



Pioneering the Application of Information Technology for a Smarter Planet

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This year, IBM reaches a unique milestone





We have learned three lessons from IBM's history

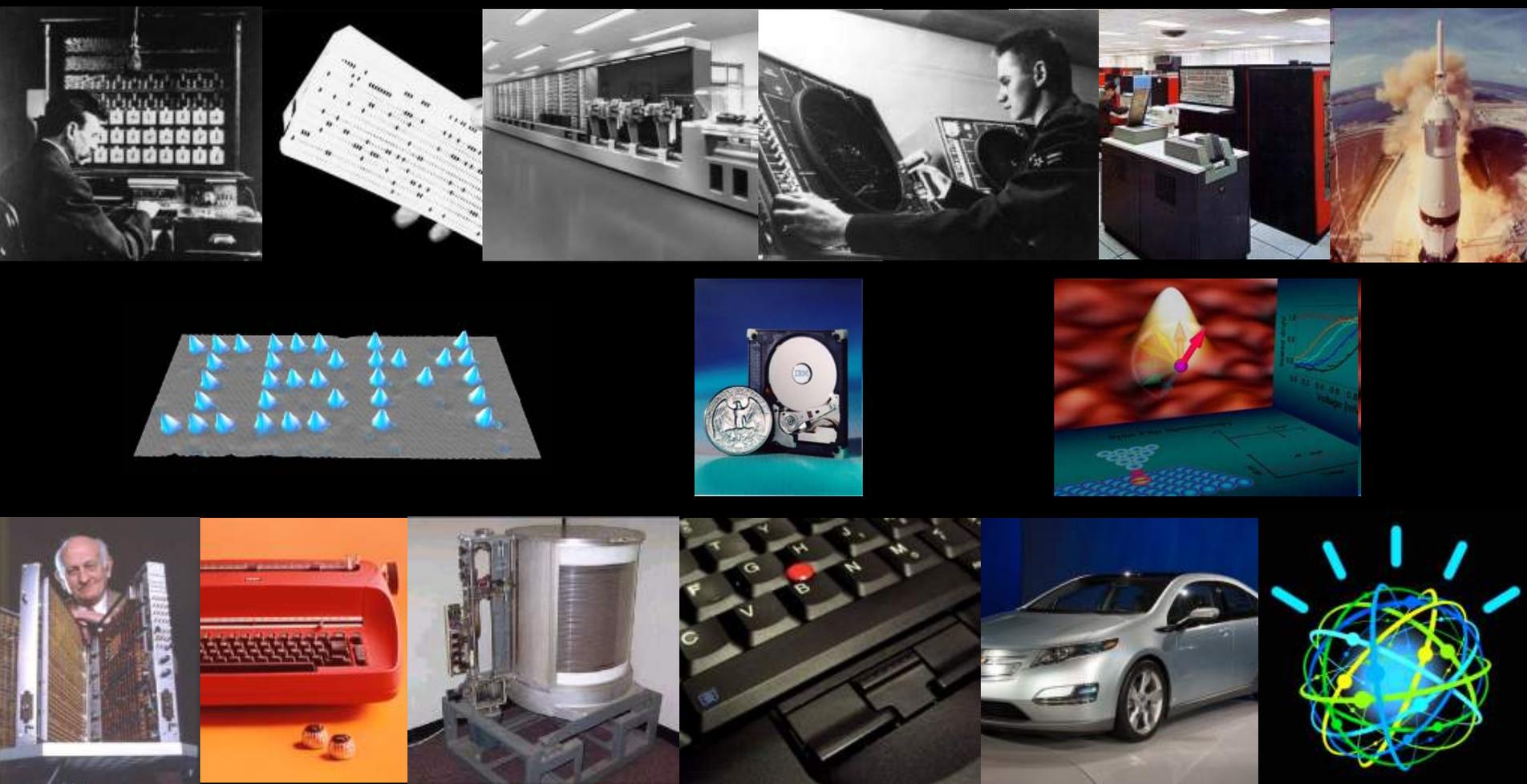
Nature and implications of information technology

