

# Goods Requirements Business Message Standard (BMS)

Release 3.6, Ratified, Mar 2023





# **Document Summary**

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25-Jun-2014	GS1 GO	14-000110
12-Jul-2016	GS1 GO	16-000340
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# **Business Requirements Document (BRAD) Reference**

BRAD Title	BRAD Issue Date	BRAD Version
BRAD Upstream Standards – Demand & Supply Signals	01-Nov-2004	0.1.0

# **Document Change History**

Date of Change	Version	Changed By	Reason for Change	Summary of Change
12-Jan-2012	BMS 3.0 - Issue 1	Mark Van Eeghem	BMS Release 3.0	See summary of changes
01-May-2013	1-May-2013 BMS 3.1 – (Issue 1	Coen Janssen	BMS Release 3.1	See summary of changes
15-Sep-2014	BMS 3.2 - Issue 1	Ewa Iwicka BMS Release 3.2	See summary of changes	
01-Mar-2017	BMS 3.3 - Issue 1	Ewa Iwicka	BMS Release 3.3	See summary of changes
15-Oct-2018	BMS 3.4 – Issue 1	Ewa Iwicka	BMS Release 3.4	See summary of changes
04-Feb-2021	BMS 3.5 - Issue 1	Miklos Bolyky	BMS Release 3.5	See summary of changes



Date of Change	Version	Changed By	Reason for Change	Summary of Change
05-Jan-2022	BMS 3.5.1 - Issue 1	Miklos Bolyky	BMS Release 3.5.1	See summary of changes
01-Mar-2023	BMS 3.6 - Issue 1	Miklos Bolyky	BMS Release 3.6	See summary of changes

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## 1 Business Domain View

#### 1.1 Introduction

#### **Message Definition**

Goods Requirements message allows the buyer to inform the seller about the requirement for given trade items and locations for specific time periods.

#### **Principles**

Goods Requirements message may be used in traditional order driven scenarios and is definitely needed in supplier managed inventory scenarios, in combination with the Inventory Report.

#### 1.2 References

Reference Name	Description	
[Ref1] BMS eCom Common Library 3.6	The documented design of components that are used in multiple messages. In the eCom Domain.	
[Ref2] BMS Shared Common Library 3.6	The documented design of components that are used in both the eCom Domain and GDSN	
Ref2] BRAD Upstream Standards - Demand & Supply Signals 0.1.0		

# 2 Business Context

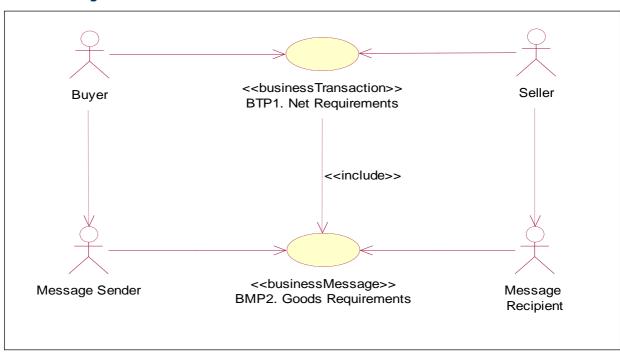
Context Category	Value(s)
Industry	All
Geopolitical	All
Product	All
Process	Plan
Official Constraints	None
System Capabilities	GS1 System



# 3 Business Transaction View

## 3.1 Business Transaction - Net Requirements

#### **Use Case Diagram**



#### **Use Case Description**

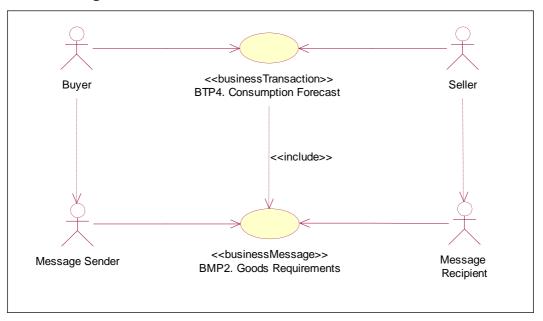
Hee Cook ID	II O ID					
Use Case ID	DILI	BTP1				
Use Case Name	Net Req	uirements				
Use Case Description	The buy	er commu	nicates his net requirements to the seller.			
Actors (Goal)	Buyer:	To send the	e net requirements.			
	Seller:	To receive	the net requirements.			
Performance Goals	Not App	Not Applicable				
Preconditions	Net Req	uirements:	CALCULATED			
Post conditions	Net Req	Net Requirements: COMMUNICATED				
Scenario	Begins when: Buyer has calculated his net requirements. Continues with:					
	Step Actor Activity Step #					
		Buyer Sends Goods Requirements message to the Seller.				
	Seller Receives Goods Requirements Message					
	Ends when:					



