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ECHT PROJECT OUTPUT

Training schemes concept

A capacity building programme for the textile value chains

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TRAINING SCHEMES CONCEPT

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Training Schemes Concept
A capacity building programme
for the textile value chains

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Disclaimer

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For more information visit: **https://echt.nweurope.eu/**

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1. Background

Small and medium-sized enterprises (SMEs) face the challenge of ensuring the traceability of their products with regard to their suppliers and customers. They will be obliged to do this in the future due to the regulatory requirements derived from the Green Deal. However, SMEs only have limited human resources; their buyer power is also rather marginal. Therefore, it is all the more important to initiate capacity building among SMEs, which enables them to deal with the challenges appropriately and at the same time exploit their specific strengths and needs.

The transformation towards a resource-conserving and non-toxic circular economy presents companies - especially SMEs - with new challenges. The EU Textile Strategy aims to tackle the high volume of waste with low recycling rates and negative environmental impacts of production. Sustainable Product Policies (i.a. ESPR) prioritise these product groups for new Ecodesign requirements (incl. the Digital Product Passport). These measures require that stakeholders have access to detailed product information. Traceability of chemicals is an important prerequisite for CE-compliant products and business models. The series of workshops will address this politically highly relevant and environmentally pressing issue through concrete recommendations for action and capacity building.

1.1. Briefing for the Capacity Building Programme

Based on the insights and findings of the ECHT project on the traceability of chemicals in global textile value chains **(ECHT project)** this capacity building programme ("training schemes") aims at building capacity to implement traceability in companies (especially SMEs) along the overall textile value chain. This will be done from a more strategic and conceptual point of view, remaining technology neutral. While, technology is one key aspect for the successful implementation of traceability, the actual challenges lie in the proper structural implementation of technologies rather than in the technology itself. Collaboration along the value chain, the development of viable business models and an understanding of the regulatory framework are among other aspects key drivers – especially for SMEs – to benefit from traceability beyond mere regulatory compliance.

In three consecutive workshops, stakeholders from the textile value chains (e.g. producers of fabrics and dyes, brands, retailers, recyclers) will receive input from the areas of academia, NGO and industry, illustrating conceptual knowledge and best practice examples (incl. other sectors). In several co-creative working sessions, participants will generate further insights and knowledge on how to overcome barriers to traceability and gain first-hand, hands-on knowledge concerning the introduction of traceability.

Participants will also be introduced to the "ECHT Knowledge Platform", an online repository and educational tool for industry partners and policy actors. They will have access to materials and know-how that they can directly apply, implement and disseminate within their own organisations.

1.2. Concept Development Process

This programme has been developed in a transdisciplinary way – like the overall project – by a specific working group comprised of members of the textile value chain, NGOs, academia and others. It is primarily informed by the outputs of the ECHT project including the traceability strategy as well as several action plans. An important basis for the development of this concept has been the status-quo analysis for the textile sector led by Neovili and supported by h_da, LIST, UBA, LMDDC, Team2 and PUMA.

In regular online meetings the working group discussed and elaborated on the concept in a collaborative way. In addition to that, a number of bilateral meetings with industry partners, NGOs and academic experts delivered further insights and ideas that were integrated in the concept.

Furthermore, specific tools and materials were developed by the working group as well as individual members of this group in a transparent and co-creative manner using for instance tools such as Miro Boards. This includes the development of the Traceability Canvas and the Trace-It simulation game (fig. 1).

