

## Finale Update – Pilot Project Data Exchange

Virtualization. Master Data efficiency. Lead Time Reduction.



Source picture: Shutterstock

In this project, 37 market participants (IT providers, Trimming manufacturers, Apparel brands and Associations) worked on a new, standardized textile industry language, technical fundamentals and innovative mechanics in order to exchange essential data groups in the future inexpensively and in real time with a minimum of manual efforts.

The pilot project data exchange ends in July 2020 and in the area of automated data exchange the participants have made important decisions regarding the future implementation of the project results.

Due to this background, we would like to summarize the most important results in a timely manner in this 3<sup>rd</sup> publication on this important topic, before the details are published in a best practices recommendation that is currently being worked on.

### Contact person:

Andreas Schneider  
Managing Partner – GCS Consulting GmbH  
E-Mail: [schneider@gcs-consulting.de](mailto:schneider@gcs-consulting.de)  
Mobil: +49 171 63 87 999



## Why Master Data automatization?

If we want to meet the key issues of sustainability, corporate social responsibility or the requirements for recycling our products with reasonable effort in the future, we need data.

An efficient and consistent end to end data model is required for the efficient collection of this data, because this is the only way to automatically collect the necessary data, which is without alternative, because nobody can pay for manual data entry.

This requirement exists, because the collection and processing, especially of product-related master data, is now mostly done manually, with corresponding consequences in terms of effort and poor data quality.

The project has identified new technical and methodological approaches to automate the data exchange between business partners and this way make it more efficient.

The following slides show extracts of the most important project results - structured according to the 3 project focus points shown on the right.

## Pilot project data exchange - overview

	Virtual Product Development 	Master Data Automation 	Collaborative planning & forecasting 
Problem	When communicating colour: - Too many failed attempts at Lab Dips - High manual workload - High costs - Time consuming & inefficient (lead time)	When creating product descriptions B2B / B2C: - Zero automation - High manual work load - High cost / time consuming / error prone - Structured data and basic technology is missing	Current Lead Times: - Way too long - Material delivery takes too long - Supply chains are too inflexible - Sole price focus towards suppliers - At the same time high mark downs
Solution	Cloud application (DMIX): - Digital instead of analogue - Data instead of physical samples - Exact spectral value instead of reference to colour systems (e.g. Pantone) - Virtual Showrooms (supplier) - Virtual workspaces (customer)	Master Data & Technology: - Gathering + harmonization of all relevant master data as a basis for automation - Evaluation of new real-time technology	Collaborative planning and forecast: - Collaboration as a new basis - Development of simple & inexpensive best practice recommendation with defined structures & rules based on GUSI (The Global Upstream Initiative) by Consumer Good Forum
Goal	Reduction of manual processes: - Less lab dips due to better hit rate - About 30% less sample costs - 22% lead time improvement - Creating a technical basis for virtual product development	Reduction of manual processes: - Automation of data generation - Automated creation of product descriptions - Retrieval of certificates, such as bank statements	Reduction of lead time + costs: - Reduce discounted sales through more flexible supply chains - Faster material availability - Create basis for "Consumer driven value chains"

The basis of all our project work was a cross-level, end-to-end overall approach, deliberately without functional sector separation of the textile value chain.



## Executive Summary

All thematic project focal points have proven to be relevant and have provided valuable, sometimes completely new, insights:

1. Spectral color communication - depending on scenarios, rules for the use of the right measurement method could be clarified.
2. Master data automation in real-time:  
The methodological and technological basics have been developed, so that in future all parties involved in the value chain can automatically collect the relevant and particularly labor-intensive data with a minimum of manual work; exactly when each party needs its data.
3. Collaborative planning and extrapolation:  
A standard process for system-based demand assessment was developed. In the future, this will automatically allow the supplier side, simultaneously for all connected customers, to determine the current demand data for their products and thus to be able to deliver faster plus with less inventory.

