RFiD
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SEPTEMBER 30 - OCTOBER 1, 2020

Deter, Detect, and Diagnose Damage in Your Supply Chain With RFID

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PRESENTED BY

Today's Presenters

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The Challenge....Stop Shipping Damage

$2.3 trillion annually of damage to shipped goods!!!

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Solving the Problem

DETER → The knowledge that cargo is actively being monitored deters bad handling behavior by supply chain participants.
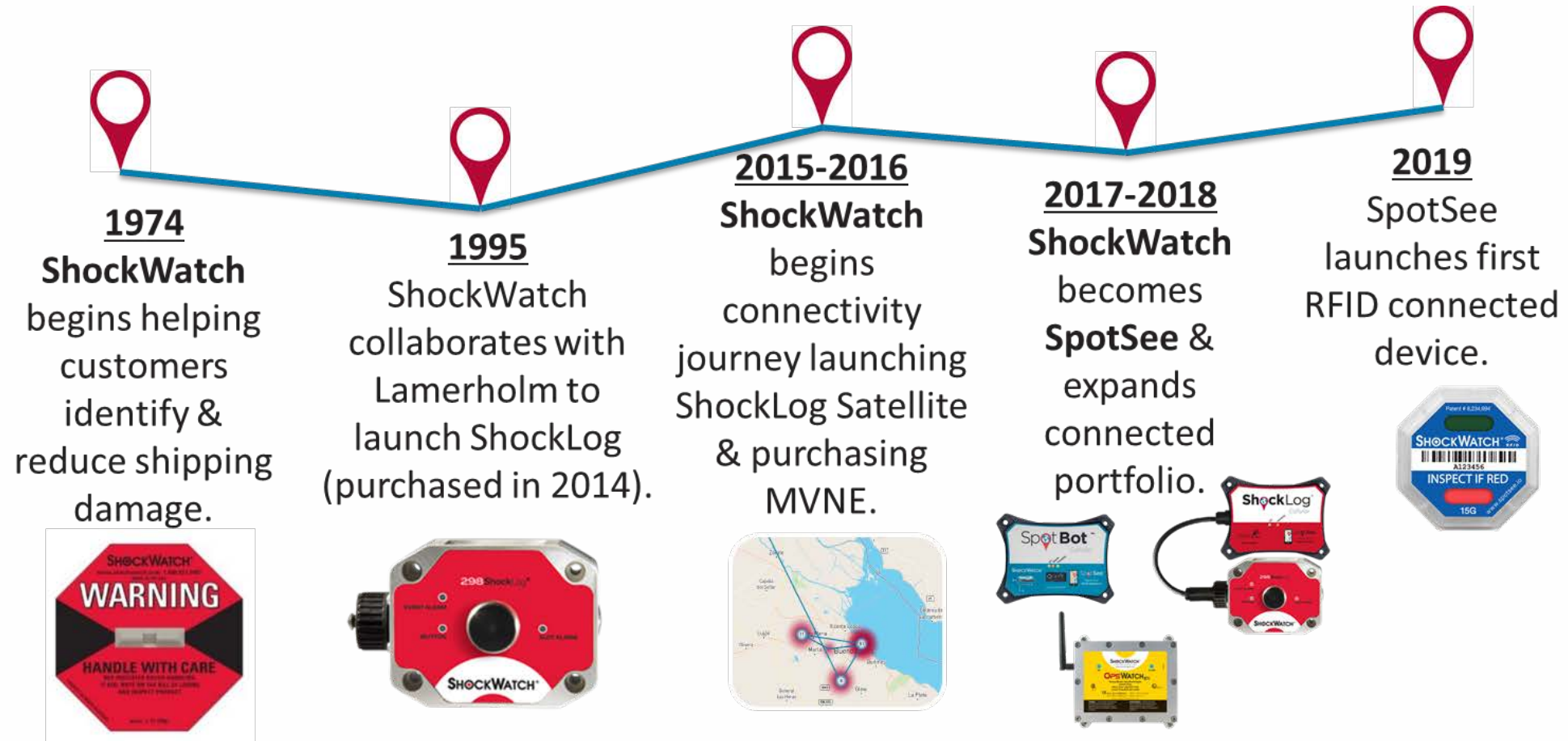
DETECT → Connected monitoring enables real-time damage detection so costs are minimized, and responsible parties are held accountable.

