ECHT - TOOLS FOR TRACEABILITY

Chemicals Traceability Canvas



Imprint

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BACKGROUND AND GOALS

Implementing chemicals traceability along global value chains is a complex and interative process that requires a thorough and holistic understanding of current processes and goals in one's own organisation as well as the supply chain related to this. As a means to quickly cover all these topics in a first easy-to-access manner, the "Chemicals Traceability Canvas for Textiles" is a structured framework that outlines the key stages and fields to address in the process of implementing chemicals traceability along textile value chains. This tool is largely based on the well established business model canvas. However, in this case, the Chemicals Traceability Canvas (CTC) is divided into four sub-canvas that allow for deeped elaboration of critical aspects to be addressed.

The concept of the "Business Model Canvas" (BMC) was proposed by Osterwalder in 2005 and refined since then. According to van Boeijen and colleagues the canvas "as a tool can be used in various stages of the development process [...] The Business Model Canvas serves as a checklist to generate business ideas; it also structures, discusses, and evaluates these ideas on a conceptual level" (Boeijen et al., 2020).

The Chemicals Traceability Canvas makes use of a similarly conceptual and graphical structure while comprising more refined elements and specific impulse questions divided into four separate sheets to raise awareness and guide design processes. It aims at supporting the implementation of chemicals traceability in organisations in an iterative and exploratory manner. This shall be achieved by providing a quick and multi-perspective over-view of relevant topics and considerations. One reason for this approach is traceability cannot be implemented by one department or even one expert alone but is rather an interdisciplinary cross-organisational effort. Since all organisations and value chains are unique, there is no one-size-fits-all solution but rather individual exploratory and iterative approaches through which organisational and technical structures are rearranged and new business cooperations are formed.

The herewith presented canvas does by no means compensate for all the challenges and the complexity this entails, but aims at empowering teams to take first steps towards chemicals traceability based on a broadened scope while identifying organisational and knowledge gaps or the need for specific experts to be consulted or included.

The Canvas, therefore, does not replace thorough analysis of these aspects and gaps, but rather aims at providing a multi-perspective overview and explorative impulse. In line with this, the canvas is not a scientific analysis tool that will directly lead to the implementation of chemicals traceabilty. Its main function is to illustrate a comprehensive overview that informs and guides the process through structure and impulse questions. In this way, otherwise potentially neglected issues such as are put into the centre of awareness.

Osterwalder, A.; Pigneur, Y. Business model generation. A handbook for visionaries, game changers, and challengers. Wiley&Sons: New York, USA, 2013.

van Boeijen, A.; Daalhuizen, J.; Zijlstra, J. Delft design guide. Perspectives, models, approaches, methods. Revised edition. BIS Publishers: Amsterdam, The Netherlands. 2020. p. 135.

INSTRUCTIONS ON HOW TO USE IT...

The complexity inherent to implmenting chemicals traceability requires an interdisciplinary systems thinking approach. Teams might be faced with contradicting targets that make it even more difficult to define a proper briefing and strategic plans.

The canvas is not meant to be a strict formula or checklist but rather an exploratory analysis and conceptualisation tool that can be used and revisited (iterative process) at any stage throughout the design process.

Boxes and questions do not necessarily have to be addressed in their order of appearance. While not all impulse questions might apply to each organisation and their current state, they could raise awareness or identify gaps of knowledge that need to be addressed before moving on in the implementation process. Therefore, the canvas is both explorative inspiration as well as a simplified evaluation tool.

The format as a simple poster with boxes allows to answer and reclect on the impulse questions in any way that fits the organisational processes of your team. Sticky-notes and schematic skechtes are just as suitable as full written text blocks.

The canvas can be fulfilled by one person alone or as part of a workshop or team effort. It is recommended to use the canvas in an iterative manner. At the same time, the canvas can be used and adjusted to the needs of each individual organisation. Therefore, team workshops might require more space or additional worksheets to go deeper into specific boxes or topics. Especially with regards to workshops, it can be useful to combine the canvas with other tools and techniques from the field of design thinking. Workshops applying this canvas should be planned and orchestrated according to the usual principle of design- and brainstorming workshops, curating an open mind-set and appreciating new, disruptive and sometimes unrealistic ideas to go beyond current concepts and solutions. After each workshop, the canvas worksheets should be analysed in detail by the workshop facilitator to extract insights and concepts that otherwise might be lost.