## Pilot Project Data Exchange – latest members

- Ahlers Group
- Alterfil Nähfaden GmbH
- Amann & Soehne GmbH & Co. KG
- Betafashion GmbH
- BE-terna GmbH
- CK Kreativ Knopf GmbH
- Création Gross GmbH & Co. KG
- Color Digital GmbH
- Cortec GmbH
- Chargeurs PCC
- Devetex GmbH
- Digel AG
- ENEA
- Franz Schäfer Etiketten GmbH
- Freudenberg Performance Materials Apparel SE & Co. KG
- GCS Consulting GmbH
- GermanFashion Modeverband e.V.
- GS1 Germany GmbH
- Hugo Boss AG

- Impuls AG
- JAKO AG
- INTEX EDV-Software GmbH
- Knopf-Schäfer GmbH
- Kufner Holding GmbH
- Marc Cain GmbH
- Olymp Bezner KG
- Peter Buedel GmbH
- Ploucquet GmbH
- Pranke GmbH
- Roy Robson Fashion GmbH & Co. KG
- Schaeffer Productique S.A.S
- Schöffel Sportbekleidung GmbH
- sedApta concept GmbH
- SMF/Dedagroup (Stealth)
- SML (Central Europe) GmbH
- SyncForce BV
- sys-pro GmbH



## Measuring Spectral Colors

There are 2 basic methods of measuring color with spectral measuring devices today:

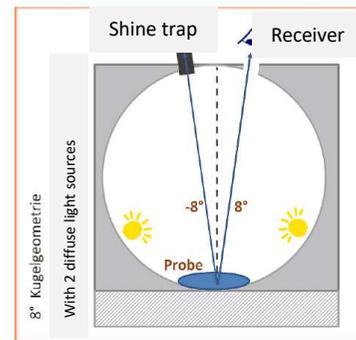
1) The so-called “8 ° diffuse” measurement:  
A method that deliberately eliminates surface influences in a ball with diffuse light sources and is therefore advantageous in textile production and the development of dye recipes.

2) The so-called “45°” measurement:  
It deliberately captures as many surface influences as possible close to the natural sense of light and color, making it possible to use the resulting color value for product virtualization and thus achieve the most realistic result possible. For the reasons mentioned above, this is not so good possible with "8 ° diffuse".

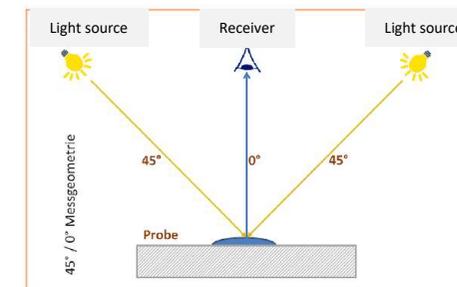
The project has shown that there is no “right or wrong” measurement method, but that there should be given the recommendations described on the right → depending each time individually on a specific application scenario.

## 8 ° diffus versus 45° Messung

Bowl geometry



Angle geometry



Scenario	8 degree diffuse	45 degree	Remarks
Screening color of an object objectively	preferred	Sometimes possible - depending on physical environment like e.g. surface; light	
Legally compliant measurements	possible	possible	No mix of methods → both ends need to use the same measuring method
Calculate a recipe for a color	preferred	Sometimes possible - depending on physical environment like e.g. surface; light	
Digitize material and colors for virtualization	Sometimes possible - depending on physical environment like e.g. surface; light	preferred	