A technology-infused planet

A call for leadership



Lesson 1: Information technology has helped shape our world





Over the course of history, information technology has evolved into a science

Sensing

Getting information into computers

Memory

How computers store and access information

Processing

Core speed and capabilities of computers

Logic

Software and languages that let computers do tasks

Connecting

How computers talk to people and machines

Architecture

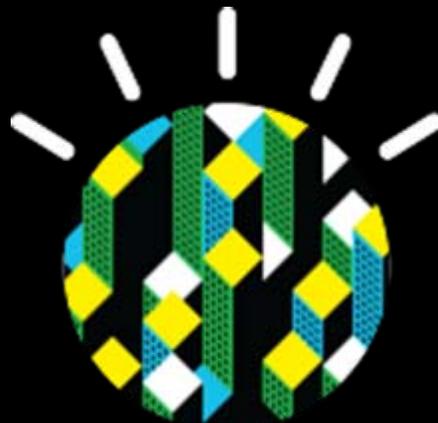
The changing nature of computing

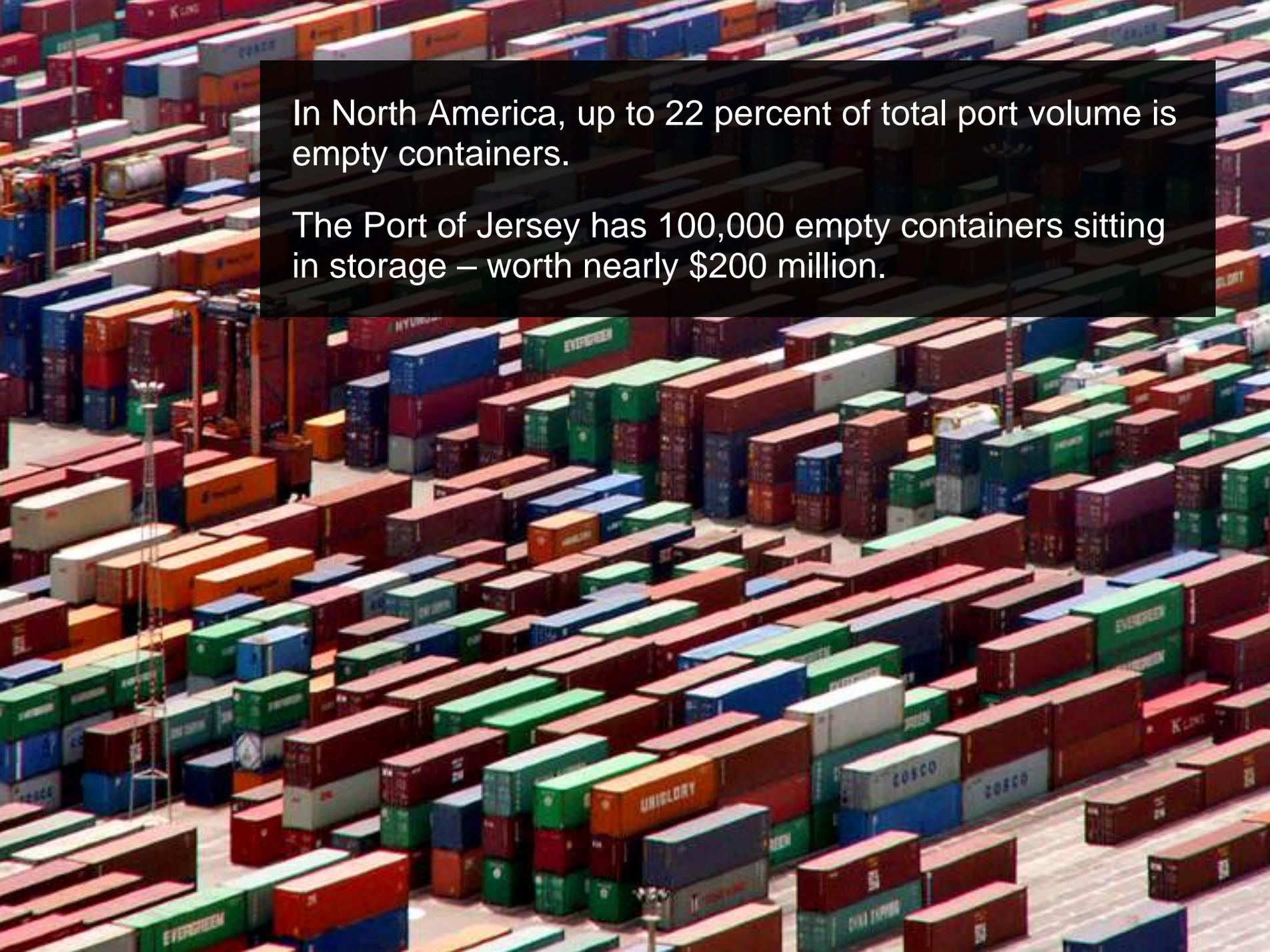




The reason we will all begin to transform our systems, operations, enterprises and personal lives to take advantage of a smart planet isn't just because we can.

