# IBM PERFORMANCE EVENTS

Smarter Decisions. Better Results.

# Intelligent Solutions for a Smarter Planet

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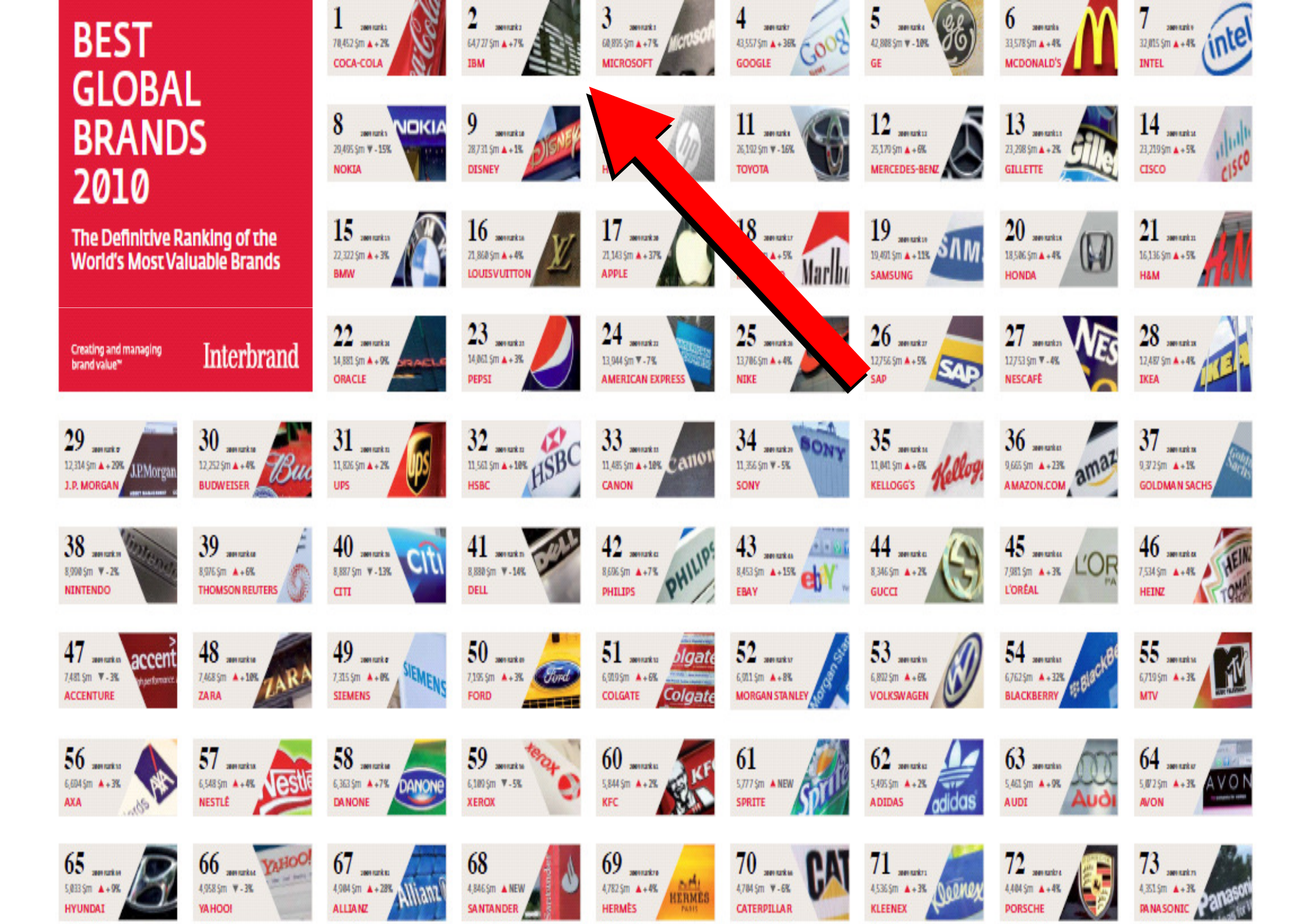
Executive Innovation & Technology IBM Benelux
10 november 2010