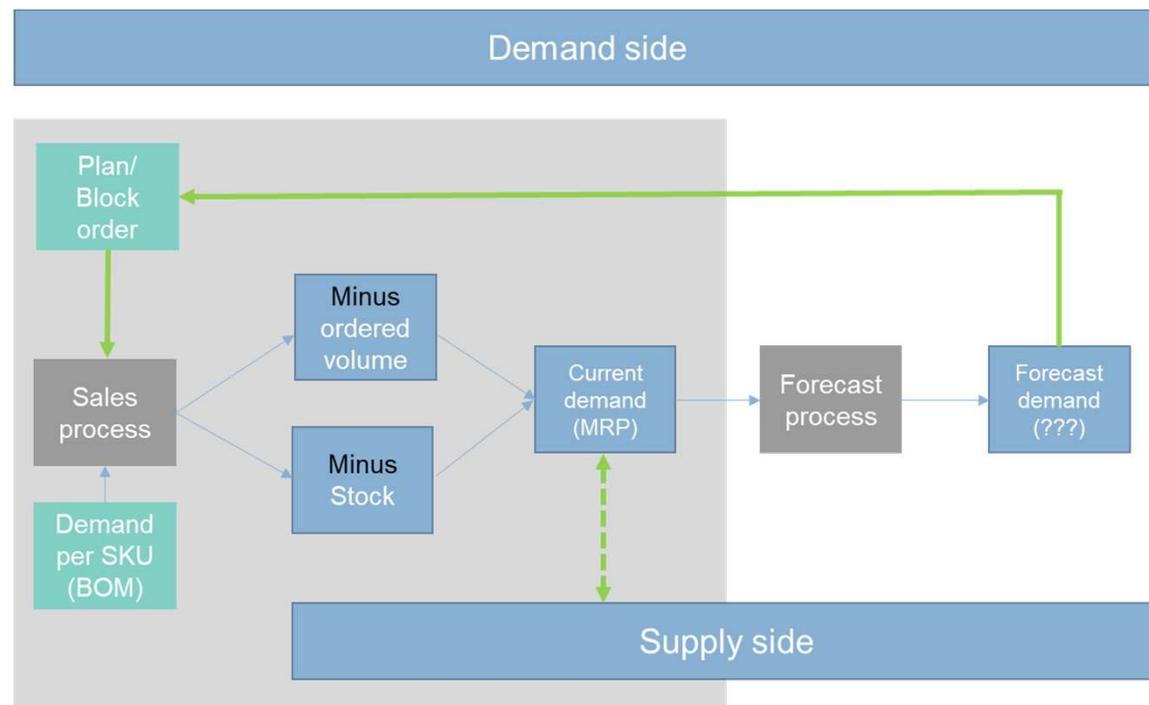
## Collaborative Planning & Forecasting

The current level of collaboration of Brands with suppliers leaves large time and cost potentials unused. So far, there has been no methodological approach, that would allow suppliers to automatically find out the demand of exactly their products from their customers at the push of a button.

When defining the standard process described on the right, it surprisingly turned out that the data structure of the results of the English Material Resource Planning (MRP) functions are almost identical in different ERP systems.

Based on this, the group defined a list of a precisely defined data set that, in combination with the right technology (GTS-Cat - see next slides), will allow suppliers to find out in real time for their respective products, when and, above all, where and how much their customers at what time will need their products on SKU level.

### Sample process for Collaborative Planning & Forecasting



We will only get faster at our lead times if we work more closely with the suppliers. To do this, we need a standardized data format and technology that automatically makes the required data accessible when the supplier needs it and provides it so that the supplier can use the data in his systems immediately and without additional manual work.





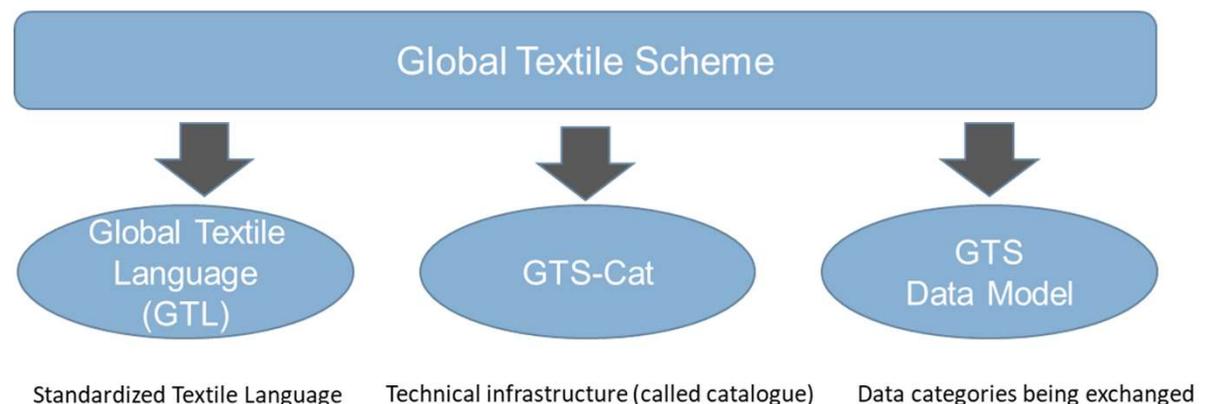
## Automated data exchange with GTS

The project has shown that in addition to the product descriptive attributes shown on the last slide, other data, e.g. Demand Data or customer-specific data such as client specific prices should be exchanged electronically.

