



Strengthening the Vaccine Cold Chain with IoT-based Smart Vaccine Storage Management

IoT-기반 스마트 백신 보관 관리를 통한 백신 콜드 체인 강화

[GT SCIEN / David Friedman / Lead, International Business]

Lab EHS Solutions Provider

회사소개 / LAB EHS 솔루션

LAB EHS 4.0

LABORATORY

With years of laboratory experience, we have the experience and know-how to solve our client's problems, no matter the application

ENVIRONMENT, HEALTH & SAFETY

Researcher health and safety, and environmental protection are the core of our business and drive product development

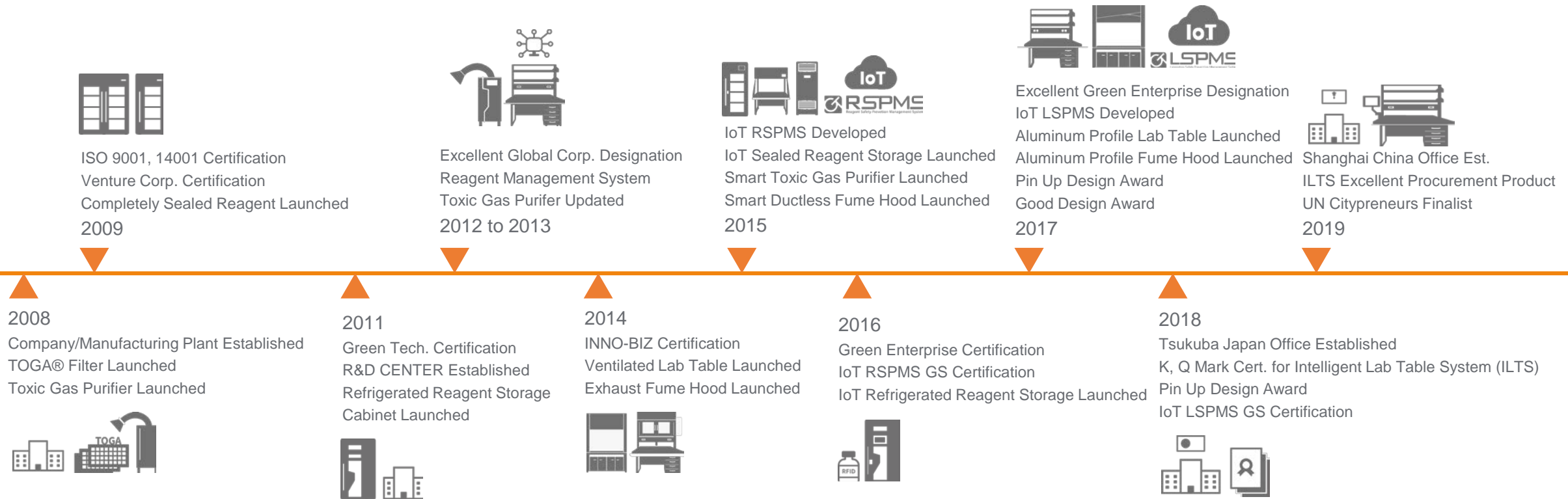
We improve safety by adopting advanced technologies

We are evolving as a company to become An integrated laboratory safety solution provider by utilizing and adapting Industry 4.0 technologies such as IoT and AI

Our History

회사소개 / History

- ✓ 12 years of experience manufacturing excellent quality storage solutions
- ✓ First company world-wide to create laboratory-grade IoT refrigerator



Major Problems in Vaccine Distribution and Storage: Management & Monitoring

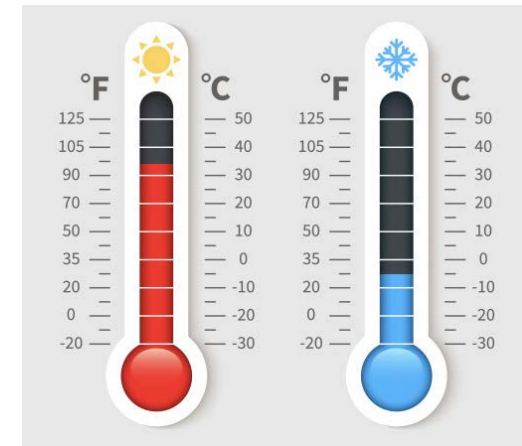
문제 / 백신 유통에 있어 주요 문제점 : 관리 및 모니터링

Temperature Management & Monitoring

Every storage unit should have a Temperature Monitoring Device (TMD) and over 50% of all vaccines are wasted globally due to failure to maintain proper temperature

