PAPER DISPLAY for Health Care Industry
A Unique Platform Technology

Paper-e® allows printable electronic circuits on paper.

Patent applications pending + International Trademark

PT 103998 | PCT/IB2009/000565
PT 103999 | PCT/IB2009/005053
... With a Unique Combination of Features

- Low cost products
- Easy to incorporate in the manufacturing processes
- Flexible
- Lightweight
- Biodegradable

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Fast Growth of Printed Electronics

Market Growth ≈ 35%

Source - IDTechEx
As a platform technology, Paper-e will have several eventual applications...

- Disposable Electronic Circuits
- Chipless (RFID)
- Flexible Paper Displays
- Electronic Marketing Products
- Interactive Surfaces
- Smart Packaging for Healthcare
The Non-Compliance Problem!

.: In developed countries, only about **50%** of patients take their medicines as prescribed.


.: **Deaths** related to non-compliance are

* 200 000 Europe  
  (DSM TCG – the OtCM™ Company -2008)
* 125 000 USA

.: Yearly non-compliance + hospitalization + medical **costs**:  
  (DSM TCG – the OtCM™ Company -2008)
* Europe - €102k Million
* USA – €145k Million
Actual Solutions are Ineffective

**PASSIVE**

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**ACTIVE**

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Product: TakeCtrl

Legend
1. On/off button
2. Select digit
3. Down button
4. Up button
5. Warning signal (when counter reaches zero)
6. Hours and minutes displays
7. Posology display

Encapsulation
Buzzer
Display
Logic Control
Battery
Adhesive

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B2B – Fast Track to Mass Adoption

Drugstores

Manual Dispenser

Distributors
Benefits of the Product

Patients
- Increase adherence to medication prescription
- Improving life quality

Drugstores
- Added value service
- Customer loyalty

Insurance companies and government states
- Reducing private and public healthcare costs

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Worldwide Prescribed Drug Sales

Market growth – 5%

Shares 2008

- USA 37%
- Europe 32%
- Japan 10%
- Other 21%

USA 37% and Europe 32% dominate the market.

Source: IMS Health

K Million Units

2008 2009 2010 2011 2012 2013 2014
3.5 4.7

Market sales growth over the years from 2008 to 2014.
Number of Drugstores by Country

Source: Nacional Association of each Country

Total drugstores to sell our product – 253k
Target markets to start:

1st - European countries and Japan (elderly)
2nd – United States (largest market)
Market Size

USA, Europe and Japan
Prescribed drug sales
2.8k Million units

Chronic Diseases
1.2k Million units

People Age
>65
800 Million units

Product price:
€ 0.50

Our Market
1.7k Million Packages
€850 Million

Source: IMS Health + our estimation
Technology Roadmap

Products:
1st → Paper display
2nd → RFID Tag

Funding Requirement:
€1.8M
Revenues at maturity: €23 Million
EBITDA at maturity: €11 Million
Funding Required: €1.8 Million

NPV: €10 Million
NPV (tv): €54 Million
IIR: 88%
Thank You!

Paper Displays for Health Care Industry

You will never forget!

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