This is only possible with an integrated approach consisting of the following 3 components:

1. Standardized data that must be encoded in order to be pulled and to enable multilingualism.
2. A technical surface that does not exist today due to the very special requirements and
3. An end-to-end data model that regulates which data categories should be exchanged and that should be dynamically expandable.

## Global Textile Scheme (GTS) – the integrated approach



The integrated approach in combination with the acceptance of the market allows completely new approaches and processes.



## Automated data exchange with GTL

**Element 1:** the Global Textile Language (GTL).

As part of the project, a scheme was developed e.g. to catalogize and encode all the product descriptive attributes, e.g. the ones listed in the DTB recommendation into a standardized list of characteristics/attributes.

This means that in future each operator can describe the product in his/her own language. The real data exchange then takes place via the codes that are assigned to the features selected for the description. Important: The executing staff has nothing to do with the codes.

How this GTL scheme can look like is shown again on the right using the example "Button" (in English and German).

## The new industry language - Global Textile Language (GTL)

Production material class: TC020000010		Button							
Code	Description	Type	Unit	Unit (imp.)	Value code - Description		Beschreibung		
TF000000001	Subclass Button	A			TV000000001	Hole Button	Lochknopf		
					TV000000002	Shank Button	Ösenknopf		
					TV000000003	Snap Button	Druck Knopf		
					TV000000004	Jeans Button	Jeans Knopf		
					TV000000005	Tape Button	Bandknopf		
					TV000000006	Toggle	Knebel		
					TV000000007	Cufflink	Manschettknopf		
					TV000000008	Other	Andere		
TF000000002	Number of hole button holes	N							
TF000000003	Diameter of hole button holes	N	mm	inch					
TF000000004	Snap button type				TV000000009	S-Spring system	S-Feder System		
					TV000000010	Brass Ring spring	Messingring Feder		
					TV000000011	Nylon Ring spring	Nylon Ring Feder		
					TV000000012	Prong system	Prong system		
					TV000000013	Sew on snap button	Sew on snap button		
					TV000000014	Other	Other		
					TV000000015	Hidden snap	Verborgene Druckknopf Kappe		
					TV000000016	Visible snap	Sichtbare Druckknopf Kappe		
TF000000005	Snap button cap type	A			TV000000017	Reversibel snap	Reversible Druckknopf Kappe		
					TV000000018	Other	Andere		
					TV000000019	Fix jeans button	Fester Jeans Knopf		
					TV000000020	Movable Jeans button	Beweglicher Jeans Knopf		
					TV000000021	Other	Andere		
					TV000000022	Round	Rund		
					TV000000023	Square	Quadratisch		
					TV000000024	Oval	Oval		
TF000000007	Shape	A			TV000000025	Rectangular	Rechteckig		
					TV000000026	Triangular	Dreieckig		
					TV000000027	Special shape	Spezielle Form		
					TV000000028	Other	Andere		
					TV000000029	Colourless	Ohne Farbe		
					TV000000030	Transparent	Transparent		
					TV000000031	White	Weiß		
					TV000000032	Beige	Beige		
TF000000067	Colour	A			TV000000033	Yellow - orange	Gelb - Orange		
					TV000000034	Yellow	Gelb		



## Automated data exchange with GTL

The first pilots have shown that the cross-level GTL approach for 138 product classes from the areas

- Raw materials (e.g. wool, cotton, polyester, etc.),
- Production materials (e.g. fabric, buttons)
- and finished products (currently clothing and shoes)

works amazingly well.

This created a basis for end-to-end data exchange with innovative options for automated data exchange.

The encoding of the data catalog is suitable for fetching labor-intensive data, and this exactly when the user of the data actually needs it.

In addition, attributes that are important for more sustainability or a higher recycling rate, such as e.g. water consumption can be specifically added to the GTL list so that it can be recorded in a structured manner in the future.

