systems and protocols used by the company to enable digital communication and data exchange		
[SME type] idShort	semanticId Description@en	[valueType] example	card.
[SMC] CompanySystems	https://admin-shell.io/idta/CompanyData/CompanySystems/1/0 The internal IT systems used by a company	n/a	0..1
[SMC] DataExchange	https://admin-shell.io/idta/CompanyData/DataExchange/1/0 The methods and formats used to transfer data between systems	n/a	0..1

2.8. Properties of the SMC "CompanySystems"

Table 8. CompanySystems

idShort:	**CompanySystems**		
Class:	SubmodelElementCollection		
semanticId:	https://admin-shell.io/idta/CompanyData/CompanySystems/1/0		
Parent:	SMC DigitalInterfaces		
Explanation:	The internal IT systems used by a company		
[SME type] idShort	semanticId Description@en	[valueType] example	card.
[SMC] ERPSystem	https://admin-shell.io/idta/CompanyData/ERPSystem/1/0 Contains information about an enterprise resource planning system that integrates various business processes	n/a	0..1
[SMC] EmailSystem	https://admin-shell.io/idta/CompanyData/EmailSystem/1/0 The software used by a company to manage its email communications	n/a	0..1
[SML] CADTools	https://admin-shell.io/idta/CompanyData/CADTools/1/0 Computer-aided design tools used for creating precise drawings and models	n/a	0..1

2.9. Properties of the SMC "ERPSystem"

Table 9. ERPSystem

idShort:	**ERPSystem**		
Class:	SubmodelElementCollection		
semanticId:	https://admin-shell.io/idta/CompanyData/ERPSystem/1/0		
Parent:	SMC CompanySystems		
Explanation:	Contains information about an enterprise resource planning system that integrates various business processes		
[SME type] idShort	semanticId Description@en	[valueType] example	card.
[Prop] ERPName	https://admin-shell.io/idta/CompanyData/ERPName/1/0 The specific name of the enterprise resource planning system	[String]	0..1
[Prop] ERPVersion	https://admin-shell.io/idta/CompanyData/ERPVersion/1/0 The version number of the enterprise resource planning software in use	[String]	0..1
[Ref] ERPReference	https://admin-shell.io/idta/CompanyData/ERPReference/1/0 Reference to the Software Nameplate Submodel of the enterprise resource planning system	[-]	0..1

2.10. Properties of the SMC "EmailSystem"

Table 10. EmailSystem

idShort:	**EmailSystem**		
Class:	SubmodelElementCollection		
semanticId:	https://admin-shell.io/idta/CompanyData/EmailSystem/1/0		
Parent:	SMC CompanySystems		
Explanation:	The software used by a company to manage its email communications		
[SME type] idShort	semanticId Description@en	[valueType] example	card.
[Prop] EmailSystemName	https://admin-shell.io/idta/CompanyData/EmailSystemName/1/0 The specific name of the email software used by the company	[String]	0..1

[Ref] EmailSystemReference	https://admin-shell.io/idta/CompanyData/EmailSystemReference/1/0 Reference to the Software Nameplate submodel of the email system	[-]	0..1

2.11. Properties of the SML "CADTools"

Table 11. CAD Tools

idShort:	**CADTools**		
Class:	SubmodelElementList		
semanticId:	https://admin-shell.io/idta/CompanyData/CADTools/1/0		
Parent:	SMC CompanySystems		
Explanation:	Computer-aided design tools used for creating precise drawings and models		
[SME type] idShort	semanticId Description@en	[valueType] example	card.
[Prop] Tool	https://admin-shell.io/idta/CompanyData/CADTool/1/0 Computer-aided design tool	[String]	1..*