Use Case ID	BTP1				
Alternative Scenario	(any al	(any alternatives to the above scenario)			
	Step #	Activity Step			
			Not Applicable		
Business					
Transaction Rules			For communicating the consumption forecast use the goodsRequirementsType with value NET_REQUIREMENTS		

# **3.2 Business Transaction - Consumption Forecast**

#### **Use Case Diagram**





## **Use Case Description**

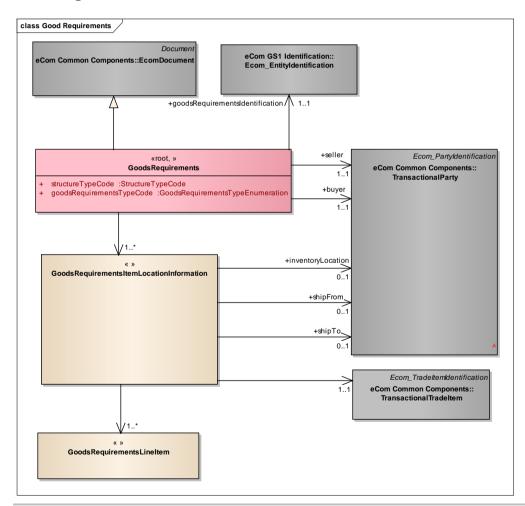
0 10	PEDA			
Use Case ID	BTP4			
Use Case Name	Consumption Forecast			
Use Case Description	The buyer communicates his forecasted consumption to the seller.			
Actors (Goal)	Buyer: To send the consumption forecast.  Seller: To receive the consumption forecast.			
Performance Goals	Not Applicable			
Preconditions	Consumption Forecast: CALCULATED			
Post conditions	Consumption Forecast: COMMUNICATED			
Scenario	Begins when: Buyer has calculated his forecasted consumption.  Continues with:  Step Actor Activity Step  Buyer Sends Goods Requirements message to the Seller.  Seller Receives Goods Requirements Message  Ends when:			
Alternative	(any alternatives to the above scenario)			
Scenario	Step Actor Activity Step #			
	Not Applicable			
Business Transaction Rules	1 For communicating the consumption forecast use the goodsRequirementsType with value GROSS_REQUIREMENTS			



# 4 Business Information View

## **4.1** Goods Requirements

#### **Class diagram**





#### **GDD** report

The content of the GoodsRequirements class, its structure and component definitions can be accessed in the Global Data Dictionary: <a href="http://apps.gs1.org/GDD/bms/Version3\_4/Pages/bieDetails.aspx?semanticURN=urn:gs1:gdd:bie:GoodsRequirements">http://apps.gs1.org/GDD/bms/Version3\_4/Pages/bieDetails.aspx?semanticURN=urn:gs1:gdd:bie:GoodsRequirements</a>

Content	Attribute/Role	Datatype / Secondary class	Multiplicity	Definition	Requirements
GoodsRequirement s				Contains the Goods Requirements from the buyer to the seller for given trade items and locations for specific time periods.	
Association		GoodsRequirementsIte mLocationInformation	1*	Contains the Goods Requirements for given trade items and locations for specific time periods.	
Association	goodsRequirement sIdentification	Ecom_EntityIdentificati on	11	Contains the unique identifier of the business document.	WR 15-000314
Association	buyer	TransactionalParty	11	The buyer associated with the goods requirements for given trade items and locations for specific time periods.	
Association	seller	TransactionalParty	11	The seller associated with the goods requirements for given trade items and locations for specific time periods.	
Generalization		EcomDocument		Basic information about the content of the message including version number, creation date and time.	WR 14-000110
Attribute	goodsRequirement sTypeCode	GoodsRequirementsTy peEnumeration	11	Contains the type of Goods Requirements, gross or net.	
Attribute	structureTypeCode	StructureTypeCode	11	Contains the type of grouping and sequence of the business document.	
GoodsRequirement sItemLocationInfor mation				Contains the Goods Requirements for a given trade item and location for specific time periods.	
Association	shipTo	TransactionalParty	01	The ship to location associated with a goods requirement.	
Association	shipFrom	TransactionalParty	01	The ship from location associated with a goods requirement.	
Association		TransactionalTradeIte m	11	The trade item associated with a goods requirement.	
Association	inventoryLocation	TransactionalParty	01	The location of inventory associated with a goods requirement.	