# BEST GLOBAL BRANDS 2010

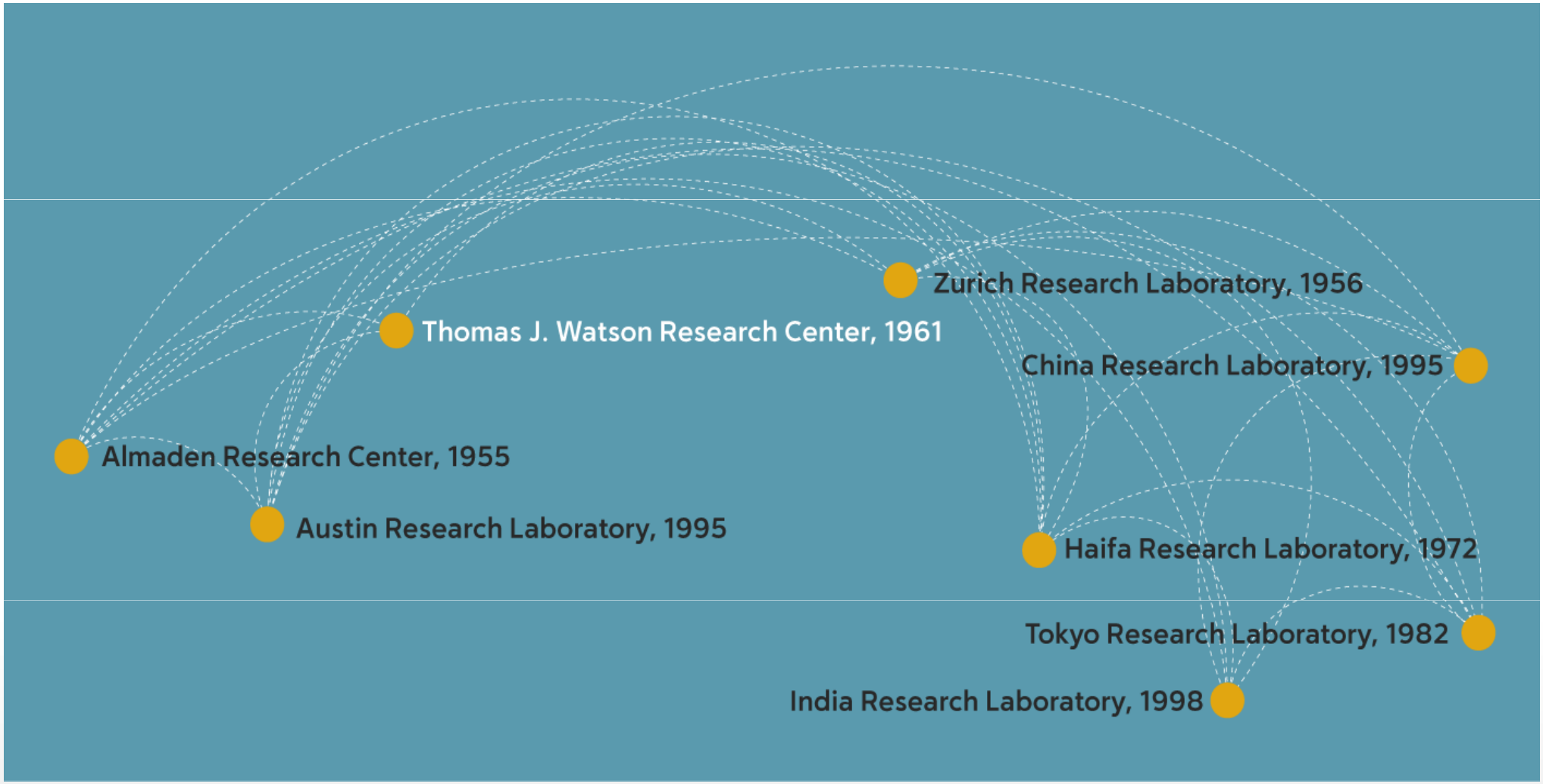
**The Definitive Ranking of the World's Most Valuable Brands**

Creating and managing brand value™

Interbrand



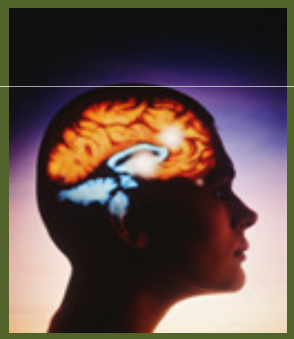
# IBM Research Worldwide




Now also in BRAZIL !!!