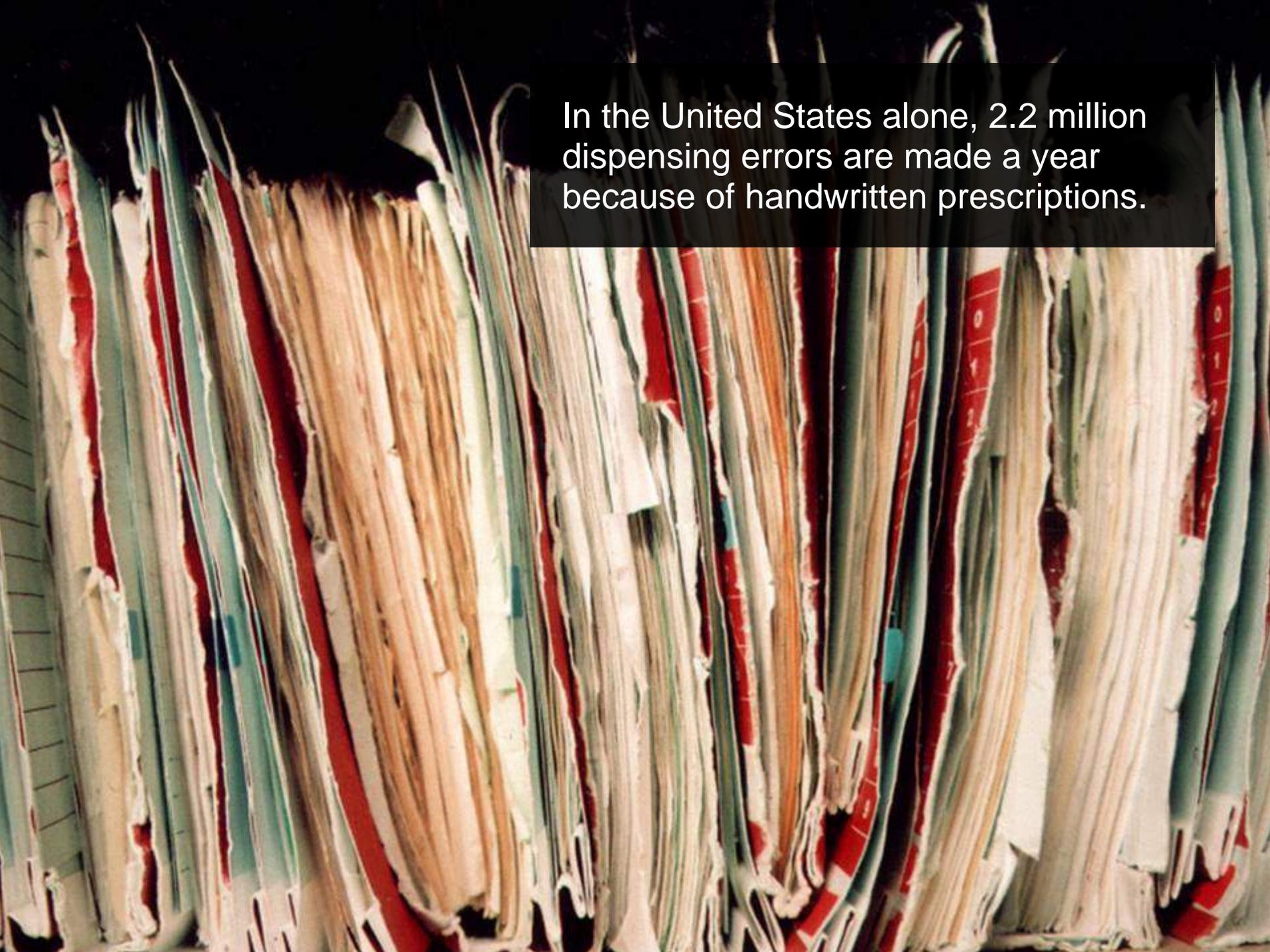
It's because we must.



An aerial photograph of a massive container yard. The yard is filled with hundreds of stacks of shipping containers in various colors, including red, blue, green, orange, and white. The containers are arranged in neat rows, creating a grid-like pattern. Some containers have logos and names visible, such as 'EVERGREEN', 'COSCO', and 'UNISLORY'. The perspective is from a high angle, looking down on the yard, which extends far into the distance.

In North America, up to 22 percent of total port volume is empty containers.

