



Project Newsletter

2. APRIL 2013

ISSUE 1, 2013

„In SAVEmed self-verification security systems will be developed. These are highly relevant for a secure track-and-trace system for the whole supply chain of a variety of medical products (e.g. solid dosage forms, pharmaceutical container, medical implants, and sterile pouches) . We are:

- Defining targets and requirements
- Creating microstructures
- Producing microstructures
- Developing production process for microstructures
- Creating reading device for microstructures
- Analysis of microstructures
- Analysis of criminal strategies regarding counterfeit pharmaceuticals
- Creating Awareness

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Dear Reader

This newsletter is intended to give you brief update on what is currently going on in the SAVEmed Project.

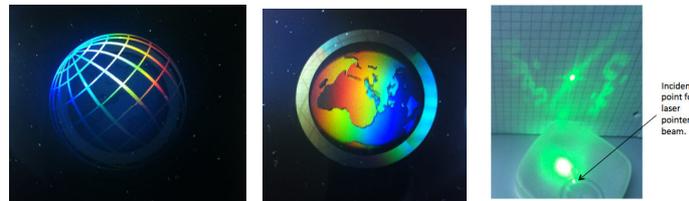
The Project Consortium has been very busy during the past several months. Consequently, there are quite a few new achievements which we would like to share with you. Nevertheless, SAVEmed is a security related project and therefore the contents of this newsletter may lack detail that you might be interested in. If this is indeed the case, then we do encourage you to contact the SAVEmed coordinator, Nano 4 U GmbH, so that we can fulfill any further information requirements while safeguarding SAVEmed's project status.

Achievements

Based on the results of the first period the following results were achieved in recent months:

Creating microstructures

As one new optical effect we created partially hidden holograms:



The pictures above show a hologram with continents based on light diffraction.

Different images can be seen at different viewing orientation (left and middle) and hidden details are visible at specific points using laser pointer (picture on the right side). These structures can be created in steel tools and applied to various products like foils or injection molded caps.

Impressum

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Project Partners

NANO · 4 · U

csem centre suisse d'électronique
et de microtechnique

KUTTERER MAUER AG

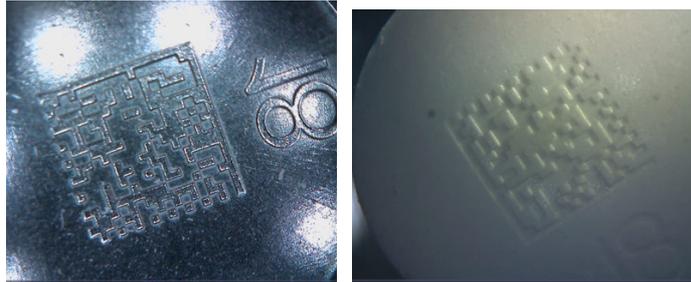
SteriPack



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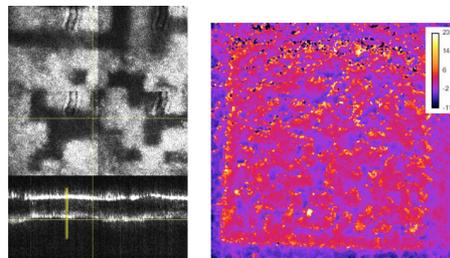
Manufacturing of microstructures

The microstructures can be impressed on pharma pills and the production parameters have now been developed to ensure clear and distinct codes even after using the tools after many cycles. The left photo shows the steel tool with a data matrix code after producing 1200 tablets. No obvious structure breakage and no obvious powder sticking can be seen on the stamp afterwards. The right photo shows a pill with the data matrix code. It can be read even after tumbling. Further long term experiments are planned or in progress respectively.



Creating a reading device

Tablets are normally coated. Therefore the question arises if the code can be read below the tablet coating. Measurements done in SAVEmed project show that it is possible to reliably read codes through clear coatings using an optical coherence tomography microscope (left).



In some cases the surface topology of an opaque coating can follow the microstructure of the code beneath in such a way that the code might be hidden to the human eye but readable by the pOCT (right).

Analysis of microstructures

Another area of research in SAVEmed is the encoding, writing, scanning and verification of datamatrix codes in the embossed or molded product. It has been shown that it is possible to read the code and decode the information from foils or tablets.

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A datamatrix code can be decoded to the original information, such as date, batch, or production site.

Analysis of criminal strategies

We did an analysis of the supply chain for counterfeit medicines and of the typical supply routes via the internet. This led to initial recommendations for action strategies in these areas.

Roundtable discussions between pharmaceutical companies and relevant authorities in selected EU countries were done, as part of pilot studies to improve communication between the different parties involved. Several pilot studies have started.

News-Ticker

Trade Fair Participation

After a very positive mid-term review of the SAVEmed Project results in October 2012 by an external reviewer the EU (Directorate General for Enterprise, DG ENTR.) invited the SAVEmed Project to present its achievements at the HOMSEC security and defence industry trade fair (http://www.homsec.es/index.cfm?id_idioma=EN), which took place on 12 – 15 March 2013 in Madrid, Spain. A picture of the SAVEmed booth is shown below.



Upon invitation by DG ENTR. the project also participated in a podium discussion where results could be presented to the specifically invited audience; lively discussions led to numerous possible leads for future interaction with constituencies potentially interested in a future use and application of SAVEmed results.

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Next regular SAVEmed Project – Meeting in Ireland

The next project meeting will take place at the premises of the project partner Steripack in Ireland on April 10th, 2013.



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