# Diversity of Disciplines at IBM Research

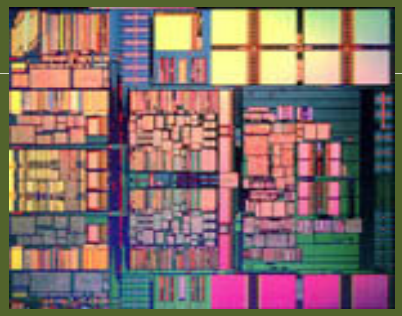
## Behavioral Sciences



## Chemistry

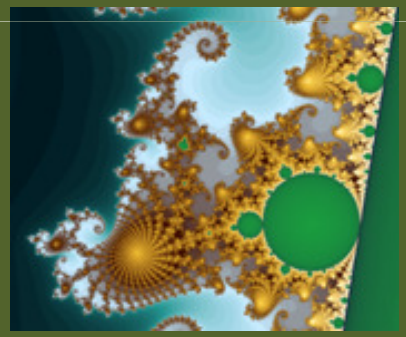
## Computer Science

## Electrical Engineering

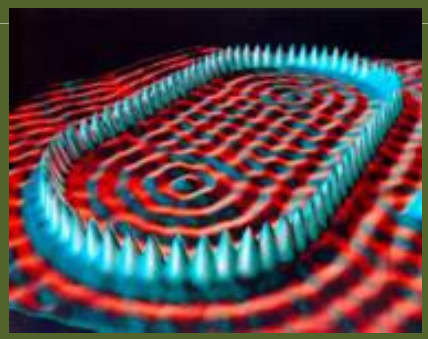


## Materials Science

## Mathematical Sciences



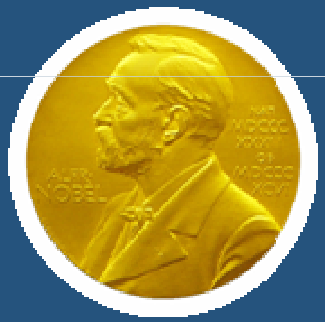
## Physics



## Service Science, Management & Engineering

# A Culture of Innovation

**5 Nobel Laureates**



**9 National Medals of Technology**

**5 National Medals of Science**

**6 Turing Awards**


**21 Members in National Academy of Sciences**

**Over 300 Professional Society Fellows**

AAAS ACM ACS
APS AVS ECS
IOP IEEE OSA

**59 Members in National Academy of Engineering**

**10 Inductees in National Inventors Hall of Fame**

# Hudge amounts of data

**It took 4 million years to create all data until the year 0**

**This amount doubled in the next 1500 years (until the Renaissance)**

**When we look at the sixties of last century we have doubling of data every 6 years**

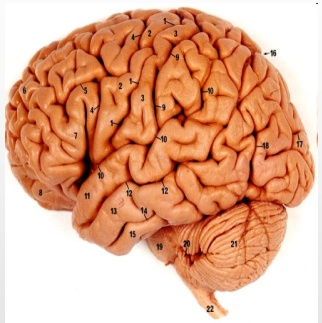
**Now around 2010 we see a doubling every six months And it keeps growing !!!**