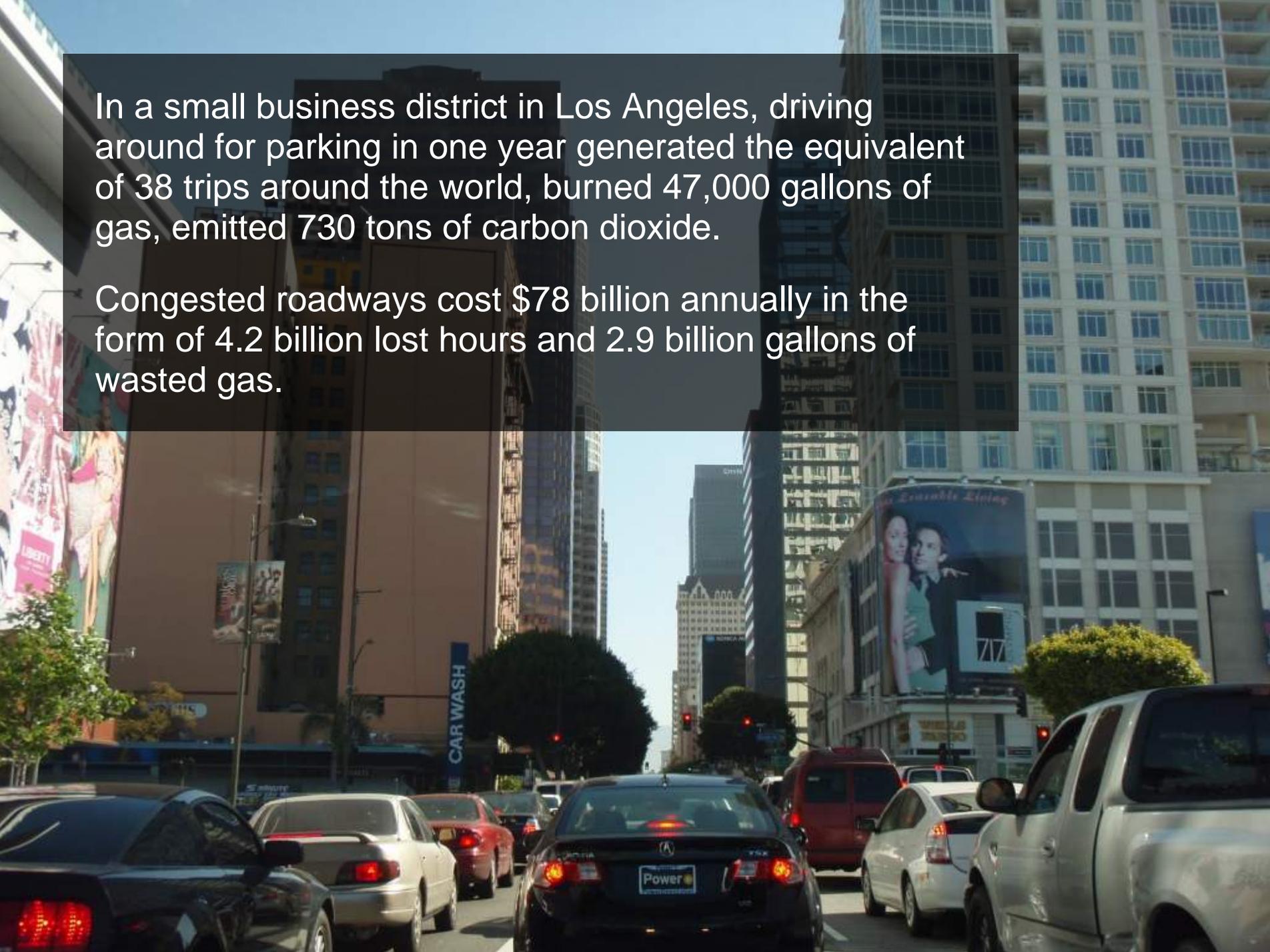
The Port of Jersey has 100,000 empty containers sitting in storage – worth nearly \$200 million.



In the United States alone, 2.2 million dispensing errors are made a year because of handwritten prescriptions.



The U.S. healthcare system loses more than \$100 billion a year to fraud.

A photograph of a busy city street in Los Angeles, showing heavy traffic and tall buildings. The street is filled with cars, including a black sedan in the foreground with a 'Power' license plate. Tall buildings line the street, with various signs and billboards visible. The sky is clear and blue.

In a small business district in Los Angeles, driving around for parking in one year generated the equivalent of 38 trips around the world, burned 47,000 gallons of gas, emitted 730 tons of carbon dioxide.

Congested roadways cost \$78 billion annually in the form of 4.2 billion lost hours and 2.9 billion gallons of wasted gas.

In the U.S., a typical carrot has traveled 1,600 miles, a potato 1,200 miles, a chuck roast 600 miles...

...grocers and consumers throw away \$48 billion worth of food every year.