DIAGNOSE → Data and analytics provided by shipment monitoring enable the diagnosis and elimination of pain points within the supply chain.

40-60% typical reduction in damage!

How SpotSee® Has Met The Challenge

1974
ShockWatch begins helping customers identify & reduce shipping damage.

1995
ShockWatch collaborates with Lamerholm to launch ShockLog (purchased in 2014).

2015-2016
ShockWatch begins connectivity journey launching ShockLog Satellite & purchasing MVNE.

2017-2018
ShockWatch becomes **SpotSee** & expands connected portfolio.

2019
SpotSee launches first RFID connected device.

SpotSee's Connected Portfolio

Monitor Shipments in SpotSee or Customer Cloud

Satellite, Cellular, WiFi, Bluetooth

RFID connectivity

Portfolio to Match the Variety of Monitoring Needs

- What conditions cause damage to the asset? (Impact, Tilt, Temp, Humidity, etc.)

- What data is needed to understand the damage?

- Best communication type for the specific supply chain?

- Cost of sensor relative to the product being shipped?

Product & Application Examples

Aerospace

Automotive

Medical Equipment

RFID enables "connected" impact monitoring in new applications!

SpotSee's ShockWatch Indicator

Adding RFID Connectivity to ShockWatch
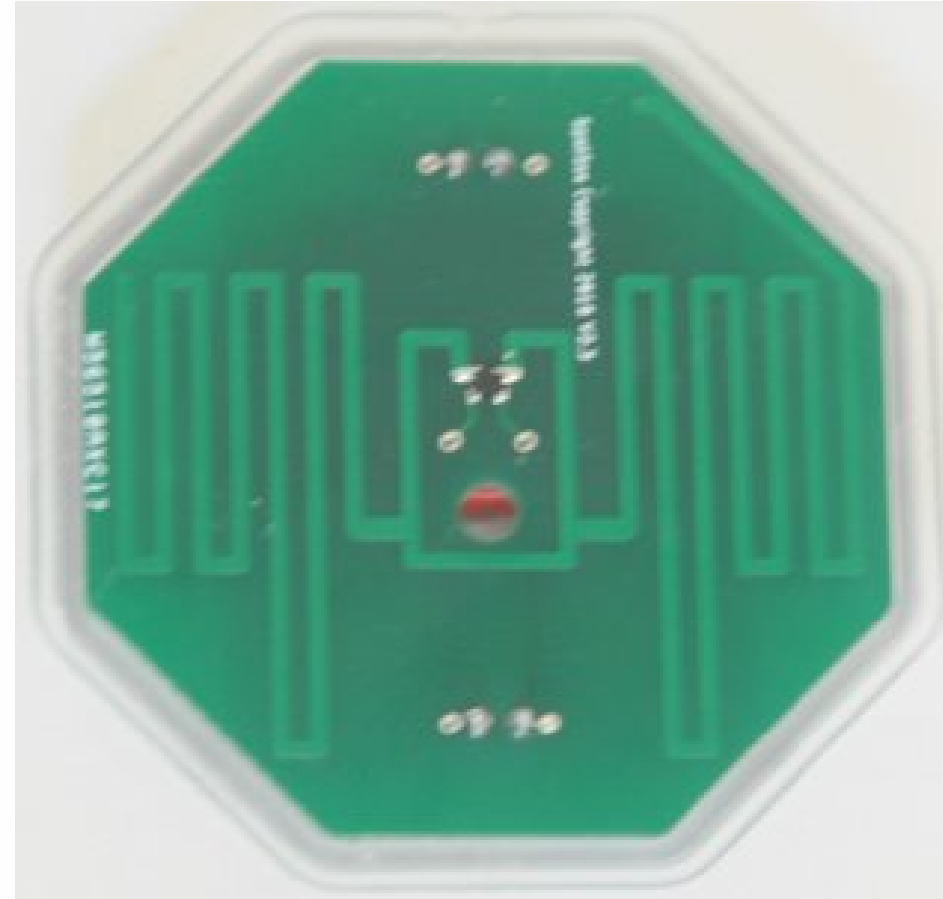
Cost Optimized Connectivity