2.12. Properties of the SMC "DataExchange"

Table 12. DataExchange

idShort:	**DataExchange**		
Class:	SubmodelElementCollection		
semanticId:	https://admin-shell.io/idta/CompanyData/DataExchange/1/0		
Parent:	SMC DigitalInterfaces		
Explanation:	The methods and formats used to transfer data between systems		
[SME type] idShort	semanticId Description@en	[valueType] example	card.
[Prop] EncryptedDataTransmission	https://admin-shell.io/idta/CompanyData/EncryptedDataTransmission/1/0 Indication if the company supports encrypted data transmission	[Boolean]	0..1
[Prop] OutgoingEInvoiceFormat	https://admin-shell.io/idta/CompanyData/OutgoingEInvoiceFormat/1/0 The format used by a company to send electronic invoices	[String]	0..1

[Prop] EDI	https://admin-shell.io/idta/CompanyData/EDI/1/0 Indication if the company supports electronic data transfer	[Boolean]	0..1
[Prop] WebEDI	https://admin-shell.io/idta/CompanyData/WebEDI/1/0 Indication if the company supports web-based electronic data transfer	[Boolean]	0..1
[SML] CADFormats	https://admin-shell.io/idta/CompanyData/CADFormats/1/0 The file formats used for computer-aided design drawings and models at the company	n/a	0..1

2.13. Properties of the SML "CADFormats"

Table 13. CADFormats

idShort:	**CADFormats**		
Class:	SubmodelElementList		
semanticId:	https://admin-shell.io/idta/CompanyData/CADFormats/1/0		
Parent:	SML CADFormats		
Explanation:	The file formats used for computer-aided design drawings and models at the company		
[SME type] idShort	semanticId Description@en	[valueType] example	card.
[Prop] CADFormat	https://admin-shell.io/idta/CompanyData/CADFormat/1/0 Computer-aided design tool file format	[String]	1..*

2.14. Properties of the SMC "BusinessReportFigures"

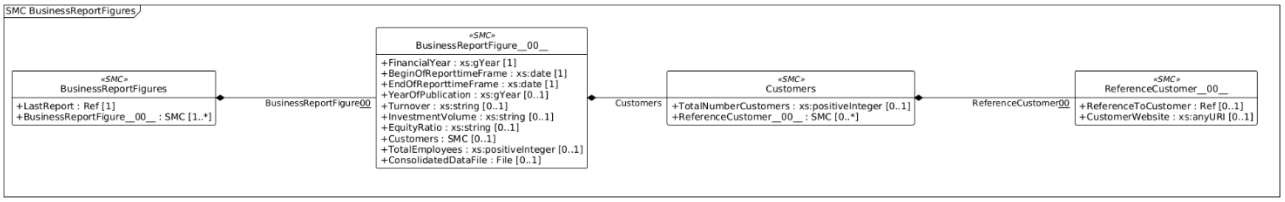

Figure 6. UML for BusinessReportFigures and substructures

Table 14. BusinessReportFigures

idShort:	**BusinessReportFigures**
Class:	SubmodelElementCollection
semanticId:	https://admin-shell.io/idta/CompanyData/BusinessReportFigures/1/0
Parent:	SM CompanyData
Explanation:	Annual metrics of a company

[SME type] idShort	semanticId Description@en	[valueType] example	card.
[Ref] LastReport	https://admin-shell.io/idta/CompanyData/LastReport/1/0 Reference to the most recent business report published by the company	[-]	1
[SMC] BusinessReportFigure__00__	https://admin-shell.io/idta/CompanyData/BusinessReportFigure/1/0 List of annual business reports	n/a	1..*