Lesson 2: The opportunity of a technology-infused planet



INSTRUMENTED

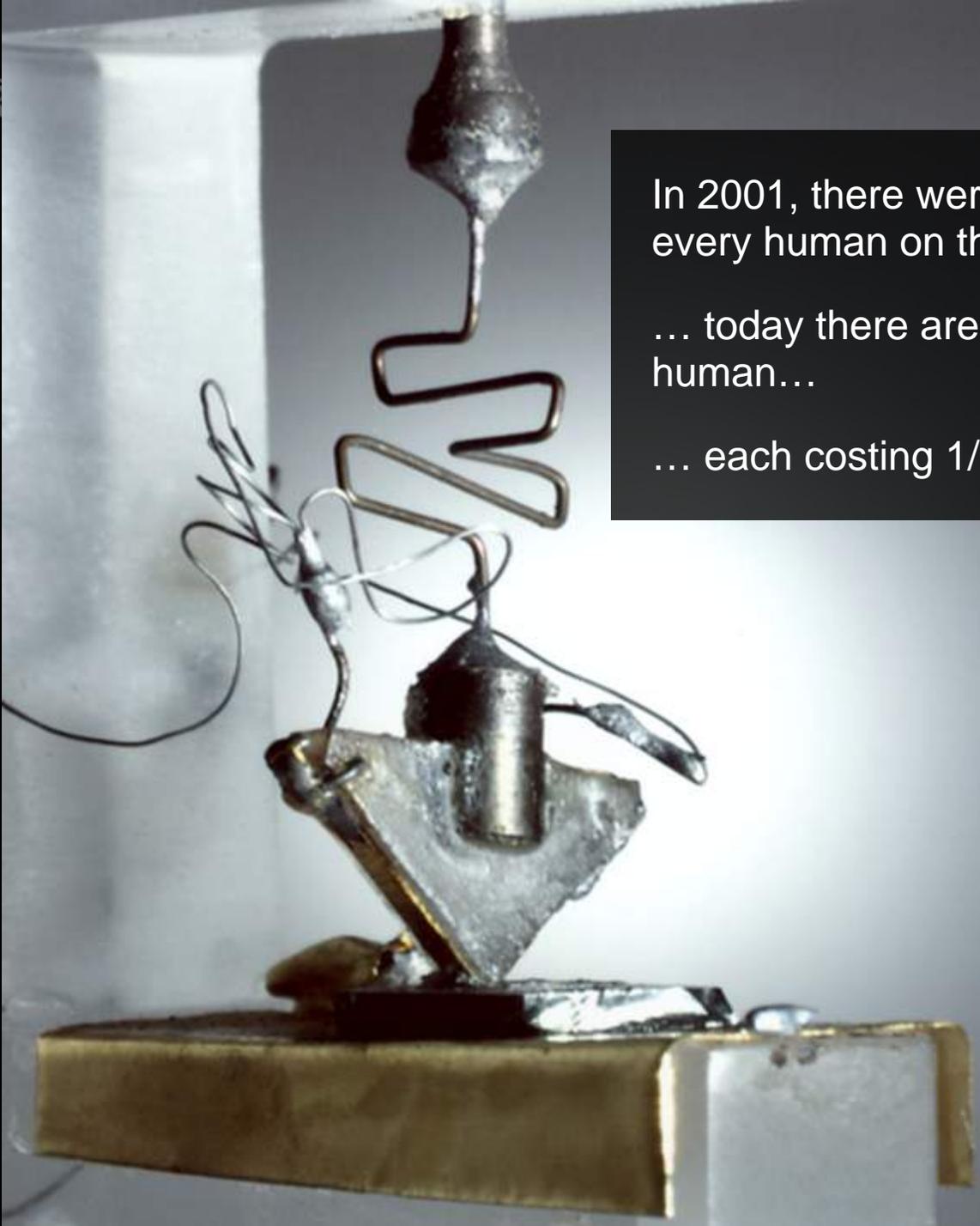
We now have the ability to measure, sense and see the exact condition of everything

INTERCONNECTED

People, systems and objects can communicate and interact with each other in entirely new ways

INTELLIGENT

We can respond to changes quickly and accurately, and get better results by predicting and optimizing for future events