- **Mechanical** impact sensor utilizes impact event energy
- **Mechanical** impact memory
- Field arming
- Low cost
- Small size
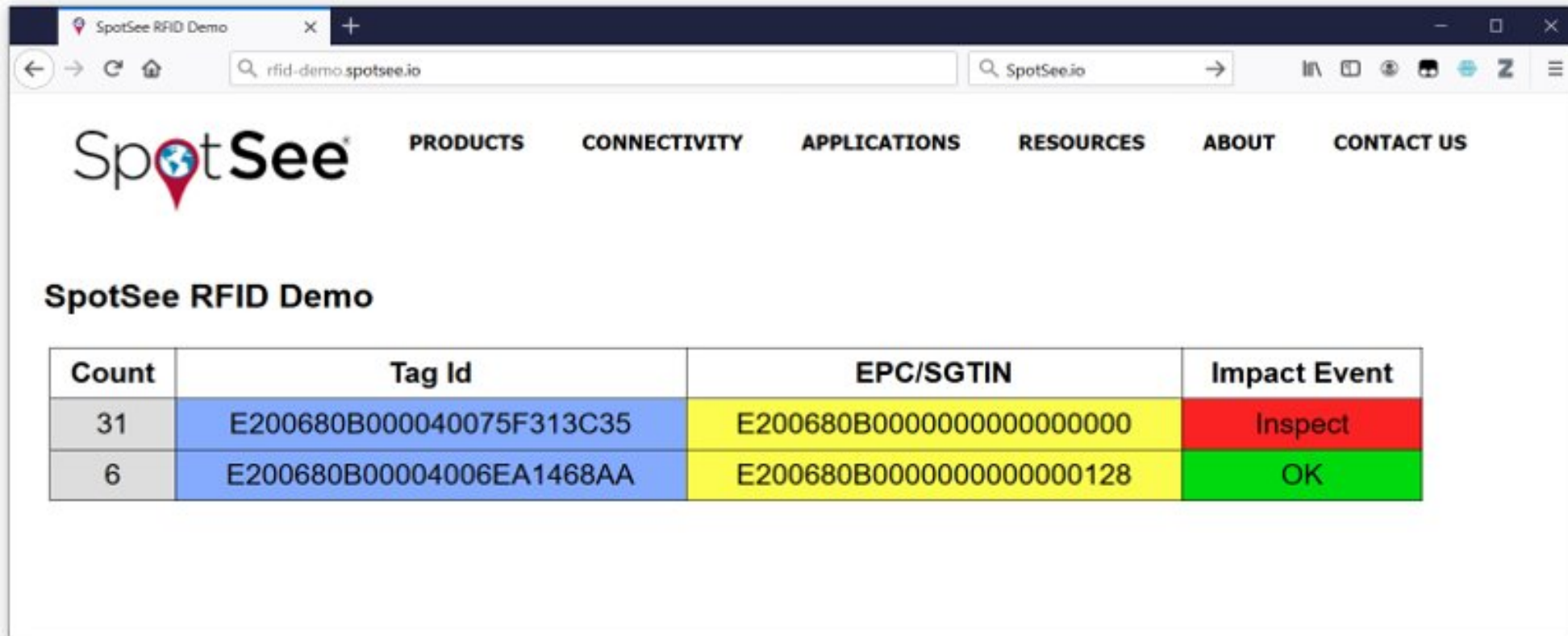- Unlimited shelf life
- Robust temperature behavior

Reading the Impact Status

```
// 1. Select EPC memory bank
x.MemoryBank = MemoryBankEpc;
// 2. Point to bit 512
x.WordPointer = 512/16;
// 3. Say how many words to read
x.WordCount = 1;
// 4. Read the impact memory location
settings.Report.OptimizedReadOps.Add(x);
```

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Reading the Impact Status

SpotSee RFID Demo

Count	Tag Id	EPC/SGTIN	Impact Event
31	E200680B000040075F313C35	E200680B0000000000000000	Inspect
6	E200680B00004006EA1468AA	E200680B0000000000000128	OK

THANK YOU

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