2.15. Properties of the SMC "BusinessReportFigure"

Table 15. BusinessReportFigure

idShort:	**BusinessReportFigure__00__**		
Class:	SubmodelElementCollection		
semanticId:	https://admin-shell.io/idta/CompanyData/BusinessReportFigure/1/0		
Parent:	BusinessReportFigures		
Explanation:	List of annual business reports		
[SME type] idShort	semanticId Description@en	[valueType] example	card.
[Prop] FinancialYear	https://admin-shell.io/idta/CompanyData/FinancialYear/1/0 The 12-month period used for accounting and financial reporting of the business report	[GYear]	1
[Prop] BeginOfReporttimeFrame	https://admin-shell.io/idta/CompanyData/BeginOfReporttimeFrame/1/0 The start date of the period covered by the business report	[Date]	1
[Prop] EndOfReporttimeFrame	https://admin-shell.io/idta/CompanyData/EndOfReporttimeFrame/1/0 The end date of the period covered by the business report	[Date]	1
[Prop] YearOfPublication	https://admin-shell.io/idta/CompanyData/YearOfPublication/1/0 The year in which the business report was published	[GYear]	0..1
[Prop] Turnover	https://admin-shell.io/idta/CompanyData/Turnover/1/0 The total revenue generated by the company during the reporting period	[String]	0..1

[Prop] InvestmentVolume	https://admin-shell.io/idta/CompanyData/InvestmentVolume/1/0 The total amount of money invested by the company during the reporting period	[String]	0..1
[Prop] EquityRatio	https://admin-shell.io/idta/CompanyData/EquityRatio/1/0 The proportion of equity to total assets, indicating financial stability	[String]	0..1
[SMC] Customers	https://admin-shell.io/idta/CompanyData/Customers/1/0 Information on the company's most important customers	n/a	0..1
[Prop] TotalEmployees	https://admin-shell.io/idta/CompanyData/TotalEmployees/1/0 The total number of employees working for the company	[PositiveInteger]	0..1
[File] ConsolidatedDataFile	https://admin-shell.io/idta/CompanyData/ConsolidatedDataFile/1/0 A file containing aggregated data of the business report	[File]	0..1

2.16. Properties of the SMC "Customers"

Table 16. Customers

idShort:	**Customers**		
Class:	SubmodelElementCollection		
semanticId:	https://admin-shell.io/idta/CompanyData/Customers/1/0		
Parent:	SMC BusinessReportFigure__00__		
Explanation:	Information on the company's most important customers		
[SME type] idShort	semanticId Description@en	[valueType] example	card.
[Prop] TotalNumberCustomers	https://admin-shell.io/idta/CompanyData/TotalNumberCustomers/1/0 The total count of customers served by the company	[PositiveInteger]	0..1
[SMC] ReferenceCustomer__00__	https://admin-shell.io/idta/CompanyData/ReferenceCustomer/1/0 A notable or key customer used as a reference for business credibility	n/a	0..*

2.17. Properties of the SMC "ReferenceCustomer"

Table 17. ReferenceCustomer

idShort:	**ReferenceCustomer__00__**

Class:	SubmodelElementCollection		
semanticId:	https://admin-shell.io/idta/CompanyData/ReferenceCustomer/1/0		
Parent:	SMC Customers		
Explanation:	A notable or key customers used as a reference for business credibility		
[SME type] idShort	semanticId Description@en	[valueType] example	card.
[Ref] ReferenceToCustomer	https://admin-shell.io/idta/CompanyData/ReferenceToCustomer/1/0 Reference to the company AAS of the customer	[-]	0..1
[Prop] CustomerWebsite	https://admin-shell.io/idta/CompanyData/CustomerWebsite/1/0 The website of a customer	[AnyUri]	0..1