One of the most important aspects of working with the canvas is to identify and indicate relations and interdependencies. Therefore, it is recommended to use arrows, lines and other graphical or written information to illustrate connections and foster systems thinking.

The canvas then is a starting point of actual implementation activities that might lead to new insights and challenges that again could be fed back to one of the canvas sheeds.

OVERALL STRUCTURE

The chemicals traceability canvas is divided into four sheets. Three of the relate to the status quo in an organisation while the fourth sheet addresses future strategies and processes:

1. STATUS QUO: STARTING POINTS

This first canvas focuses on the key parameter and conceptual starting points in a 4-steps-process. The first section "about" deals with the basic descriptive data about the organisation at hand. The following three steps

INSTRUCTIONS ON HOW TO USE IT...

consider the product, relevant actors and the regulatory context. with the basics "about" section

2. STATUS QUO: OBJECTIVES & VISION

The second canvas deep-dives into the goals for implementing traceability. In doing so it addresses both the objectives of one's own organisation as well the value chain partner's objectives. By defining specific chemical traceability KPIs and outlining a valid business model for implementing chemicals traceability, this board aims at setting actionable goals for the further process.

3. STATUS QUO: CURRENT PRACTICE & IMPLEMENTATION GAPS

The third canvas zooms into the current state of the organisation and the delta between the goals and objectives formulated on sheet 2 and the status quo. Current practises are differentiated between input of data and the management of this data in and beyond the organisation. Lastly, barrieres, gaps and other issues are considered that inhibit the implementation of chemicals traceabilty.

4. FUTURE OUTLOOK: STRATEGIES & PROCESSES

Finally, the fourth canvas sheet deals with specific strategies and processes to implement or expand chemicals traceability. Three sections are distinguished: People involved, data management and technology. While there certainly are overlaps of these three topics, it is recommended to consider them individually before addressing the interdependencies.

ITERATIONS

It is crucial to understand the chemicals traceability canvas as an iterative tool that can be used and re-used throughouth the process of implementing traceability. As some organisations might be more experienced and advanced in their efford to implement chemicals traceability, certain sheet and boxed might be more relevant for them than others.

At the same time, identifying gaps and challengens while using the canvas for the first time, offers the chance to come back to the canvas after they have been addressed in an organisation.

In doing so, the canvas can be seen both as an exploratory and guiding tool as well as an evaluational support.

OPEN-END TEMPLATE

Although this canvas has been co-developed and tested with industry partners and an interdisciplinary group of scientific experts, there might be organisations or phases for which important aspects or new trends are entirely missing. Users of the canvas should therefore feel free to adjust and extent the canvas according to the needs of the project. We encourage users who have feedback and ideas for improvement to get in touch with us.

Chemicals Traceability Canvas STATUS-QUO | STARTING POINTS

	Filled-out by:		Project:	Iterat	ion No.:	Date:		
ABO	UT	:	2. PRODUCT					3.
Current internal resources What are the actual human resources available at my organisation to address implementing chemicals traceability? How much budget is allocated to this topic? How many and which departments address this topic?			Specific material proper What are the specific properties (e.g. fun question? How does this relate to the supply chains intellectual property issues]?	ties needed ctionality, quality) needed in the mate we are looking at (e.g. unique suppli	rials in ers,	Risks What are the most critical related chemicals to addre What kind of regulatory an with these chemicals or co traceability?	material properties and ss? d reputational risk is associated uld be addressed by	K W it
Life cy What is m	Vcle perspective y organisation's role in the value		Materials and processes my organisation and its p What are the specific materials and proc traceability?	s used by partners cesses for which I want chemical				
chain? Which per (supply ch	spective will I take to use this canvas ain / life cycle / etc.]?	:	3. ACTORS					
			Supply chains What are my current supply chains? What might be the most advanced/stand beginn with implementing chemicals tra	lard/easiest supply chain to aceability?	Suj How Visua (use	pplier mapping are my suppliers connected? alise this network as complete as a separate sheet of paper, if nec	s possible essary):	
Purpo What is m	se of this canvas y major goal when using this tool?							