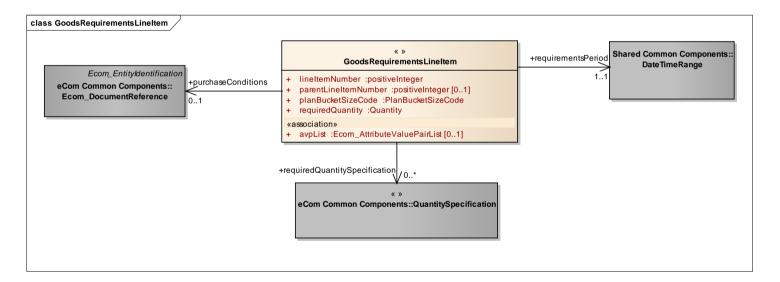
Content	Attribute/Role	Datatype / Secondary class	Multiplicity	Definition	Requirements
Association		GoodsRequirementsLin eItem	1*	Specifies the projected goods requirements for a given location / item.	



**Note:** Reference Shared Common Library Business Message (BMS) Release 3.6 and eCom Domain Common Library Business Message (BMS) Release 3.6 for all common information.

## 4.2 Goods Requirements Line Item

#### **Class Diagram**



#### **GDD Report**

The content of the GoodsRequirementsLineItem class, its structure and component definitions can be accessed in the Global Data Dictionary: <a href="http://apps.gs1.org/GDD/bms/Version3">http://apps.gs1.org/GDD/bms/Version3</a> 4/Pages/bieDetails.aspx?semanticURN=urn:gs1:gdd:bie:GoodsRequirementsLineItem



Content	Attribute / Role	Datatype /Secondary class	Multiplicity	Definition	Requirements
GoodsRequirement sLineItem				Specifies the projected goods requirements for a given location / item.	
Association	purchaseConditio ns	Ecom_DocumentReferen ce	01	Contains a reference to the commercial agreement under which the goods are supplied.	
Association	requiredQuantity Specification	QuantitySpecification	0*	Specifies the cumulative quantity already received for the specified time bucket.	
Association	requirementsPeri od	DateTimeRange	11	Contains the start and end dates and optionally start and end times of the requirements period.	
Attribute	lineItemNumber	positiveInteger	11	Provides the line number associated to the Goods Requirements Line Item.	
Attribute	planBucketSizeC ode	PlanBucketSizeCode	11	Code specifying the duration of the requirements period.	renamed from timeBucketSizeType
Attribute	requiredQuantity	Quantity	11	The number of units required in the specified requirements period.	
Attribute	parentLineItemN umber	positiveInteger	01	The number of line item containing information about the parent of the current item. It allows establishing hierarchical link between the two items.	WR 14-000021 WR 14-000044
Attribute	avpList	Ecom_AttributeValuePair List	01	Temporary attributes introduced between minor versions.	WR 14-000110



**Note:** Reference Shared Common Library Business Message (BMS) Release 3.6 and eCom Domain Common Library Business Message (BMS) Release 3.6 for all common information.



# 4.3 Enumerations (message specific)

Not applicable

## 4.4 Code Lists

Class	Codelist	GDD Link
GoodsRequiremen ts	GoodsRequirementsTyp eEnumeration	http://apps.gs1.org/GDD/Pages/clDetails.aspx?semanticURN=urn:gs1:g dd:cl:GoodsRequirementsTypeEnumeration
GoodsRequiremen ts	StructureTypeCode	http://apps.gs1.org/GDD/Pages/clDetails.aspx?semanticURN=urn:gs1:g dd:cl:StructureTypeCode
GoodsRequiremen tsLineItem	PlanBucketSizeCode	http://apps.gs1.org/GDD/Pages/clDetails.aspx?semanticURN=urn:gs1:g dd:cl:PlanBucketSizeCode



**Note:** Refer to the Global Data Dictionary (GDD) for the code values.



## 5 Business Message Examples

#### 5.1 Example

This is an example of a Goods Requirements message, communicating gross requirements. The message is sent out on 9<sup>th</sup> of February 2011 at 11 AM. The message is identified with the unique identifier GR205666.