2.18. Properties of the SMC "CompanyGovernance"

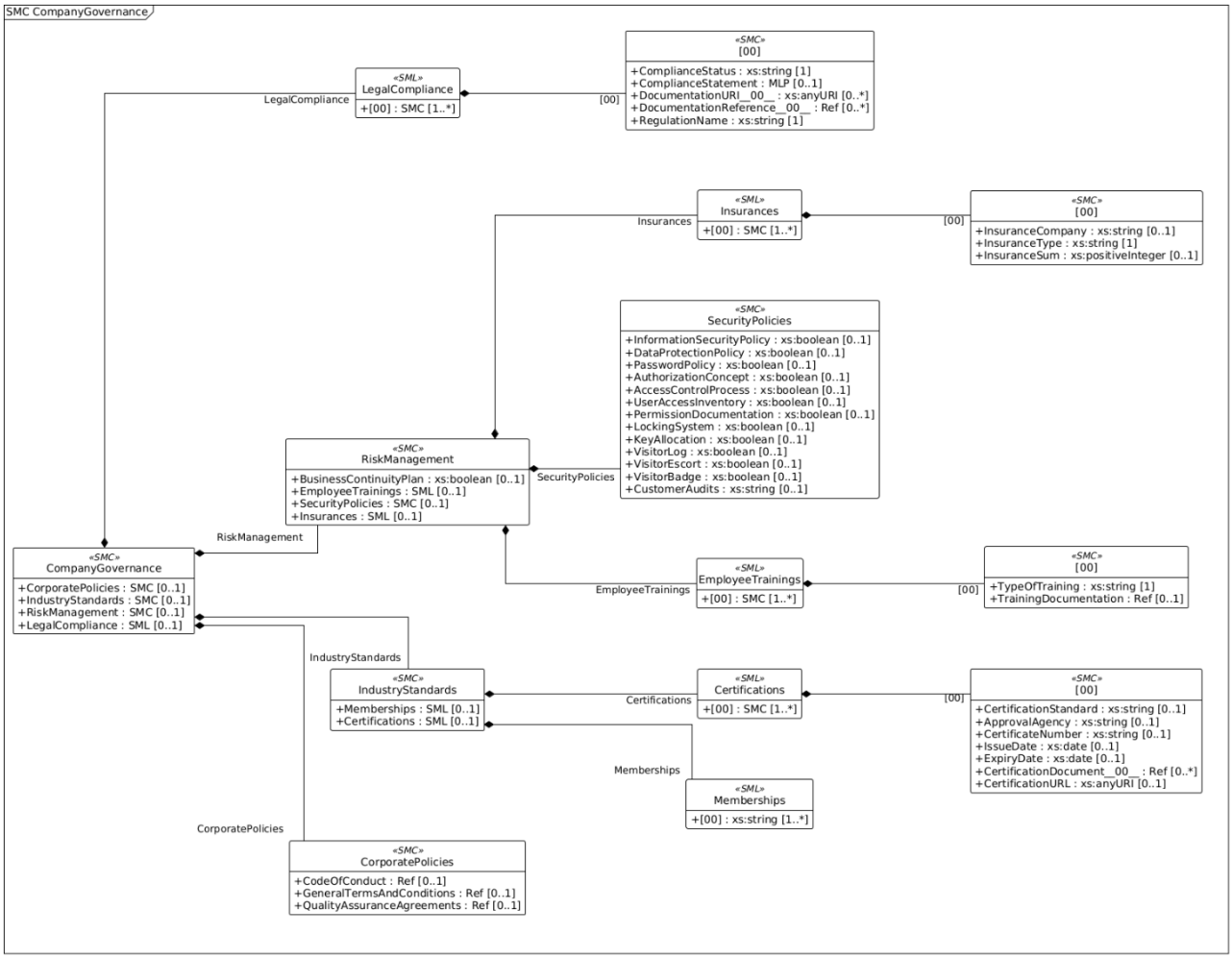

Figure 7. UML for CompanyGovernance and substructures

Table 18. CompanyGovernance

idShort:	CompanyGovernance

Class:	SubmodelElementCollection		
semanticId:	https://admin-shell.io/idta/CompanyData/CompanyGovernance/1/0		
Parent:	SM CompanyData		
Explanation:	Policies and processes ensuring compliance within a company		
[SME type] idShort	semanticId Description@en	[valueType] example	card.
[SMC] CorporatePolicies	https://admin-shell.io/idta/CompanyData/CorporatePolicies/1/0 The guidelines and principles that govern the company's operations and behavior	n/a	0..1
[SMC] IndustryStandards	https://admin-shell.io/idta/CompanyData/IndustryStandards/1/0 Relevant standards and certifications which apply to the company	n/a	0..1
[SMC] RiskManagement	https://admin-shell.io/idta/CompanyData/RiskManagement/1/0 Information on risk management strategies of the company	n/a	0..1
[SML] LegalCompliance	https://admin-shell.io/idta/CompanyData/LegalCompliance/1/0 Contains a list of industry relevant regulations and the company's compliance to them	n/a	0..1

2.19. Properties of the SMC "CorporatePolicies"

Table 19. CorporatePolicies

idShort:	**CorporatePolicies**		
Class:	SubmodelElementCollection		
semanticId:	https://admin-shell.io/idta/CompanyData/CorporatePolicies/1/0		
Parent:	SMC CompanyGovernance		
Explanation:	The guidelines and principles that govern the company's operations and behavior		
[SME type] idShort	semanticId Description@en	[valueType] example	card.
[Ref] CodeOfConduct	https://admin-shell.io/idta/CompanyData/CodeOfConduct/1/0 Reference to a code of conduct document	[-]	0..1

[Ref] GeneralTermsAndConditions	https://admin-shell.io/idta/CompanyData/GeneralTermsAndConditions/1/0 Reference to a contractual terms and conditions document	[-]	0..1
[Ref] QualityAssuranceAgreements	https://admin-shell.io/idta/CompanyData/QualityAssuranceAgreements/1/0 Reference to a quality assurance agreement document	[-]	0..1

2.20. Properties of the Submodel "Provision of Company Data"

Table 20. IndustryStandards

idShort:	**IndustryStandards**		
Class:	SubmodelElementCollection		
semanticId:	https://admin-shell.io/idta/CompanyData/IndustryStandards/1/0		