## Practical example button with Global Textile Language (GTL)

PB article code	5602032 DULL	
PB color code	860/506	
PB size	36"	

art. 5602032-860-506-36

Feature	Feature Type	Value	Unit
TF000000021 (Accessories generic material)	A	TV0000000280 (Thermoplast material)	
TF000000052 (Accessories-thermoplast materialtype)	A	TV0000000181 (Polyester)	
TF000000095 (Polyester proportion(percentage))	N	100	%
TF000000028 (Accessories - special die set required)	L	false	
TF000000073 (accessories product picture link)	A	http://...	
TF000000062 (Accessories Production method)	A	TV0000000231 (Turned)	
TF000000031 (accessories size)	N	22.5	mm
TF000000033 (accessories size unit)			
TF000000055 (Accessories-appearance)	A	TV0000000199 (Horn pattern)	
TF000000058 (Accessories-coloring technology type)	A	TV0000000211 (Dyed)	
TF000000057 (Accessories-coloring dying variant)	A	TV0000000209 (Through dying)	
TF000000061 (Accessories-Surface finishing)	A	TV0000000226 (Mat)	
TF000000035 (Accessory - Thickness (mm))	N	4.4	mm
TF000000050 (Accessory weight)	N	2.7	g/pc
TF000000045 (Bleaching requirements)	A	TV0000000138 (do not bleach)	
TF000000008 (Branded)	L	true	
TF000000009 (child model)	L	false	
TF000000067 (Colour)	A	TV0000000049 (brown)	
TF000000036 (Country of Origin (ISO3166a2))	A	TV0000000286 (IT)	
TF000000037 (Customs tariff code)	N	96062100	-/-
TF000000047 (Dry cleaning requirements)	A	TV0000000151 (Gentle dry cleaning with perchlorethylene, hydrocarbons)	
TF000000041 (DTB-Industrial washing "Enzyme")	L	false	
TF000000042 (DTB-Industrial washing "Neutral stone wash")	L	false	
TF000000040 (DTB-Industrial washing "Normal")	L	false	
TF000000043 (DTB-Industrial washing "Stone Bleach")	L	false	
TF000000063 (Generic Motive type)	A	TV0000000233 (Logo)	
TF000000068 (logo wording)	A	RBSN	
TF000000039 (Industrial washing methods)			
TF000000046 (Ironing requirements)	A	TV0000000142 (do not iron)	
TF000000013 (price)	N		
TF000000044 (Private washing requirements)	A	TV0000000132 (mild washing process 2 (bis 40°C))	
TF000000012 (Quantity unit)			
TF000000007 (shape)	A	TV0000000022 (round)	
TF000000070 (standard leadtime)	R	3.4	weeks
TF000000071 (stock qty)	N	348	pc
TF000000072 (stock raw material)	N	5870	pc
TF000000001 (subclass Button)	A	TV0000000001 (hole button)	
TF000000032 (Buttons and eyelet - b: hole distance (mm))	N	2.5	mm
TF000000034 (Buttons and eyelet buttons - c: width of web (mm))	N		
TF000000003 (diameter of accessories holes)	N	2.0	mm
TF000000002 (number of accessories holes)	N	4	pc
TF000000049 (Tumbler (dryer) requirements)	A	TV0000000159 (Gentle drying)	
TF000000014 (weight unit)	A		
TF000000048 (Wet cleaning requirements)	A	TV0000000153 (Do not wet clean)	



## Automated data exchange with GTS-Cat

### Element 2: the technical infrastructure:

The project has shown that it makes sense to set up our own technical infrastructure in the upcoming implementation phase.