#### **Party Information**

GS1 Global Location Number	Party Type
5412345000013	Buyer
4098765000010	Seller
5412345000174	Ship to X
5412345000228	Ship to Y

The gross requirements are sent by the Buyer (GLN 5412345000013) to the Seller (GLN 4098765000010). For informational purposes the Seller includes the name of his material requirements planner (Mr. Gilgamesh).

The gross requirements are for two delivery sites, X (Ship To 5412345000174) and Y (Ship To 5412345000228).

The gross requirements are for one item A (GTIN 40987650000223).

For the item A and delivery site X the gross requirements are:

- Week February 11-17: 1000 units, of which 500 units have already been received.
- Week February 18-25: 200 units.

The contract to be used for the requirements in week February 11-17 (2004000012) was issued by the business unit of the Seller (GLN 4098765000010). Within the contract line 23 refers to this item.

For the requirements in week February 18-25 no contract has been specified.

For item A and delivery site Y the gross requirements are:

- Week February 11-17: 300 units.
- Week February 18-25: 1200 units.

The contract used for the requirements in week February 11-17 (2004000012) is the same as for delivery site X.

For the requirements in week February 18-25 no contract has been specified.

#### **Message Example**

Attribute	Value
GoodsRequirements	
creationDateTime	2011-02-09 11.00
documentStatusCode	ORIGINAL
structureTypeCode	ITEM_BY_LOCATION
goodsRequirementsTypeCode	GROSS_REQUIREMENTS
EntityIdentification (+goodsRequirementsIdentification)	
entityIdentification	GR205666
PartyIdentification (+contentOwner)	
gln	5412345000013
TransactionalParty (+seller)	



Attribute	Value
gln	4098765000010
TransactionalParty (+buyer)	
gln	5412345000013
Contact	
personName	Gilgamesh
responsibility	goodsRequirementsPlanner
GoodsRequirementsItemLocationInformation *1	
TransactionalParty (+shipTo)	
gln	5412345000174
TransactionalTradeItem	
gtin	40987650000223
GoodsRequirementsLineItem *1.1	
lineItemNumber	1
planBucketSizeCode	WEEK
requiredQuantity	1000
DateTimeRange (+requirementsPeriod)	
beginDate	2011-02-11
endDate	2011-02-17
DocumentReference (+purchaseConditions)	
lineItemNumber	23
entityIdentification	PC356987
PartyIdentification (+contentOwner)	
gln	4098765000010
QuantitySpecification (+requiredQuantitySpecification)	
quantitySpecificationType	RECEIVED
specificQuantity (value, unitOfMeasure)	500
GoodsRequirementsLineItem *1.2	
lineItemNumber	2
planBucketSizeCode	WEEK
requiredQuantity	1200
DateTimeRange (+requirementsPeriod)	
beginDate	2011-02-18
endDate	2011-02-25
GoodsRequirementsItemLocationInformation *2	
TransactionalParty (+shipTo)	
gln	5412345000228
TransactionalTradeItem	
gtin	40987650000223
GoodsRequirementsLineItem *2.1	
lineItemNumber	1



Attribute	Value
planBucketSizeCode	WEEK
requiredQuantity	300
DateTimeRange (+requirementsPeriod)	
beginDate	2005-02-11
endDate	2005-02-17
DocumentReference (+purchaseConditions)	
lineItemNumber	23
entityIdentification	PC356987
PartyIdentification (+contentOwner)	
gln	4098765000010
GoodsRequirementsLineItem *2.2	
lineItemNumber	2
planBucketSizeCode	WEEK
requiredQuantity (value, unitOfMeasure)	1200
DateTimeRange	
beginDate	2011-02-18
endDate	2011-02-25