Parent:	SMC CompanyGovernance		
Explanation:	The accepted norms and criteria within a specific industry		
[SME type] idShort	semanticId Description@en	[valueType] example	card.
[SML] Memberships	https://admin-shell.io/idta/CompanyData/Memberships/1/0 Affiliations with industry organizations or associations	n/a	0..1
[SML] Certifications	https://admin-shell.io/idta/CompanyData/Certifications/1/0 Certifications which the company has acquired	n/a	0..1

2.21. Properties of the SML "Memberships"

Table 21. Memberships

idShort:	**Memberships**		
Class:	SubmodelElementList		
semanticId:	https://admin-shell.io/idta/CompanyData/Memberships/1/0		
Parent:	SML Memberships		
Explanation:	Affiliations with industry organizations or associations		
[SME type] idShort	semanticId Description@en	[valueType] example	card.

[Prop] Membership	https://admin-shell.io/idta/CompanyData/Association/1/0 An industry association which the company is a member of	[String]	1..*

2.22. Properties of the SML "Certification"

Table 22. Certifications

idShort:	**Certifications**		
Class:	SubmodelElementList		
semanticId:	https://admin-shell.io/idta/CompanyData/Certifications/1/0		
Parent:	SML Certifications		
Explanation:	Certifications which the company has acquired		
[SME type] idShort	semanticId Description@en	[valueType] example	card.
[SMC] Certification	https://admin-shell.io/idta/CompanyData/Certification/1/0 A certification the company has acquired	n/a	1..*

2.23. Properties of the SMC "Certification"

Table 23. Certification

idShort:	**Certification**		
Class:	SubmodelElementCollection		
semanticId:	https://admin-shell.io/idta/CompanyData/Certification/1/0		
Parent:	SML Certifications		
Explanation:	A certification the company has acquired		
[SME type] idShort	semanticId Description@en	[valueType] example	card.
[Prop] CertificationStandard	https://admin-shell.io/idta/CompanyData/CertificationStandard/1/0 The identifier of the certification standard	[String]	0..1
[Prop] ApprovalAgency	https://admin-shell.io/idta/CompanyData/ApprovalAgency/1/0 The organization which granted the certification	[String]	0..1
[Prop] CertificateNumber	https://admin-shell.io/idta/CompanyData/CertificateNumber/1/0 The identifier of the certification	[String]	0..1