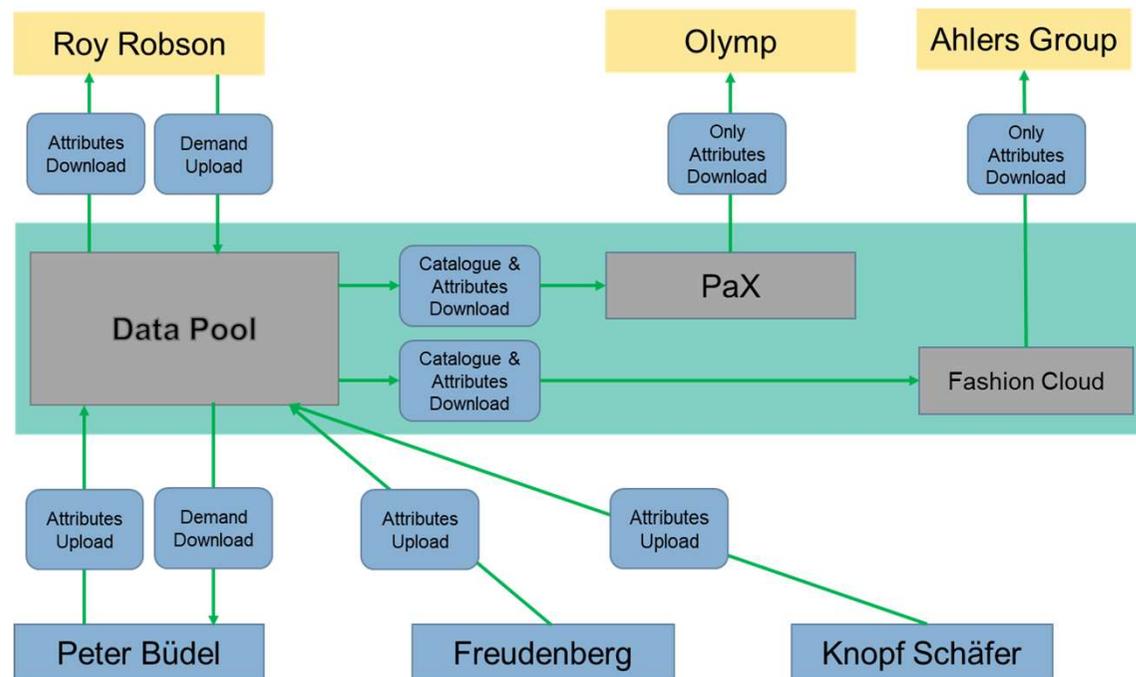
Since such approaches are always called "Cat" (e.g. ICECAT, BMEcat), we called ours the GTS-Cat approach developed in the project.

Despite all the hype surrounding the current "platform economy", no new platform should be created that would easily bring additional interface complexities to the market.

GTS-Cat is neutral and therefore intentionally open to other platforms and will enable the following core functions:

- Download the GTL attribute list;
- Upload of product descriptive attributes, based on the GTL attribute list;
- Upload and download of demand data and
- Exchange of additional, labor-intensive data.

## GTS-Cat - the new technological infrastructure





## Automated data exchange – GTS Data Model

### Element 3: the dynamic GTS data model:

With the Global Textile Scheme we are entering completely new territory. Just as the world continues to turn, especially after Corona, a rigid scheme of which data categories should be transferred in the future makes no sense.

The following categories are currently planned:

- We will use existing standards for the **master data**.
- The **Product Features** section is covered by the Global Textile Language (GTL) and also contains certificate data.
- Sensitive **trading conditions** such as minimum quantities, special prices etc. do not belong in an open attribute list (GTL).
- When it comes to **documents**, we will concentrate on the real documents: certificates such as GOTS, EUR1, supplier declarations etc.
- For **transaction data**, only the requirement data are currently planned, and we do not want to touch any of the usual functions of ERP systems.

## GTS Data Model - the dynamic GTS data model

		Raw-Material supplier	Production-Material supplier	Producer	Brand	Retailer	Logistical function	External Service provider
Type of Information								
Master Data (incl. Trade item specs)								
Product Features	Non-Regulated							
	Regulated							
Trading Conditions 								
Documents								
Selected Transaction data								

No speed without flexibility.  
That is why the GTS Data Model is deliberately dynamic and the GTS-Cat as well.  
The members of the new Global Textile Scheme Initiative decide which data categories will be added in the future.