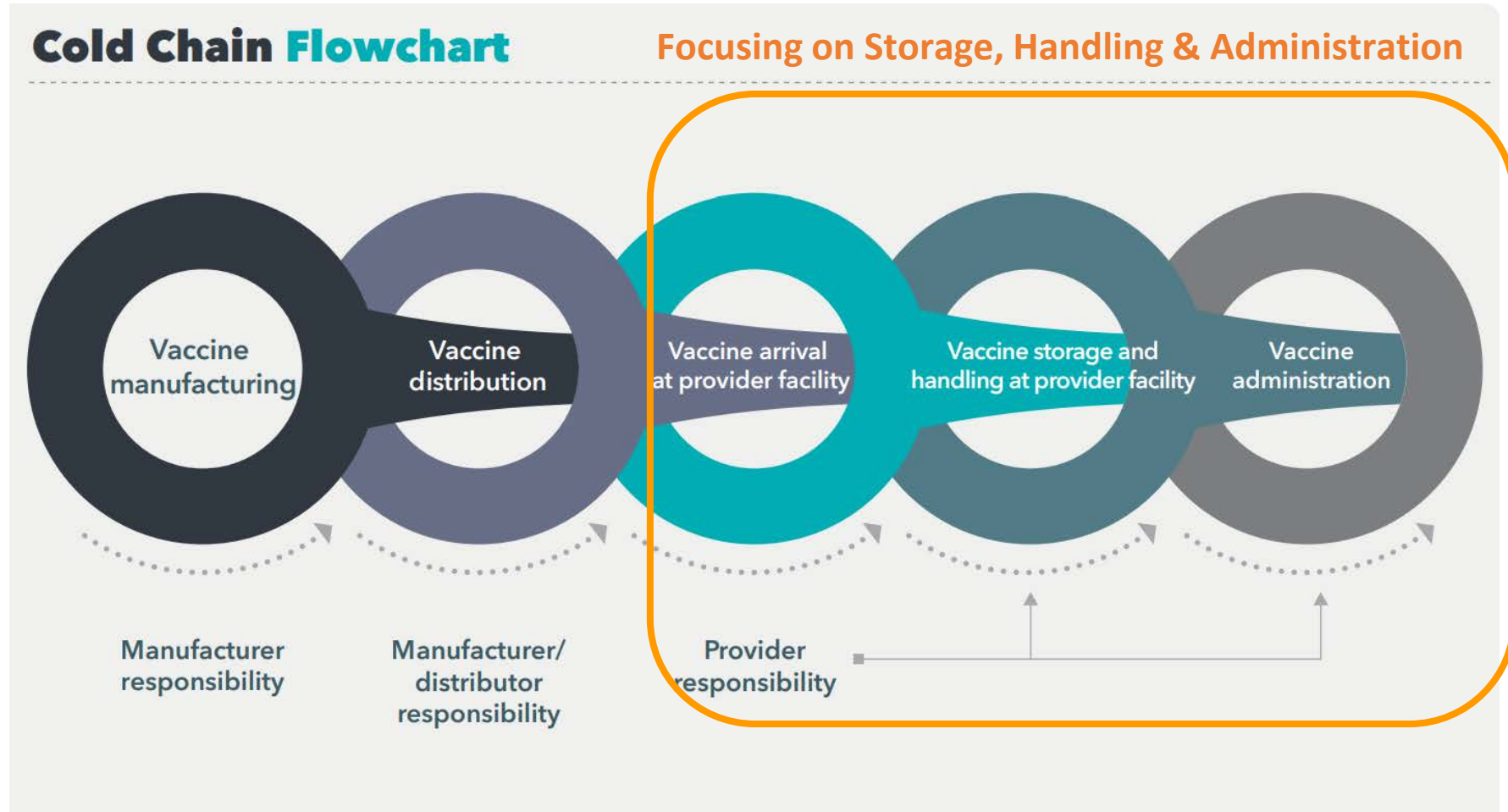
Vaccine Management & Monitoring

Difficulties in vaccine inventory accounting, vaccine ordering, understanding expiration dates & beyond use dates, proper vaccine disposal



Strengthening the end of the Cold Chain: Providing Stability for Providers

솔루션 / 콜드 체인 강화를 위해 공급자에게 안정성 제공



If the cold chain is not maintained, the result is a useless vaccine supply

Introducing the Ultimate Vaccine Refrigerator

솔루션 / 제품 소개



- Patented refrigeration technology provides stable, uniform temperatures
- Equipped with virus-killing filter technology
- Built-in IoT vaccine management system manages vaccine usage, storage, and refrigerator temperatures

The Ultimate Vaccine Refrigerator

Patented Refrigeration Technology: Guaranteed Uniform & Stable Temperatures

기술소개 / 특허 받은 냉매 기술



Patented Refrigeration Technology

- Extremely low (1.0°C) temperature variance
- Air circulation optimized to maintain temperature distribution while filtering air of dust & toxins

Guarantee Patients Receive Effective Vaccines

Cutting Edge IoT Technology

기술소개 / 최첨단 IoT 기술



User & Vaccine Management: RFID-based Real-time Monitoring

- 4W (who, what, where, when) fundamental, systematic management
- Purchase, storage, in/out, disposal comprehensive management

Systematic Safe & Autonomous Vaccine Management



Real-time Temperature Monitoring

- Check temperatures in real-time
- Instant notification if temperatures exceed set levels

Reduce Vaccine Waste & Reduce Vaccination Costs



Optimized User Experience via 7in. LCD Display

- Easy-to-use intuitive UI
- Temperature, expiration date, disposal, in/out, & use history management

Easy Access to Vaccine Management Information

Comprehensive Vaccine Storage Management

기술소개 / 종합적 백신 보관 관리



- ✓ Intuitive GUI for easy on-site management
- ✓ Web/Mobile application suite allows managers to check refrigerator temperature, vaccine expiration dates instantly
- ✓ Information sharing ecosystem: vaccine, refrigerator, web, smartphone

Clean Air Technology

기술소개 / 토가 클린 시스템

Patented Filter Technology



TOGA® Filter

Patent



KR 제0941666호

CN 1345867

US US8845971 B2

IN 276380

TOGA® Clean System: How it Works



Two Stage Virus Purification

- HEPA filter deactivates viruses by destroying the envelope of the virus
- TOGA filter attacks respiratory and electron transmission processes to kill the virus

Clean Air Guaranteed.

Established Domestic / International Network

세일 및 마케팅 / 국제 네트워크



KCDC
Korea Centers for Disease
Control & Prevention





Thank You

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