[Prop] IssueDate	https://admin-shell.io/idta/CompanyData/IssueDate/1/0 The date on which the certification was granted	[Date]	0..1
[Prop] ExpiryDate	https://admin-shell.io/idta/CompanyData/ExpiryDate/1/0 The date on which the certification expires	[Date]	0..1
[Ref] CertificationDocument__00__	https://admin-shell.io/idta/CompanyData/CertificationDocument/1/0 Reference to the certification document	[-]	0..*
[Prop] CertificationURL	https://admin-shell.io/idta/CompanyData/CertificationURL/1/0 The web address where the certification details can be verified	[AnyUri]	0..1

2.24. Properties of the SMC "Riskmanagment"

Table 24. RiskManagement

idShort:	**RiskManagement**		
Class:	SubmodelElementCollection		
semanticId:	https://admin-shell.io/idta/CompanyData/RiskManagement/1/0		
Parent:	SMC CompanyGovernance		
Explanation:	Information on risk management strategies of the company		
[SME type] idShort	semanticId Description@en	[valueType] example	card.
[Prop] BusinessContinuityPlan	https://admin-shell.io/idta/CompanyData/BusinessContinuityPlan/1/0 Flag if the company has set up a business continuity plan	[Boolean] true	0..1
[SML] EmployeeTrainings	https://admin-shell.io/idta/CompanyData/EmployeeTrainings/1/0 List of programs designed to enhance employees' skills and knowledge	n/a	0..1
[SMC] SecurityPolicies	https://admin-shell.io/idta/CompanyData/SecurityPolicies/1/0 Security policies implemented by the company	n/a	0..1
[SML] Insurances	https://admin-shell.io/idta/CompanyData/Insurances/1/0 List of active insurances	n/a	0..1

2.25. Properties of the SML "EmployeeTrainings"

Table 25. EmployeeTrainings

idShort:	**EmployeeTrainings**		
Class:	SubmodelElementList		
semanticId:	https://admin-shell.io/idta/CompanyData/EmployeeTrainings/1/0		
Parent:	SML EmployeeTrainings		
Explanation:	List of programs designed to enhance employees' skills and knowledge		
[SME type] idShort	semanticId Description@en	[valueType] example	card.
[SMC] EmployeeTraining	https://admin-shell.io/idta/CompanyData/EmployeeTraining/1/0 Contains information on a corporate employee training program	n/a	1..*

2.26. Properties of the SMC "EmployeeTraining"

Table 26. EmployeeTraining

idShort:	**EmployeeTraining**		
Class:	SubmodelElementCollection		
semanticId:	https://admin-shell.io/idta/CompanyData/EmployeeTraining/1/0		
Parent:	SML EmployeeTrainings		
Explanation:	Contains information on a corporate employee training program		
[SME type] idShort	semanticId Description@en	[valueType] example	card.
[Prop] TypeOfTraining	https://admin-shell.io/idta/CompanyData/TypeOfTraining/1/0 Type of the training program	[String]	1
[Ref] TrainingDocumentation	https://admin-shell.io/idta/CompanyData/TrainingDocumentation/1/0 Reference to training program documentation	[-]	0..1