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LEGISLATION

Applying regulations

Which regulations (national, EU, global) do I have to consider? Where am I lacking information on regulations and where could I get t?





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Chemicals Traceability Canvas STATUS-QUO | OB JECTIVES & VISION

	Designed by:	Project:	Iteration No.:	Date:
Prima What are t Consider is as well as	ry objectives he primary reasons for my organisation to ir ssues such as compliance, risks for consum economic viability.	nplement chemicals traceability? ers and the environment		Chemicals traceability KPI What baseline measurements do we currently have against which to compare future What specific, measurable metrics could we use to track chemical management perf
Syn	ergy Potential			Business model What might be the business case for chemicals traceability beyond mere regulatory of How can we move from "must-have" to a real busniess-driver?
Object What migh	ives of value chain partners	5 ne chains to implement chemicals traceability?		

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nprovements? rmance?

mpliance?

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STATUS-QUO CURRENT PRACTICE & IMPLEMENTATION GAPS

De	esigned by:	Project:	Iteration No.:	Date:		
1. CURF	RENT PRACTICES - INPUT (OF DATA				
Validatio How do we val our suppliers?	on and evaluation of input data? lidate and evaluate the data we receive from ?			Data Quality and What is the current degree we receive from our supply How is the variance of this o	Integrity of quality and integrity of the data rers? data across different value chains?	
2. CURI	RENT PRACTICES - INSIDE	ORGANISATION				
Monitoring and audits How are we currently monitoring how we manage data on chemicals? How does this allign with our traceability KPI (see board "Objectives & Vision)"?		Data quality an What is the current degree chemicals used in our or Does this quality and inte tranfered inside the orga	d integrity ee of quality and integrity of the data on ganisation? egrity change over time while the data is nisation?	Data distribution and access inside organisation Who has access to what data? How is data exchanged between departments?		
Barriere What are curre Where are pot departments a	es & conflicts of interest rent interests when implementing chemicals traceability tential conflicts of interest (e.g. between various and roles) and how can we address them constructively?	?	Gaps What is missing to align our practice with these o	bjectives?	Relevant What are the m Using a framew which issues fa	issues nost urgent is work of impor all into the car

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Passing on data along value chains

'hat data is passed on by us in our value chains and to other

akeholders?

ow is this data passed on?





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Chemicals Traceability Canvas FUTURE OUTLOOK | STRATEGIES & PROCESSES

Designed by:

Project:

Iteration No.:

Date:

1. PEOPLE INVOLVED

Human resources

Who can take on which task? Who needs to be trained? Who needs to be hired?

2. DATA MANAGEMENT

Chemical compliance

How could we continuously monitor and adapt to evolving regulatory requirements?

What training and communication strategies will ensure consistent understanding of compliance protocols across my organisation?

3. TECHNOLOGY

Technology infrastructure

What technological infrastructure is required to support secure and efficient chemical data sharing (hardware and software)? What type of Chemical Management Systems ist needed? How can we achieve integration across this infrastructure?

Interoperability

How can we ensure interoperability ... across departments? ... with other organisations? ... with other countries?

External service partners

What are relevant third parties that could support us in the transition to and maintenance of chemicals traceability? What are the pros and cons of cooperating with them?

Chemical data processing standardisation

What standardised approaches could we implement for chemical data management and interoperability with the existing system? How will standardised data processing facilitate effective sourcing, procurement decision-making and reporting?

Chemical data sharing

What specific types of chemical information can be safely and legally shared across different stakeholders?

How will we establish secure and authenticated channels for chemical data transmission?

What are the precise consent and transparency protocols for sharing chemical information?

Collaborations

How might we collaborate with competitors? How might we collaborate along our value chains?

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Life Cicle Perspective

Do I address this for 1st use or after-use? How does this affect our processes?

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