## Next steps...

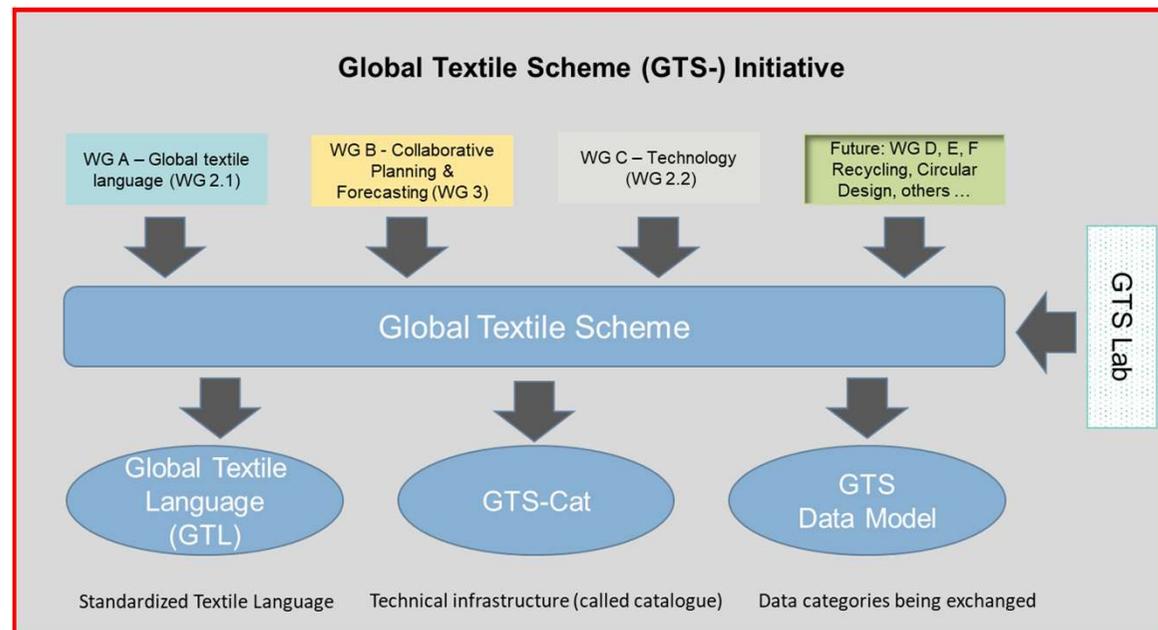
The pilot project data exchange has come a lot further in the one-year term than most of the participants had hoped.

So far, however, only concepts have been worked out, foundations laid, and potentials validated.

In order to harvest the fruits of the work, the following implementation structure was decided by the 44 participants in the last physical meeting:

- Foundation of a so-called Global Textile Scheme Initiative on August 1, 2020 by GCS Consulting GmbH and a separate organization. This initiative will offer interested companies a space to work with like-minded on cross-sectoral issues, of which there are many, and all of which are related to data, e.g. supply chain transparency and recycling.
- In 2020, Global Textile Scheme UG/GmbH will be founded as an operational implementation unit and system head of the Global Textile Scheme Initiative and GTS-Cat.
- Development / operation of the GTS-Cat infrastructure by Pranke GmbH (an experienced EDIFACT service provider with reputation and industry experience).

## The new Global Textile Scheme Initiative



As part of the new Global Textile Scheme Initiative, the GTL Attribute List is being developed, the technical GTS-Cat infrastructure will be developed, and international distribution alliances and the new operational implementation structures are set up.



## Benefits for the user

In mid-July 2020, more than 20 well-known suppliers, brands and IT providers from Germany, France and Italy decided to transform the results of the pilot project into a concrete implementation, because the advantages are impressive.

Each member will promote the Global Textile Scheme Initiative to its suppliers and customers, while the initiative itself is shaped and determined by all participants.

The structure of the initiative, the participation fees and the functions of GTS-Cat are designed so that, most importantly, small and medium-sized companies can participate and, if necessary, can benefit from their participation.

Legislators alone have requirements for the textile industries that cannot be met without an integrated, end-to-end and data-oriented approach, especially for small and medium-sized companies.

## What potential do the members see?

Based on the key questions at the beginning of our pilot project:

### Brand

- Automated data exchange
  - Less manual workload
  - Better data quality
- More speed in CMT & Full Package
- Bases for sustainability and recycling

### Material supplier

- Lower inventory level
- faster delivery lead times
- Bases for sustainability and recycling
- One time investing for many clients

### Brand and material supplier

- Easier data management and less interfaces
- Gaining “one and only” medium/ channel for Real Time data exchange that suits all
- Good chance to solve the chicken/egg problem with GTS-Cat to gain speed on both ends