2.27. Properties of the SMC "SecurityPolicies"

Table 27. SecurityPolicies

idShort:	**SecurityPolicies**
Class:	SubmodelElementCollection

semanticId:	https://admin-shell.io/idta/CompanyData/SecurityPolicies/1/0		
Parent:	SMC RiskManagement		
Explanation:	Security policies implemented by the company		
[SME type] idShort	semanticId Description@en	[valueType] example	card.
[Prop] InformationSecurityPolicy	https://admin-shell.io/idta/CompanyData/InformationSecurityPolicy/1/0 Indication if the company has implemented an information security policy	[Boolean]	0..1
[Prop] DataProtectionPolicy	https://admin-shell.io/idta/CompanyData/DataProtectionPolicy/1/0 Indication if the company has implemented a data security policy	[Boolean]	0..1
[Prop] PasswordPolicy	https://admin-shell.io/idta/CompanyData/PasswordPolicy/1/0 Flag if the company enforces a password policy	[Boolean]	0..1
[Prop] AuthorizationConcept	https://admin-shell.io/idta/CompanyData/AuthorizationConcept/1/0 Flag if the company has implemented an authorization concept	[Boolean]	0..1
[Prop] AccessControlProcess	https://admin-shell.io/idta/CompanyData/AccessControlProcess/1/0 Flag if the company has implemented an access control process	[Boolean]	0..1
[Prop] UserAccessInventory	https://admin-shell.io/idta/CompanyData/UserAccessInventory/1/0 Flag if the company has implemented an user access inventory	[Boolean]	0..1
[Prop] PermissionDocumentation	https://admin-shell.io/idta/CompanyData/PermissionDocumentation/1/0 Flag if the company has implemented documentation of granted permissions	[Boolean]	0..1
[Prop] LockingSystem	https://admin-shell.io/idta/CompanyData/LockingSystem/1/0 Flag if the company has implemented a locking system	[Boolean]	0..1
[Prop] KeyAllocation	https://admin-shell.io/idta/CompanyData/KeyAllocation/1/0 Flag if the company has implemented a key allocation system	[Boolean]	0..1

[Prop] VisitorLog	https://admin-shell.io/idta/CompanyData/VisitorLog/1/0 Flag if the company has implemented a visitor log	[Boolean]	0..1
[Prop] VisitorEscort	https://admin-shell.io/idta/CompanyData/VisitorEscort/1/0 Flag if the company enforces escorting of visitors on the premises	[Boolean]	0..1
[Prop] VisitorBadge	https://admin-shell.io/idta/CompanyData/VisitorBadge/1/0 Flag if the company hands out badges to visitors	[Boolean]	0..1
[Prop] CustomerAudits	https://admin-shell.io/idta/CompanyData/CustomerAudits/1/0 Flag if the company allows announced customer audits	[Boolean]	0..1

2.28. Properties of the SML "Insurances"

Table 28. Insurances

idShort:	**Insurances**		
Class:	SubmodelElementList		
semanticId:	https://admin-shell.io/idta/CompanyData/Insurances/1/0		
Parent:	SMC RiskManagement		
Explanation:	List of active insurances		
[SME type] idShort	semanticId Description@en	[valueType] example	card.
[SMC] Insurance	https://admin-shell.io/idta/CompanyData/Insurance/1/0 Collection on information about an insurance	n/a	1..*

2.29. Properties of the SMC "Insurance"

Table 29. Insurance

idShort:	**Insurance**		
Class:	SubmodelElementCollection		
semanticId:	https://admin-shell.io/idta/CompanyData/Insurance/1/0		
Parent:	SML Insurances		
Explanation:	Collection on information about an insurance		
[SME type] idShort	semanticId Description@en	[valueType] example	card.