# For our Smarter Planet strategy we need 2 things

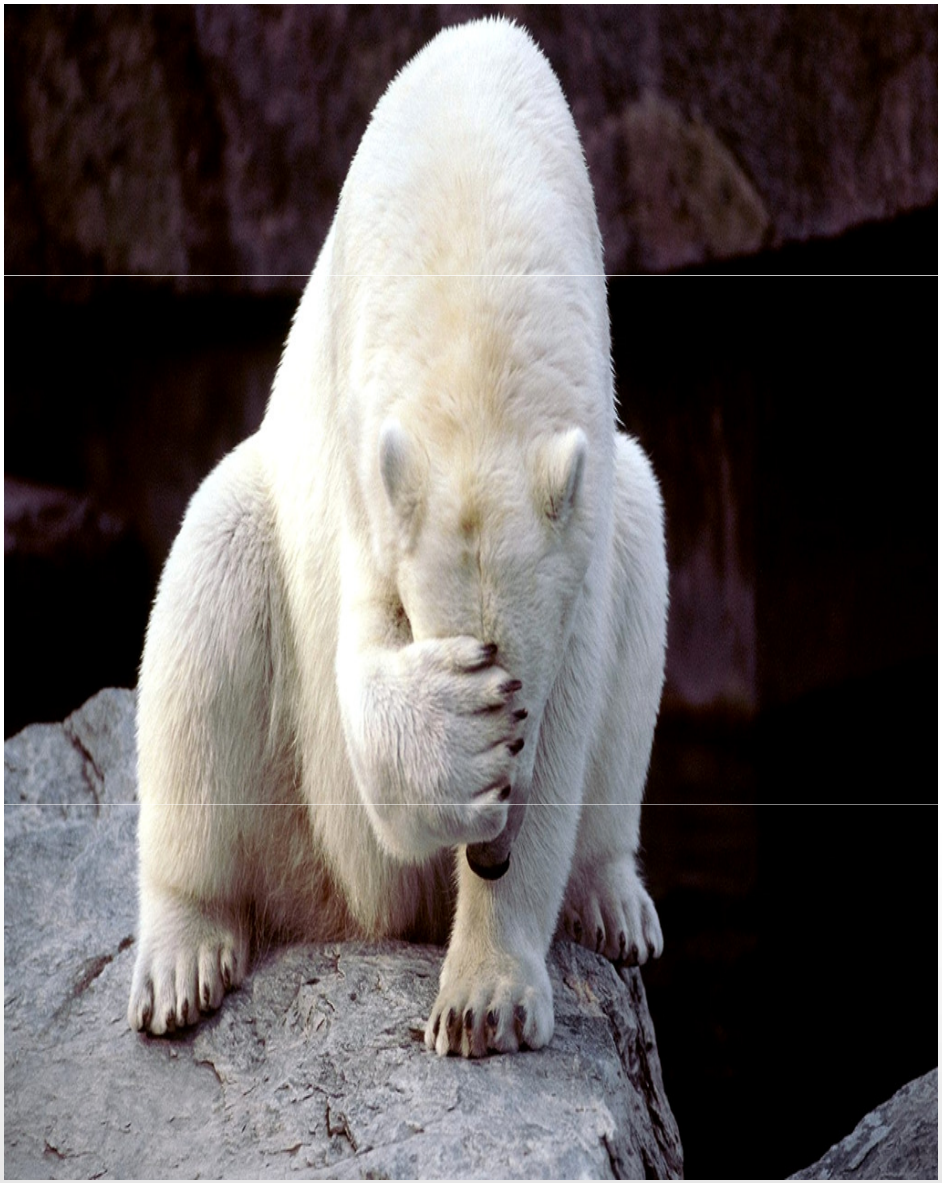
1. Computer Power
2. Calculation methods.

As customers you know
its going well with computerpower!
We are on the first place
with a Petaflop computer.

In 2015 the available
computerpower will
reach 10 Petaflop!!