# **6** Implementation Considerations

#### 6.1 User Guide

The Functional User Guide contains more information about the structure and content of the Goods Requirements message: <a href="http://www.gs1.org/docs/ecom/xml/3/3.4/eCom-table-trade-nessages.html#GoodsRequirements">http://www.gs1.org/docs/ecom/xml/3/3.4/eCom-table-trade-nessages.html#GoodsRequirements</a>

# **6.2** Message Specific Considerations

Not Applicable



# 7 Summary of Changes

Any change in the GS1 standards is done based on the Work Request (WR) submitted by the GS1 User Companies or Member Organisations. All Work Requests are documented in the Work Request system available on the GS1 website: <a href="http://wr.gs1.org">http://wr.gs1.org</a>. The system is accessible to registered users. New visitors need to register first, to be able to access it. WRs can be searched by the number referenced in tables below, see: Search Work Requests. The number starts with the two last digits of the year when it was submitted, followed by the consecutive number within that year.



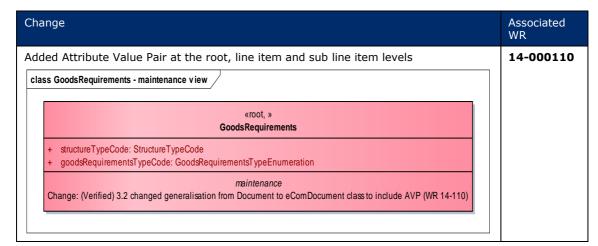
Note: WRs submitted earlier than February 2012 should be searched in Old Change Requests.

Change	Associated CR Number
For BMS Release 3.0.0	Not Applicable
Updated to reflect changes in modelling methodology.	
For Issue Resolution:	Not Applicable
Fixed typo in title section 11: "Principals" -> "Principles"	
<ul> <li>Updated business example and test data for the changes in sequencing and issue resolution.</li> </ul>	
For Peer Review:	Not Applicable
<ul> <li>Changed font in alternate scenario in use case section 4.2 from Times New Roman to Arial</li> </ul>	
<ul> <li>Changed font in alternate scenario in use case section 4.4 from Times New Roman to Arial</li> </ul>	
<ul> <li>Changed alignment in the business rule in section 4.2 to left.</li> </ul>	
Changed alignment in the business rule in section 4.4 to left.	
For Publication	Not Applicable
Added Copyright R in GS1 Logo	
Changed Status to Approved	
Removed year reference in footer copyright statement	
Replaced Section 10 with updated AG Principles	

#### **7.1** BMS Release **3.1**

No work requests. Indirect changes due to upgrade to new Shared and eCom Common libraries.

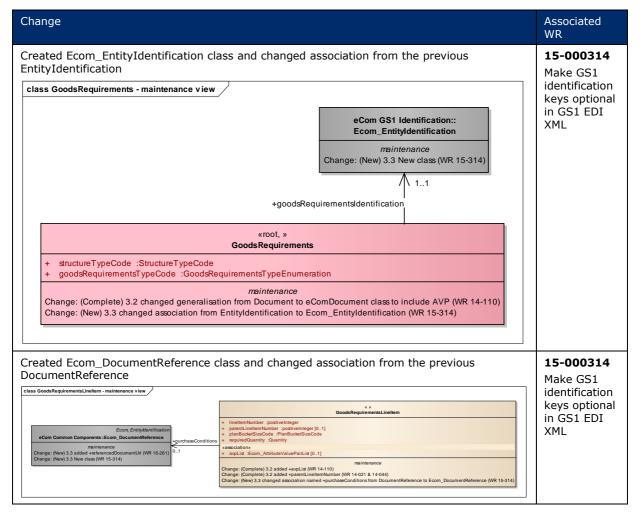
#### **7.2** BMS Release **3.2**





hange	Associated WR
Added Attribute Value Pair at the root, line item and sub line item levels (WR 14-110)	14-000021 14-000044
Added a reference to parent line number to all LineItem classes, to support hierarchical items. (WRs 14-021 & 14-044)	14-000110
class GoodsRequirementsLineItem - maintenance view	
« » GoodsRequirementsLineItem	
+ lineItemNumber: positiveInteger + planBucketSizeCode: PlanBucketSizeCode + requiredQuantity: Quantity + parentLineItemNumber: positiveInteger [01]     «association» + avpList: Ecom_AttributeValuePairList [01]	
maintenance Change: (Verified) 3.2 added +avpList (WR 14-110) Change: (Verified) 3.2 added +parentLineItemNumber (WR 14-021 & 14-044)	

#### 7.3 BMS Release 3.3





#### 7.4 BMS Release 3.4

No work requests. Indirect changes due to upgrade to new Shared and eCom Common libraries.