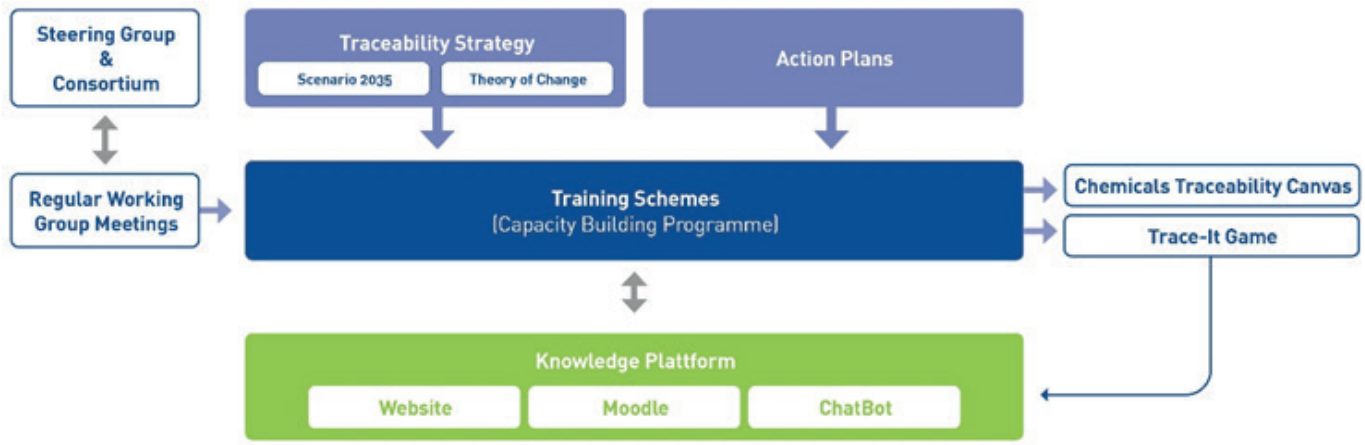

Fig. 1) Overall Structure of the Training Scheme Concept and Development

1.3. General Decision to Merge Value Chain Perspectives

Throughout the ECHT project the value chains of cotton textile apparel and polyester textile apparel have been addressed and discussed as separate entities. This was due to the fact that these value chains differ tremendously regarding their specific structures and technologies involved.

Cotton is a natural product that is grown and harvested, before being spun and treated, both mechanically and chemically. At the end of the product life, cotton fibres can be recycled mechanically and eventually spun to create new yarn. However, as the fibres decrease in length, this process can be replicated only a limited number of times. Some companies also focus on biological recycling, meaning to let the cotton fibre degrade in the same way vegetables would. Usually, cotton supply chains are long, complex and spread all over the globe. In contrast to this, polyester is a chemical product. Under appropriate conditions, certain types of polyester can be fully recycled indefinitely.

At the beginning of the project, while drafting the idea of the training schemes, the consortium assumed that these differences make it necessary to create two separate lines of training schemes in order to focus on the specific attributes and challenges of each value chain. After several discussions within the working group, consortium meetings and bilaterally with certain experts, the group came to the conclusion that with regards to chemicals traceability, the challenges, approaches and tools do not differ that much between the two material streams. Instead, in both cases chemicals must be recorded and transmitted along the value chains across several tiers. By default, this includes challenges regarding communication, intellectual property and data management. While in some cases this might be more complex and challenging, the differences do not originate primarily from the type of material itself, but rather the length of the value chain, the technological and educational standards in the third countries involved and other factors that can be applied to both raw materials.

Therefore, the working group decided to create one single training scheme for both materials as a series of three workshops.

2. Training Scheme Concept

2.1. Target Groups

This capacity building format is mainly tailored to address the needs and requirements of SMEs in the global textile apparel value chains. Being the focused region for funding by the Interreg programme, North-West Europe comprises a substantial number of SMEs and micros in the field of textile apparel. Therefore, the main target groups are companies facing (chemical) traceability challenges in this sector such as garment and fabric producers, IT service providers, brands and retailers as well as collectors and recyclers. However, much of the content and tools are also relevant and suitable for larger enterprises and even NGOs and policy actors dealing with challenges and solutions in the context of chemicals traceability. Larger enterprises can both benefit from the programme and outputs as well as serve as case studies to foster new insights regarding the general topic of chemicals traceability. In the sense of "collaborative competitiveness", industry actors can potentially make use of a synergistical learning process.

2.2. Intended Learning Outcome

The intended learning outcome of this capacity building workshop series can be divided into the following three aspects:

a. Mindset and awareness

To many of the SMEs in the textile apparel value chains, traceability of chemicals appears to be a costly burden derived from regulatory necessity. While indeed traceability requires investments and is indeed time consuming, these training schemes partly aim at changing this mindset by illustrating (1) that traceability is doable even for small enterprises and (2) that it poses potential economic benefits and can even strengthen and create (new) business models.

b. Specific tools, approaches and processes

To support actors of the textile apparel value chains to implement traceability, specific tools, approaches and processes are presented and explained. This largely focuses on conceptual aspects of the implementation and less on technological issues. While examples of specific technologies (e.g. data carriers and IT services) might be presented, they are merely used to illustrate the overall approach.

In line with this, tools and templates are disseminated that shall support companies while implementing, reflecting on and evaluating their efforts for chemicals traceability over the entire process.

c. Networking and synergies

As this capacity building programme is primarily workshop-based, ample opportunities for networking are given to allow participants to exploit synergies and form alliances to facilitate chemicals traceability.