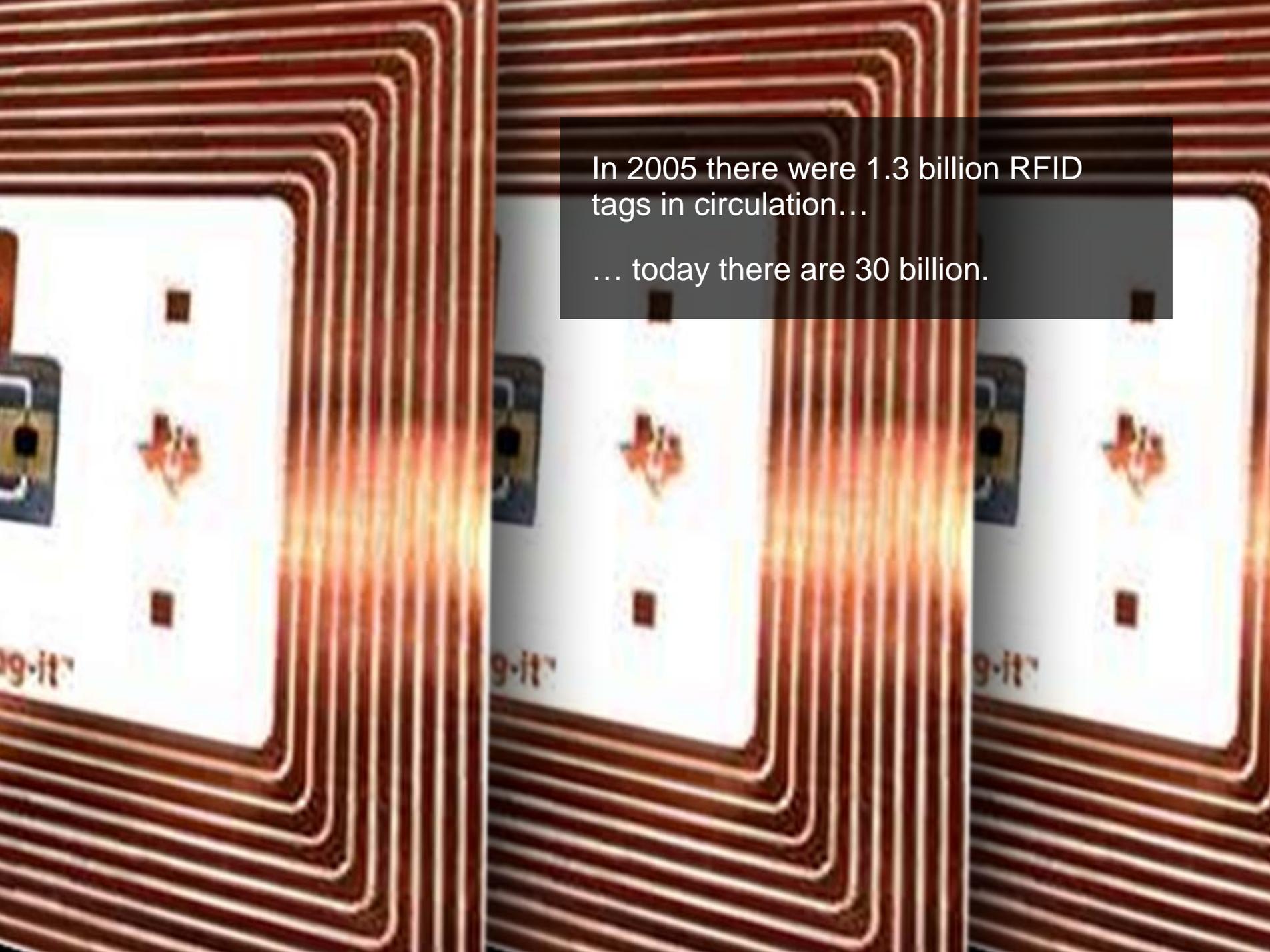
In 2001, there were 60 million transistors for every human on the planet ...

... today there are nearly 1 billion transistors per human...

... each costing 1/10 millionth of a cent.



Worldwide mobile telephone subscriptions have reached 4 billion.

The image shows three RFID tags stacked vertically. Each tag features a white central area with a Texas Instruments logo and a small square chip. The tags are surrounded by concentric copper coils. The text 'ig-it' is partially visible at the bottom of each tag.