As much brainpower
as the human brain



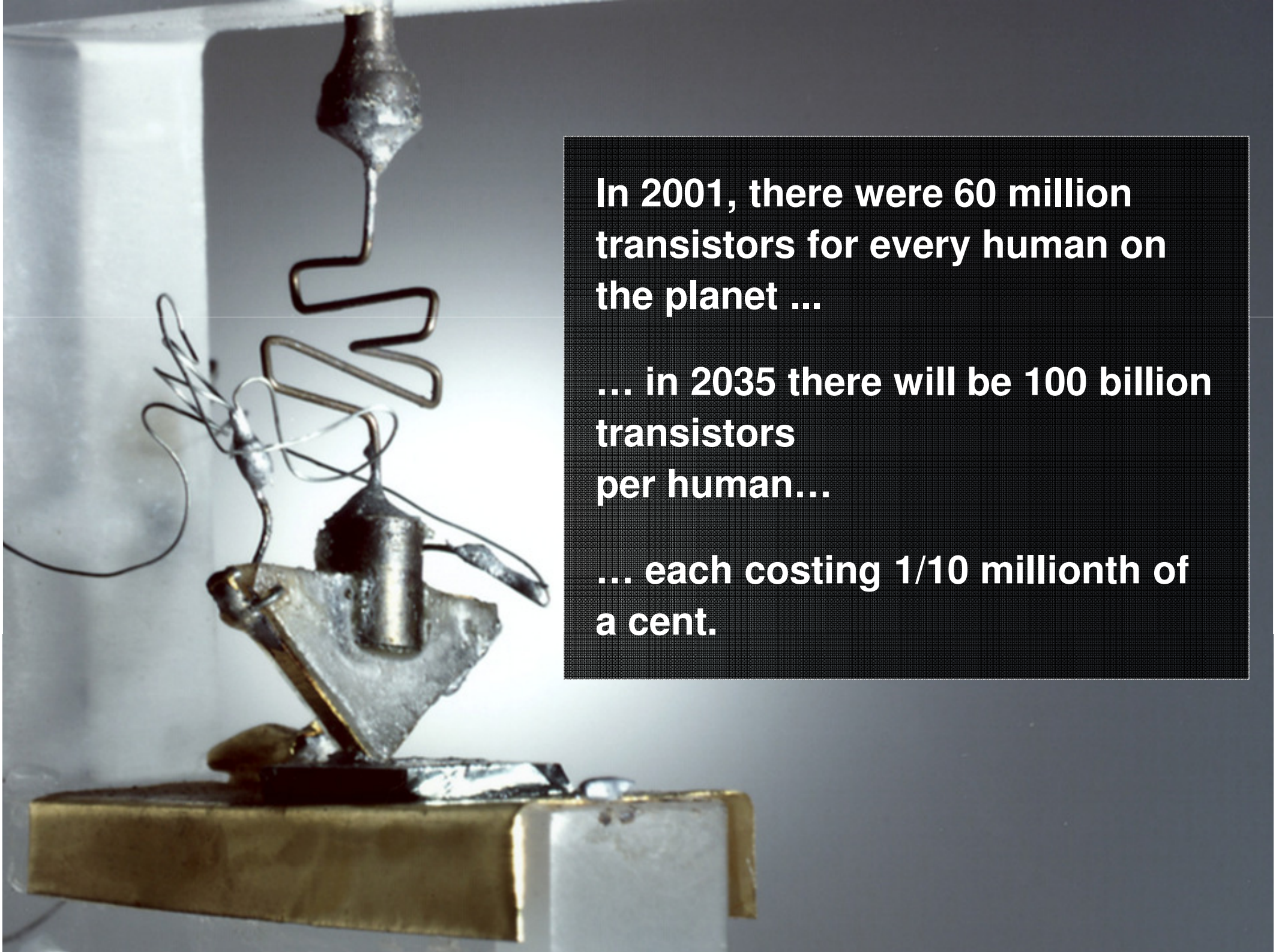
# INTELLIGENCE UNLEASHED

Freedom to **Think**

**Connect** with Others

and Simply **Do**


**Proven platform with seamless upgrade.**


In 2001, there were 60 million transistors for every human on the planet ...
… in 2035 there will be 100 billion transistors
per human…
… each costing 1/10 millionth of a cent.

# Lets build a Smarter Planet

Our world is becoming
**INSTRUMENTED**

+

Our world is becoming
**INTERCONNECTED**

+

Virtually all things, processes and ways of working are becoming
**INTELLIGENT**

=

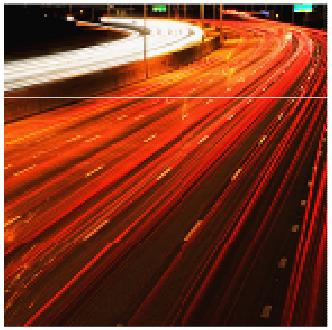

FORTUNE

SMARTER PLANET

IBM's grand plan to save the planet

Here is CEO Sam Palmisano's formula for changing the world: Find problems, throw in billions of dollars in R&D, add consultants and an earnest ad campaign - and watch the profits roll in.