2.3. Formats, Content and Material

Overall, this capacity building programme makes use of a mix of expert input from academia, industry, policy-making and NGOs as well as interactive co-creative working phases. During input formats, knowledge from case studies and best practises is shared as well as general information on regulatory developments and technological and conceptual solutions.

The capacity building programme is divided into three related, interdependent workshops. Participants are allowed to join the series also after the first or even second event and are provided with access to the recordings in advance to participation in order to prepare and accumulate previously disseminated knowledge.

Tool #1: Chemicals Traceability Canvas

Implementing chemicals traceability along global value chains is a complex process requiring a thorough understanding of organisational and supply chain processes. The "Chemicals Traceability Canvas for Textiles" (CTC) offers a structured framework to outline key stages and fields in implementing chemicals traceability in textile value chains. Based on the well-established Business Model Canvas, it is divided into four sub-canvases that allow for deeper elaboration of critical aspects.

Like the Business Model Canvas, the CTC uses a conceptual, graphical structure, but adds refined elements and specific questions to raise awareness and guide (design) processes. It supports implementation in an iterative, exploratory manner, offering a quick, multi-perspective overview of relevant topics.

Traceability cannot be implemented by a single department or expert; it requires interdisciplinary cooperation and tailored approaches for each organisation and value chain. The CTC does not solve all challenges, but helps organisations/teams take first steps, identify (knowledge) gaps, and determine where expert input is needed. It is not a scientific analysis tool, but rather an orientation aid that ensures important issues are considered in the process.
Implementing chemicals traceability requires an interdisciplinary systems thinking approach, as teams may face conflicting targets that complicate planning. The canvas is not a strict formula, but an exploratory tool to analyse, conceptualise, and guide the process at any stage. Boxes and questions can be addressed in any order; not all apply to every organisation, but they help raise awareness and identify knowledge gaps.

As a simple poster with boxes, the canvas can be filled in individually or in workshops, using notes, sketches, or text. Workshops benefit from combining the canvas with design thinking methods, encouraging open-minded, even unconventional ideas. Facilitators should analyse results afterwards to preserve insights. Relations and interdependencies should be visualised with arrows or other markers to foster systems thinking. The canvas serves as a starting point for implementation, feeding new insights back into the process.

The canvas consists of four sheets:

Status Quo – Starting Points: Basic organisational data, product, actors, and regulatory context

Status Quo – Objectives & Vision: Organisational and value chain goals, KPIs, and business model

Status Quo – Current Practice & Gaps: Data input and management, plus barriers and gaps

Future Outlook – Strategies & Processes: People, data, and technology, considered individually before interdependencies

The canvas is iterative, relevant to different organisations at different stages, and helps revisit goals and gaps over time. It is both exploratory and evaluative. Users may adapt it for specific needs and are encouraged to share feedback for further development. For more information, have a look at the related Workbook for the Chemicals Traceability Canvas.

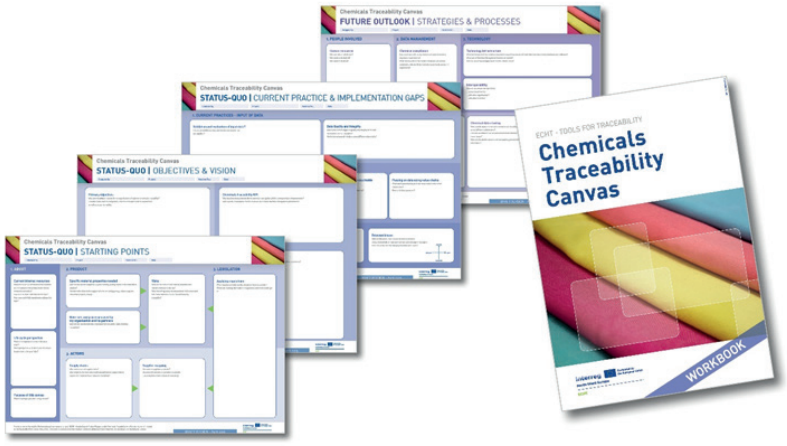

Fig. 2) Chemicals Traceability Canvas

Tool #2: Trace-It Game

"Trace-It" is a collaborative board game that has been co-designed by a working group of the ECHT project. It aims at increasing awareness and building up capacity regarding the implementation of chemicals traceability in organisations. In this process, industry actors shared comprehensive knowledge and insider know-how to improve the usability and impact of the game.

Starting from a literature review on simulation games a co-creative process was initiated that fostered several approaches to impart knowledge and know-how on chemicals traceability. After several iterations with the project team and external academic experts, the concept of this game was developed and further elaborated in a series of workshops and asynchronous working phases with the authors of this paper.