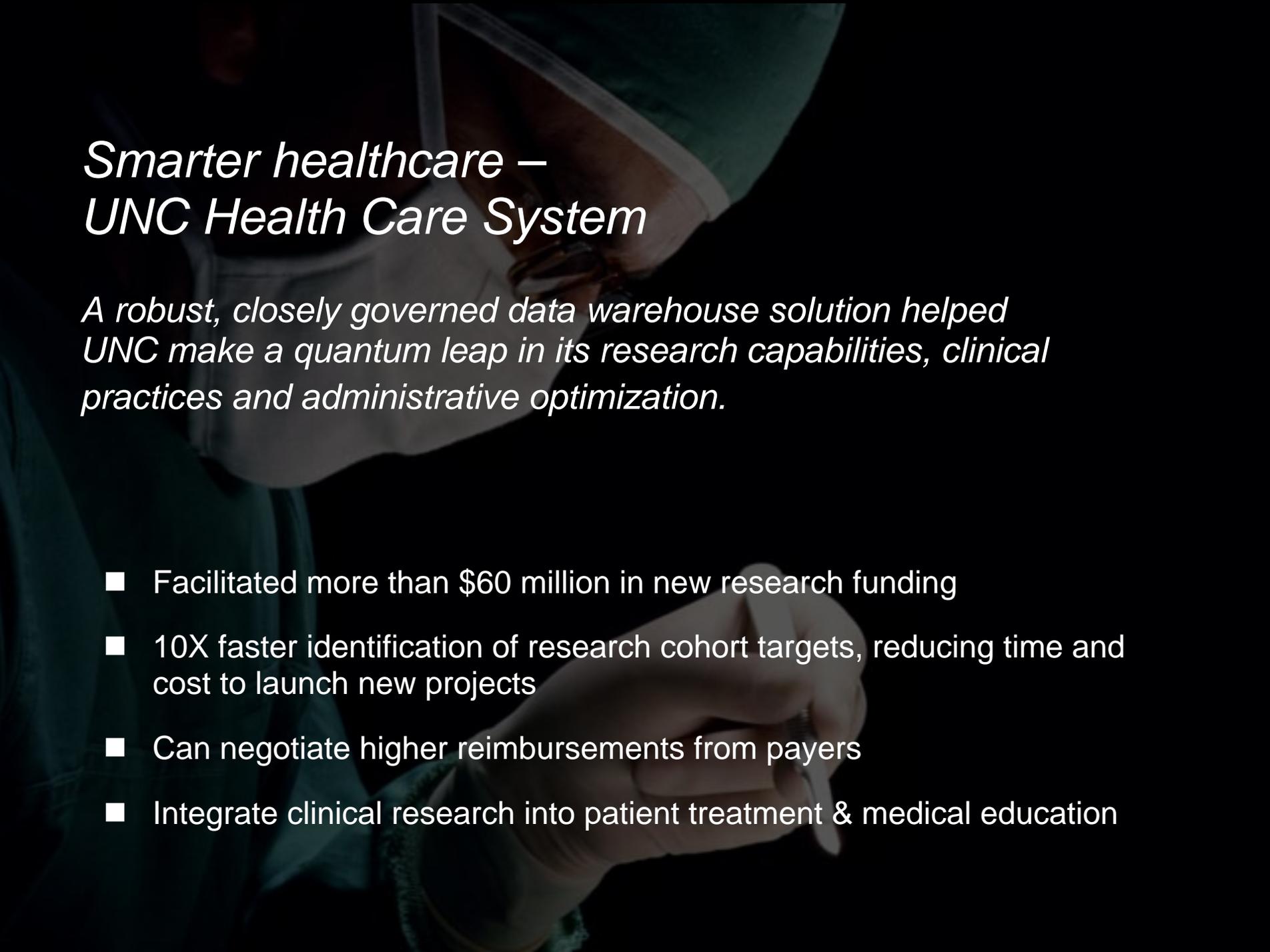
In 2005 there were 1.3 billion RFID tags in circulation...

... today there are 30 billion.

An estimated 2 billion people are on the Web ...

... and a trillion connected objects – cars, appliances, cameras, roadways, pipelines – comprising the "Internet of Things."

Browse

A surgeon in green scrubs and a surgical cap, looking down at a patient's hand. The background is dark, and the text is overlaid on the image.

Smarter healthcare – UNC Health Care System

A robust, closely governed data warehouse solution helped UNC make a quantum leap in its research capabilities, clinical practices and administrative optimization.

- Facilitated more than \$60 million in new research funding
- 10X faster identification of research cohort targets, reducing time and cost to launch new projects
- Can negotiate higher reimbursements from payers
- Integrate clinical research into patient treatment & medical education

A woman in a blue shirt is writing on a document with a pen. A young girl is looking at the document with a thoughtful expression, her hand resting on her chin. The background is dark and out of focus.

Smarter social services – Alameda County Social Services Agency

Using business intelligence, a state government agency dramatically improves its services to constituents while reducing the cost of fraud.

- \$11 million in direct savings through fraud and waste reduction
- Caseworkers have deep, real-time understanding of cases & status
- Reveals relationships between benefit recipients and programs, helping eliminate waste, fraud and redundancy
- Generates reports in minutes instead of weeks or months