#### 7.5 BMS Release 3.5

No work requests. Indirect changes due to upgrade to new Shared and eCom Common libraries.

#### 7.6 BMS Release 3.5.1

No work requests. Indirect changes due to upgrade to new Shared and eCom Common libraries.

#### 7.7 BMS Release 3.6

No work requests. Indirect changes due to upgrade to new Shared and eCom Common libraries.

# 8 Appendices

Not Applicable

# 9 Acknowledgements

#### 9.1 Work Group

Function	Name	Company / organisation
Co-chair	Rossner (Pottier), Natascha	GS1 France
Co-chair	Schmidt, Tom Eric	August Storck KG
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Member	Bodemer, Petra	dm-drogerie markt GmbH + Co. KG
Member	Boikanyo, Rebone	GS1 South Africa / Consumer Goods Council of South Africa
Member	Canada, ON	M3B 3L1
Member	Carlson, Jim	General Mills, Inc.
Member	Chresta, Richard	GS1 Switzerland
Member	Cook, Don	Wal-Mart Stores, Inc.
Member	Cox, Marc	Philips Electronics N.V.
Member	Darnell, David	Systrends
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Member	Foerderer, Klaus	GS1 Germany
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Member	Harpell, Eileen	GS1 Community Room Staff
Member	Hand, Phil	JDA Software
Member	Herregodts, Kurt	GS1 Belgium & Luxembourg
Member	Kempkes, Fred	Unilever N.V.



Function	Name	Company / organisation
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Member	Laur, Rita	GS1 Canada
Member	Lenman, Mia	GS1 Sweden
Member	Lerch, Hanjoerg	METRO Group
Member	Moberg, Dale	Axway
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Member	Ng, Ella	GS1 Australia
Member	Peelen, Esther	GS1 Netherlands
Member	Pelekies, Andreas	GS1 Germany
Member	Perrier, Patricia	GS1 France
Member	Przybilla, Christian	GS1 Germany
Member	Pujol, Xavier	GS1 Spain
Member	Racek, Greg	Wal-Mart Stores, Inc.
Member	Repetto, Mirko	GS1 Italy
Member	Robba, Steven	1WorldSync Holdings, Inc.
Member	Rosell, Pere	GS1 Spain
Member	Rosenberg, Steven	GS1 US
Member	Schmid, Sue	GS1 Australia
Member	Schneider, Christian	GS1 Switzerland
Member	Sehorz, Eugen	GS1 Austria
Member	Sharma, Vishal	General Mills, Inc.
Member	Shimazaki, Ayako	GS1 Japan
Member	Sion, Emilie	GS1 France
Member	Souza, Nadia	GS1 Brasil
Member	Strand, Roman	GS1 Germany
Member	Tan, Milton	GS1 Malaysia
Member	Tompsett, Simon	Waitrose
Member	Trelle, Ute	1WorldSync Holdings, Inc.
Member	Tse, Steve	GS1 Hong Kong
Member	Tyson, Betty	Knouse Foods Cooperative, Inc
Member	Van den Bergh, Senne	GS1 Belgium & Luxembourg
Member	Van der Eijk, Pim	OASIS - Sonnenglanz Consulting BV
Member	Veldhuis, Saskia	Procter & Gamble Co.
Member	Welch, Shan	GS1 UK
Member	Westerkamp, Jan	GS1 Netherlands
Member	Wilson, Mary	GS1 US
Member	Windsperger, Bekki	Best Buy Co., Inc.
Member	Yang, Shaopeng	GS1 China



Function	Name	Company / organisation
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Member	Zwanziger, Greg	SUPERVALU

# 9.2 **Development Team Members**

Function	Name	Organisation
GSMP Process Lead	David Buckley	GS1 Global Office
Technical Development Lead	Miklos Bolyky	GS1 Global Office
Peer Review	Mark Van Eeghem	GS1 Global Office