"Trace-It" was created to build capacity in the textile value chains with a specific focus on SMEs. In line with this, one of the core target groups are representatives of these SMEs that are working in textile value chains (e.g. fabric manufacturer, garment manufacturer, brands and retailers). However, the game is also suitable and has proven informative to other actors dealing with chemicals traceability in textile value chains and even beyond this sector (e.g. NGOs, governmental agencies, large-scale enterprises). The game can be played both in transdisciplinary workshops with participants from companies, NGOs and other actors as well as inside companies in interdisciplinary teams.

Playing the game shall both sensitise for the topic and necessity of chemicals traceability as well as educate on approaches and tools on how to implement traceability in the organisation. By doing so, knowledge gaps and open questions can become visible and be address in the future process.

We do acknowledge that implementing chemicals traceability is a complex, long-term and iterative process that by no means can be completed in the course of playing the game. Rather, this game can be a starting point for internal discussions and strategy development as well as testing current traceability practises.

Fig. 3) Illustration of the "Trace-It" game during gameplay

3. Training Schemes Procedure

Workshop #1 (on-site)

The first workshop is planned as a half-day on-site workshop to set the stage and get familiar with the ECHT Knowledge Platform and the ECHT "Chemicals Traceability Canvas". During the first round of workshops, the first workshop was used to iterate and further develop the ECHT "Chemicals Traceability Canvas". In the long run, the first workshop might focus more on getting to know this tool and potentially applying it already in a first test round. The workshop is split in two halves: The first part covers relevant content from industry, regulatory framework, traceability and the Knowledge Platform in short informative input presentations[1]. The second half focusses on the aforementioned ECHT "Chemicals Traceability Canvas". It addresses its application and collects ideas to elaborate further on it (For the specific agenda of workshop #1 from March 26th 2025, see appendix 1).

Workshop #2 (online)

The second workshop is a 2-h online workshop that mainly covers input presentations from various actors. Apart from general information on chemicals traceability, IT services are presented and two (or more) SMEs outline their lessons learned after applying the ECHT "Chemical Traceability Canvas".

In a final slot, participants will get the chance to network and exchange thoughts and insights. While there are several possibilities to conduct this phase, one easy-to-implement method is to have pairs of participants randomly meet in breakout-rooms for several minutes and repeat this process several times with different pairings.

This workshop is planned online, as it represents the linking part between workshop 1 and 3 by focussing on expanding participants knowledge on relevant aspects of traceability – in particular from a practical point of view. After this, participants have time to familiarise themselves with the input before meeting again in person for the final and more comprehensive interactive workshop on-site. Alternating between online and on-site formats eventually increases the likelihood of participants to adhere to the overall programme and therefore reduces the risk of dropouts (For the specific agenda of workshop #1 from May 15th 2025, see appendix 2).

Workshop #3 (on-site)

The third workshop represents the most comprehensive part of the training scheme in form of a full-day on-site workshop. It is divided into short expert input sessions and an intensive simulation gameplay with the ECHT "Trace-It" game.

The first set of expert input is implemented by a panel discussion with both policy and industry actors. This set of input presentations is largely informed by a preparatory phase, in which the panellists receive impulse questions to guide their input and facilitate a discussion after their presentations. In the course of changing regulations, technologies and environmental challenges, these questions need to be prepared and updated individually by the facilitators of the respective training scheme. After this initial input the simulation game is presented and explained followed by the first playing phase.

After the lunch break a second input phase consists of additional industry input again followed by a playing phase. This phase is not mandatory but offers additional room to deepen the participants knowledge and might prepare the subsequent game phase with more substantial information. The simulation game – called "Trace-It" – is an immersive role-play-based board game in which participants take on the role of specific departments in one mutual organisation. In a collaborative way, all players jointly try to implement traceability in their fictional organisation while completing several tasks along the way. Gamification elements such as game points and coincidental tasks are used to increase engagement and foster motivation by the participants[2]. The workshop is closed by an evaluative discussion with the plenum.

This workshop can also be conducted partly in a hybrid form. Specifically, the first phase, including the expert input, can be streamed online to allow additional participants to join this process. The actual interactive simulation game should be played on-site and would need great adaptation in order to be useful and engaging in an online set-up (For the specific agenda of workshop #1 from June 18 15th 2025, see appendix 3).

