

SMART LABEL

PATENTED TECHNOLOGY

OPEN MONITOR

We are committed to improving safety and quality of products along the entire value chain to the individual product handling of the consumer.

For this purpose, we develop intelligent labels, so-called smart labels with sensory properties. These apply as part of the packaging the communicative interface between product and user.

Our patented smart label in application and technology is about to enter the market in the food sector. This is planned for 2023 with leading supermarket chains.



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- ✓ More than 10 years of smart label experience
- ✓ Many years of expertise in the field of food waste and packaging waste reduction

SMART LABEL TECHNOLOGY AT A GLANCE

- As thin as a sticker, an aluminium window opens and releases the information behind it depending on time, temperature and humidity
- Self-powered processor without battery & food-safe technology
- Irreversible, mechanically non-influenceable functional sequence

KEY FACTS SMART LABEL

- ✓ Locations in Münster R&D (Lab) and in Longuich (Marketing & Sales)
- ✓ The team: 2 chemists with doctorates, the inventing professor as consultant and sales and marketing
- ✓ Technology patents in all important key markets
- ✓ Application patents in Europe



PROGRESS

The technology was transferred to roll production with a daily output per machine of 5 million labels, and the target production price of approx. 1 cent for a 3-digit million label achieved.

U4FOOD LABEL

MARKET ENTRY FOOD SECTOR

CURRENT SITUATION

- 2nd HY 2023: Test markets of the opening time control followed by the electronic best-before date
- DIN Spec Project approval by the German Institute for Standardisation to define appropriate market standards
- Direct contacts with the German government on legislative options on the topic „Food loss and waste“



THE SMART SOLUTION TO AVOID FOOD WASTE AND PACKAGING WASTE



CONTROLLED FRESHNESS FOR CHILLED FOOD



MAINTAINING THE BEST POSSIBLE MANUFACTURER QUALITY OF THE PRODUCT



REDUCTION OF THE COMMUNICATIVE INTERFACE DIRECTLY TO THE RECEIVER / USER



QUALITY ASSURANCE IN INSECURE ENVIRONMENTAL CONDITIONS

RECOMMENDATION FOR CONSUMPTION & BBD: INDEPENDENT DYNAMIC EXTENSION OR SHORTENING, DEPENDING ON THE COOLING SITUATION

WHAT HAPPENS BY USING THE LABEL

- ✓ Activation e.g. by product moisture, during dispensing, by sealing label or by peel-off tab
- ✓ Sensory independently indicated consumption or shelf life, with dynamic time adjustment depending on refrigeration conditions
- ✓ Extension of the opening time / best-before date cooling by several days possible by monitoring the cold chain

MORE INFO IN THE SEPARATE TEASER (TEST MARKET FOOD PDF)



COMPETITION SMART LABEL

There is no direct competition for such a technology application: integrative, thinner, more flexible, cost-effective and non-manipulable labels with a wide range of opening options.

QUOTE

„SMART STICKER
ANIMATES TO A
SUSTAINABLE
CONSUMPTION.“
WRITES THE
FOOD NEWSPAPER
/ LEBENSMITTEL
ZEITUNG



The uniqueness is based on the individual control functions of the aluminium layer of the viewing window or – this function is independent or is influenced by environmental conditions. Additionally the label can even open pictures behind the aluminium window.

USE IN OTHER INDUSTRIES: PHARMACEUTICAL & LOGISTICS, SECURITY PRINTING, PROMOTION, PRODUCT SAFETY, ETC.

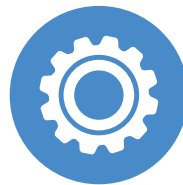
MARKET POTENTIAL FOR THE TEST MARKETS AND MARKET ENTRY IN THE FOOD SECTOR

We consider unit sales in the billion range p.a. possible within the first three years. On demand we will send you our „Potential Analysis“.



CONCEPTUAL

- Interactive connection to the user / recipient
- Sustainable use of products
- Establishing new standards
- Differentiation potential for the retail



PRODUCTION TECHNOLOGY

- Scalability is ensured
- Easy dispensing with standard labelling machines up to integration in the packaging
- Technological advantage by uniqueness

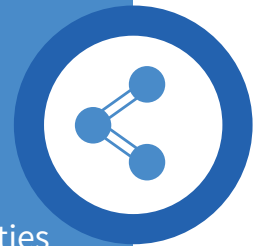


ECONOMIC

- New revenues for users
- Revolutionary product innovations
- Brand change of target groups
- 1 machine can produce over 1 billion labels per year

FINANCING REQUIREMENTS

- ✓ Market entry in the food sector incl. market research and establishment of the U4FOOD brand
- ✓ Transfer of the technology to other sectors
- ✓ Complete out-licensing pharma / chemistry and licensing in other countries
- ✓ Further development of future technologies, e.g. determination of the cause of cold chain interruption
- ✓ Adaptation of the technology to customer requirements in the form of variable running times, temperatures or humidities



PROOF OF CONCEPT



The Smart Label technology has already been used in the promotion several times in 2018. The proof of concept in the food sector is due in 2023 for market-leading retail groups.

INVESTMENT

The investment sum is between:
500.000 € - 10.000.000 €

Different packages are possible from 5 % to medium-term majority shareholder with strategic involvement.

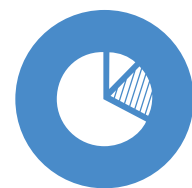
VERY BROADLY APPLICABLE

Print media: 4 in 1 multiple messages through time-shifted release of information

Quality assurance: cold chains or moisture monitoring across the entire logistics chain

Logistics: On / Off or switching of RFID labels according to humidity or temperature events

Plagiarism protection: e.g. oxidising away holograms and opening of new information



UP TO
25,01%
FIRST SHARE