## Potential in %

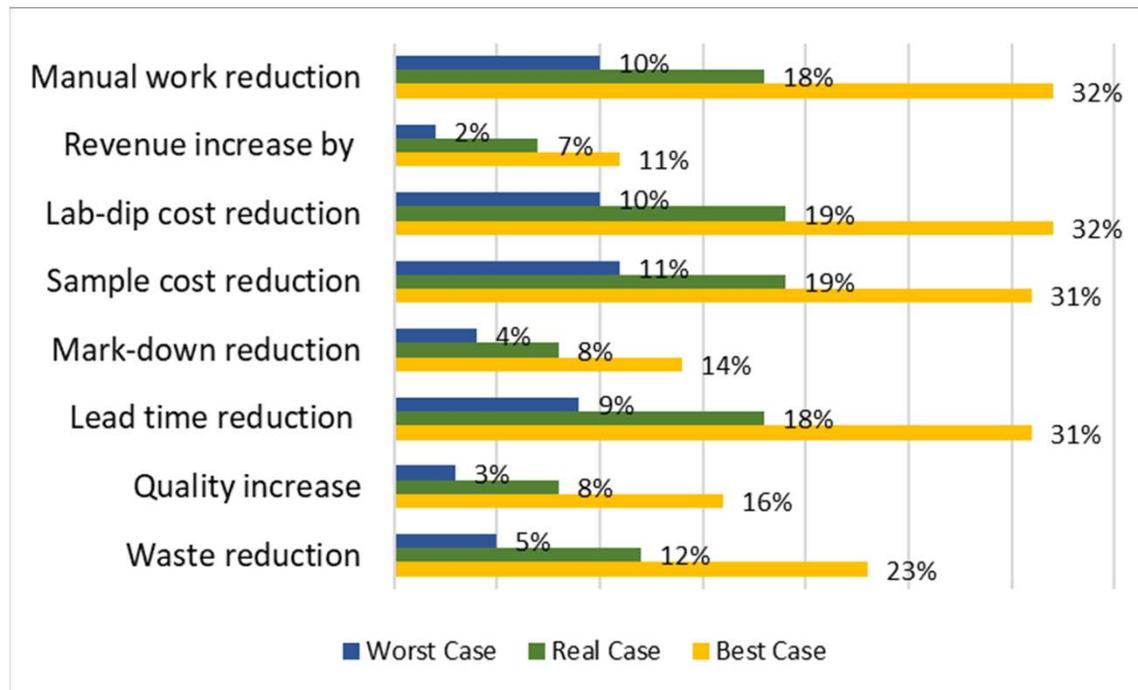
At the beginning of the project, we conducted a survey with the few (then 7) participants to assess the level of defined potential, which we repeated in July 2020 during the last physical meeting.

With all the space for interpretation, that the questions offer, impressive trends can be seen.

The level of the expected potential also clearly explains why so many of the participants will take part in the start-up financing of the implementation structures due to the current difficult market environment with work performance and a share dependent on sales.

Please contact us for further details.

## Results of a survey among the members



**Finally**

Summary and Outlook

The data exchange pilot project was a complete success.

What is coming next won't be a German, but an international initiative and the decision to continue promptly has not been made despite the Covid-19 developments, but among other things also because of Corona and the foreseeable consequences on our markets.

A more detailed presentation of our learnings and project results will be available in form of a Best Practices Recommendation, which will be available to GermanFashion Modeverband members free of charge in September 2020 via the monthly newsletter.

This experience report will not be a dry, classic application recommendation (in the sense of: do this, do not do it), but also explain in context what we have learned in the project.

Due to the learnings most of the participants are convinced that we are currently working on completely new ways of working in our industry and would like to share the valuable experiences that have led to these insights with the other members.

The Global Textile Scheme Initiative will start operating in August 2020 as described.

Please do not hesitate to contact us if this newsletter content has made you curious.

Andreas Schneider: [schneider@gcs-consulting.de](mailto:schneider@gcs-consulting.de)

Cell: +49 171 6387999

# CONTACT

**... we look forward to your participation:**

 **Correspondence address**

GCS Consulting GmbH  
Frankfurter Ring 193a  
80807 München  
Germany

 **Tel.** +49 89 891365 -0

**Mobile** +49 171 63 87 999

 **E-Mail** [info@gcs-consulting.de](mailto:info@gcs-consulting.de)

 **Website** [www.gcs-consulting.de](http://www.gcs-consulting.de)

 **Andreas Schneider** | Managing Partner  
[schneider@gcs-consulting.de](mailto:schneider@gcs-consulting.de)

 **Angelina Schock** | Managing Partner  
[schock@gcs-consulting.de](mailto:schock@gcs-consulting.de)