3. Discussion on Application and Transferability

This concept of the ECHT training scheme is meant to be a starting point to provide learning experiences to actors in the global textile apparel value chains regarding chemicals traceability. As such, new content will be developed, regulatory requirements will change and new technology will be developed. Therefore, this workshop series should be adjusted to fit the state of the art and address the actual needs and requirements of its participants.

Overall, the content, tools and approaches developed and used in these training schemes can be transferred to other sectors and materials. However, this might make further adjustments necessary.

After conducting this training scheme for the first time, we recommend to be mindful of the respective target groups and group sizes. Interactive formats require a balanced and manageable size of participants. Furthermore, especially regarding the simulation game, we recommend appropriate locations that support an engaging and creative atmosphere to make the most out of this format.

[1] **https://skilltech.tube/c/echt/videos?s=1**

[2] For a more detailed description of the game play see the "Trace-It" game manual document.

WS #1 **Mindset & Background**				
			Learning Goals	sensitise for the topic learn background knowledge generate informed questions and become involved
			Date / Time	4-5h
			Location	Hybrid or On-Site
			Participants	50-55 Participants
			Educational Material	Knowledge Platform (digital), Manuals / Work Sheets
Begin	End	Time	Programm	Content
10:00	10:10	00:10	**Welcome… / Ice-Breaker**	People position themselves - "Where am I in this topic"
10:10	10:20	00:10	**Input from ECHT project / Insights**	Influencing factors Szenario-Story Theory of Change
10:20	10:40	00:20	**Input on Textile Value Chains**	Presentation insights from Status-quo report (incl. system modelling)
10:40	10:55	00:15	***Short Break***	
10:55	11:15	00:20	**Regulatory Context**	1. Regulatory Context (especially EU perspective) 2. Challenges of Traceability
11:15	11:25	00:10	**Feasibility and business case of Traceability**	Incentives and impediments, Business models, etc.
11:25	11:35	00:10	**Step-by-step Guide on implementing Traceab**	example from PUMA
11:35	11:50	00:15	**Knowledge Platform**	Introduction, Structure, Functions, Content, etc. (incl. 5min Q&A)
11:50	12:00	00:10	**Canvas and Cards**	Introduction of the tools set…
12:00	12:30	00:30	***Lunch***	
12:30	12:45	00:15	***Buffer***	
12:45	13:45	01:00	**Joint Learning Process**	Application and Testing of Chemicals Traceability Canvas
13:45	14:15	00:30	**Consolidation in plenum (both groups)**	Collect and discuss insights
14:15	14:30	00:15	**Closing**	Closig remarks (information on next workshops)

WS #2 ONLINE Best Practise and Use Cases		
	Learning Goal	Get inspired by examples from the industry Understand business modells and strategies
	Time	120 minutes
	Location	ONLINE
	Participants	50-55 Participants
	Educational Material	Knowledge Platform, Chemicals Traceability Canvas

Begin	End	Time	Programm	Content
14:00	14:10	00:10	**Welcome / Introduction**	
14:10	14:50	00:40	**Presentations of up to 4 case studies**	(i.a. on experiences using the Chemicals Traceability Canvas)
14:50	15:20	00:30	**Panel Discussion**	Questions from plenum
15:20	15:40	00:20	**Speed-Dating...? 3x 5min**	Networking -> Breakout-Sessions in pairs (randomly)
15:40	15:55	00:15	**Closing remark**	Closig remarks (information on next workshop)

JOINT WS #3 **Simulation Game**			Learning Goal	Experience potentials and challenges Change of perspective
			Date / Time	Full day
			Location	On-site
			Participants	50-55 Participants
			Educational Material	Game material, Knowledge Platform, Chatbot, Chemicals Traceability Canvas
			Programm	Content
09:30	09:40	00:10	**Welcome**	
09:40	10:10	00:30	**Presentations**	Input from NGOs, Policy Makers, Industry
10:10	10:40	00:30	**Introduction to simulation games**	
10:40	12:40	02:00	**Simulation Game - Phase 1**	###
12:40	13:40	01:00	***Lunch***	
13:40	13:55	00:15	***Buffer***	
13:55	14:25	00:30	**Presentations**	Input from NGOs, Policy Makers, Industry
13:55	15:25	01:30	**Simulation Game - Phase 2**	###
15:25	15:45	00:20	**Coffee Break**	
15:45	16:45	01:00	**Simulation Game - Ending**	###
16:45	17:15	00:30	**Collection of Insights**	format tbd. (e.g. world café)
16:45	17:15	00:30	**Discussion in plenum**	
17:15	17:30	00:15	**Closing remark**	What's next / How to support the project…
17:30	*19:00*	*01:30*	*optinal: Reception*	