[Prop] InsuranceCompany	https://admin-shell.io/idta/CompanyData/InsuranceCompany/1/0 The provider of the insurance policy	[String]	0..1
[Prop] InsuranceType	https://admin-shell.io/idta/CompanyData/InsuranceType/1/0 The specific category of insurance coverage	[String]	1
[Prop] InsuranceSum	https://admin-shell.io/idta/CompanyData/InsuranceSum/1/0 The amount of coverage provided by the insurance policy	[PositiveInteger]	0..1

2.30. Properties of the SML "LegalCompliance"

Table 30. LegalCompliance

idShort:	**LegalCompliance**		
Class:	SubmodelElementList		
semanticId:	https://admin-shell.io/idta/CompanyData/LegalCompliance/1/0		
Parent:	SMC RiskManagment		
Explanation:	Contains a list of industry relevant regulations and the company's compliance to them		
[SME type] idShort	semanticId Description@en	[valueType] example	card.
[SMC] Regulation	https://admin-shell.io/idta/CompanyData/Regulation/1/0 Contains information about the company's compliance with a regulation	n/a	1..*

2.31. Properties of the SMC "Regulation"

Table 31. ´Regulation

idShort:	**Regulation**		
Class:	SubmodelElementCollection		
semanticId:	https://admin-shell.io/idta/CompanyData/Regulation/1/0		
Parent:	SML LegalCompliance		
Explanation:	Contains information about the company's compliance with a regulation		
[SME type] idShort	semanticId Description@en	[valueType] example	card.
[Prop] RegulationName	https://admin-shell.io/idta/CompanyData/RegulationName/1/0 Official name of the regulation	[string]	1

[Prop] ComplianceStatus	https://admin-shell.io/idta/CompanyData/ComplianceStatus/1/0 Flag if the company has ensured compliance with the regulation, or if the regulation does not apply enumeration: 1. compliant (https://admin-shell.io/idta/CompanyData/ComplianceStatus/Compliant/1/0) 2. not applicable (https://admin-shell.io/idta/CompanyData/ComplianceStatus/NotApplicable/1/0)	[String]	1
[MLP] ComplianceStatement	https://admin-shell.io/idta/CompanyData/ComplianceStatement/1/0 A declaration of relevancy and compliance by the company	[langString]	0..1
[Prop] DocumentationURI__00__	https://admin-shell.io/idta/CompanyData/DocumentationURI /1/0 The web address where documentation can be accessed	[AnyUri]	0..*
[Ref] DocumentationReference__00__	https://admin-shell.io/idta/CompanyData/DocumentationReference/1/0 Reference to regulation compliance documentation	[-]	0..*

Annex A. Explanations on used table formats

1. General

The used tables in this document try to outline information as concise as possible. They do not convey all information on Submodels and SubmodelElements. For this purpose, the definitive definitions are given by a separate file in form of an AASX file of the Submodel template and its elements.

2. Tables on Submodels and SubmodelElements

For clarity and brevity, a set of rules is used for the tables for describing Submodels and SubmodelElements.

- The tables follow in principle the same conventions as in [5].
- The table heads abbreviate 'cardinality' with 'card'.
- The tables often place two informations in different rows of the same table cell. In this case, the first information is marked out by sharp brackets [] form the second information. A special case are the semanticIds, which are marked out by the format: (type)(local)[idType]value.
- The types of SubmodelElements are abbreviated:

SME type	SubmodelElement type
Property	Property
MLP	MultiLanguageProperty
Range	Range
File	File
Blob	Blob
Ref	ReferenceElement
Rel	RelationshipElement
SMC	SubmodelElementCollection
SML	SubmodelElementList

- If an idShort ends with '*_00_*', this indicates a suffix of the respective length (here: 2) of decimal digits, in order to make the idShort unique. A different idShort might be choosen, as long as it is unique in the parent's context.
- The Keys of semanticId in the main section feature only idType and value, such as: https://admin-shell.io/vdi/2770/1/0/DocumentId/Id. The attribute "type" (typically "ConceptDescription" and "(local)" or "GlobalReference") need to be set accordingly; see [6].
- If a table does not contain a column with "parent" heading, all represented attributes share the same parent. This parent is denoted in the head of the table.
- Multi-language strings are represented by the text value, followed by '@'-character and the ISO 639 language code: example@EN.
- The [valueType] is only given for Properties.

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