Smarter farming – Sun World International

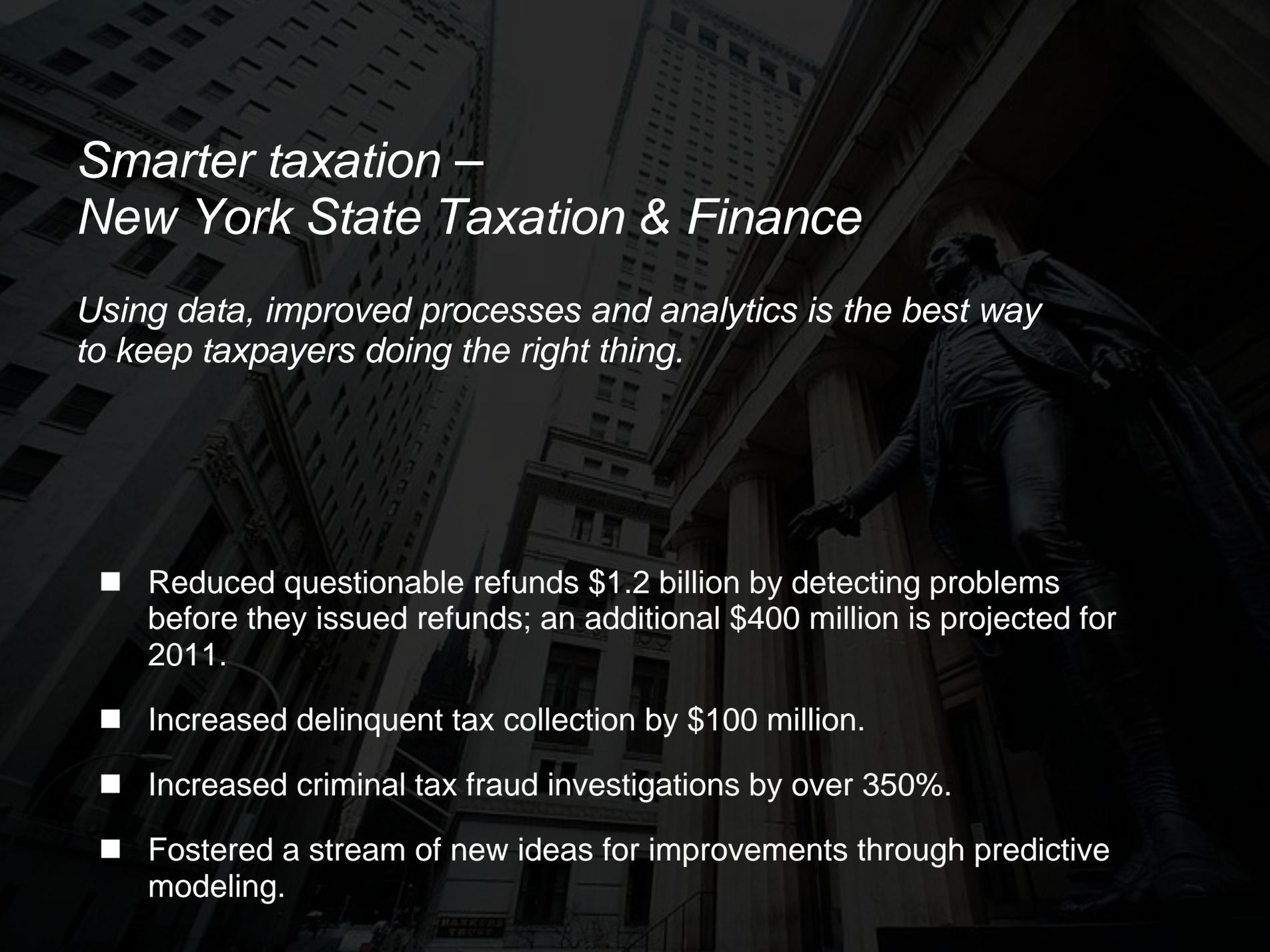
Combining operational efficiency and world-class breeding capability gives Sun World a powerful advantage over competitors.

- Reduced labor costs by 50¢/box for 11M packed boxes per year
- Customer base increased by 20% per year because of improved analysis of crop yields, sales data and retail buying trends
- Water usage per unit has decreased by 8.5% since 2006
- New business development grew by over \$3M in 2009 alone

Smarter public safety – Memphis Police Department

MPD's predictive enforcement tool based on modeling and analysis, gives the precinct commander the ability to change tactics and realign resources to help prevent crime and catch criminals in the act.

- 30% reduction in serious crime overall, including a 36.8% reduction in crime in one targeted area
- 15% reduction in violent crime
- 4x increase in the share of cases solved in the Felony Assault Unit
- Overall improvement in the ability to allocate police resource in a budget-constrained fiscal environment



Smarter taxation – New York State Taxation & Finance

Using data, improved processes and analytics is the best way to keep taxpayers doing the right thing.

- Reduced questionable refunds \$1.2 billion by detecting problems before they issued refunds; an additional \$400 million is projected for 2011.
- Increased delinquent tax collection by \$100 million.
- Increased criminal tax fraud investigations by over 350%.
- Fostered a stream of new ideas for improvements through predictive modeling.

Smarter banking – First Tennessee Bank

Banks today have more ways to communicate with customers, but this also made it harder for them to figure out where and how to most profitably commit their marketing resources.

- 600% overall return on its investment because of efficiently allocated marketing resources
- 3.1% increase in marketing response rate through more accurate targeting to high-value customer segments
- 20% reduction in mailing costs and 17% reduction in printing costs due to the ability to target the most attractive segment for specific offers



Lesson 3: A Call for Leadership

Embrace
open standards

Acknowledge
policy implications
of technology

Lead with
collaboration
and influence

IBM