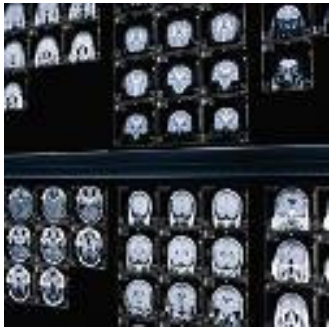
# Smarter Planet IBM's strategy to think and act in new ways, economically, socially and technically



Smarter Transportation

Smarter Oil & Gas

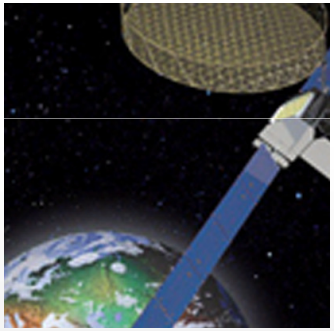
Smarter Food



Smarter Healthcare

Smarter Utilities

Smarter Retail



Smarter Telco

Smarter Supply Chains

Smarter Public Safety

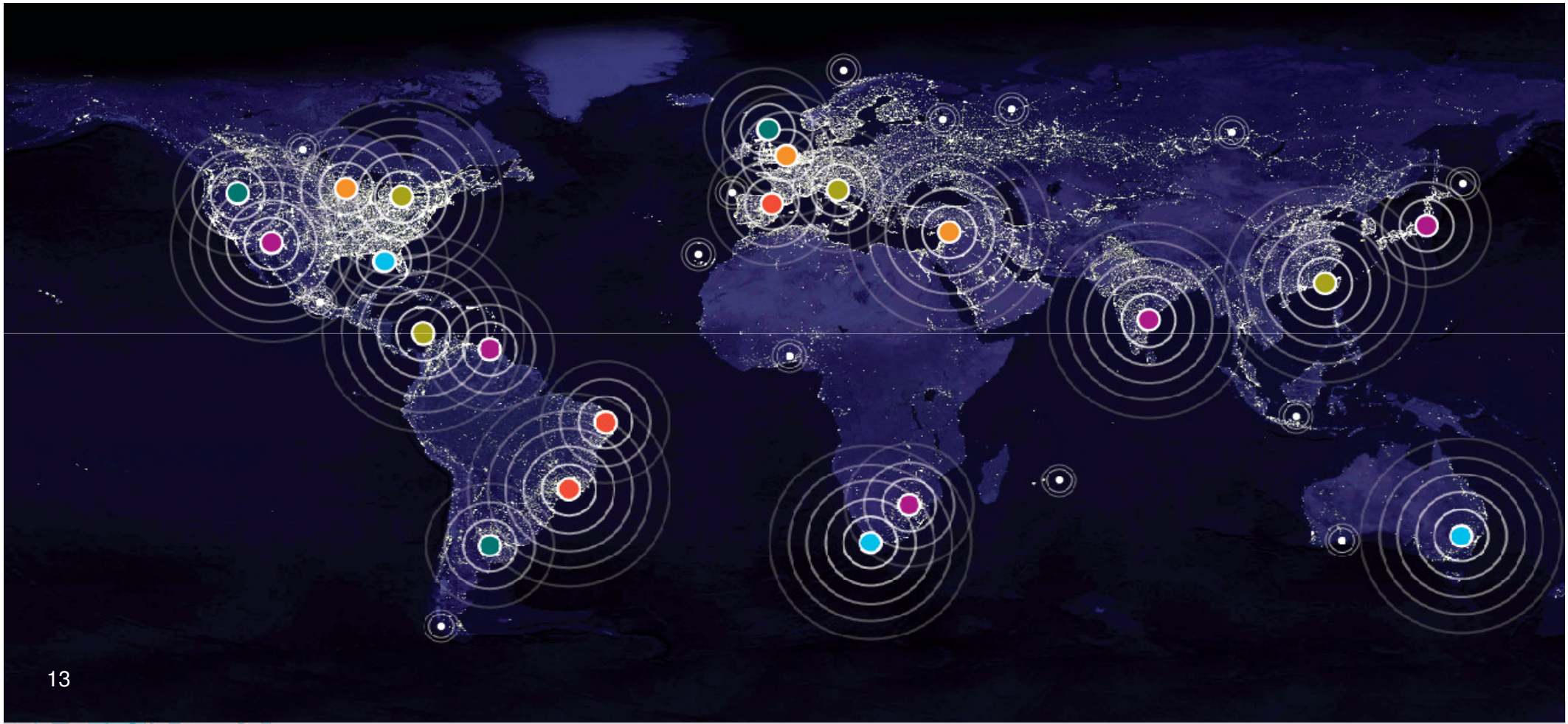
Smarter Money

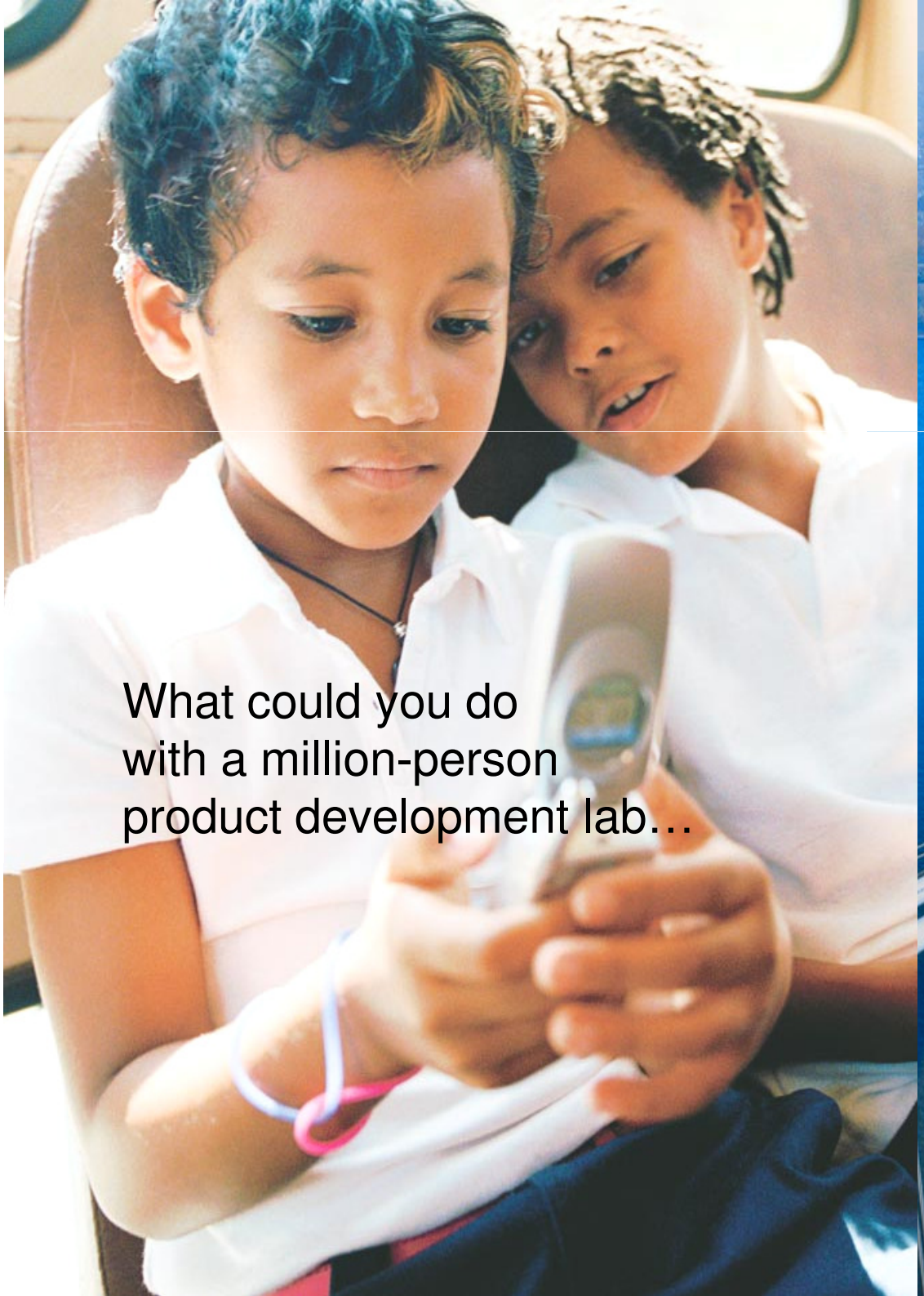
Smarter Water Management

Smarter Cities

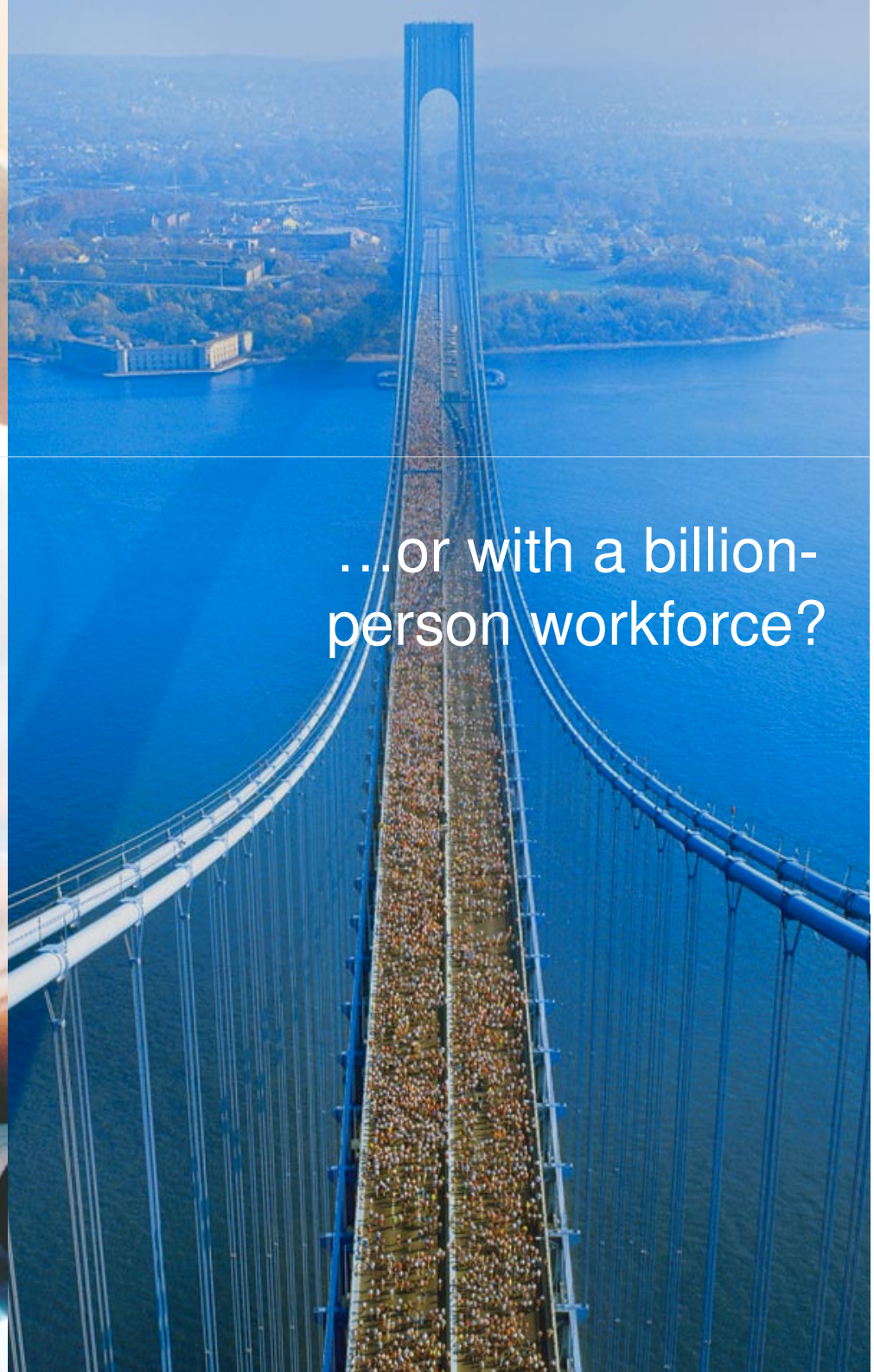
# Smarter Cities

In 2007, for the first time in history, the majority of the world's population lived in cities – 3.3 billion. By 2050, city dwellers are expected to make up 70 percent of the earth's total population – 6.4 billion.





What could you do
with a million-person
product development lab…



…or with a billion-
person workforce?

# It’s time to take advantage of….

- smart objects
- the connectedness of everything
- supercomputing for everyone
- information put to work
- collaboration & co-creation
- the marketplace for expertise
- the virtual corporation

# Across the globe IBM and her Business Partners have to deal with a a crushing set of challenges

**78%**

Percentage of CIOs who want to improve the way they use and manage their data

**10 billion**

Number of marketplace data messages handled by global trading systems each day, placing these systems under extreme stress

**20% to 70%**

Loss of electrical energy around the world because of inefficiency

**1 trillion**

Number of devices that will be connected to the Internet by 2011

**US$4 trillion**

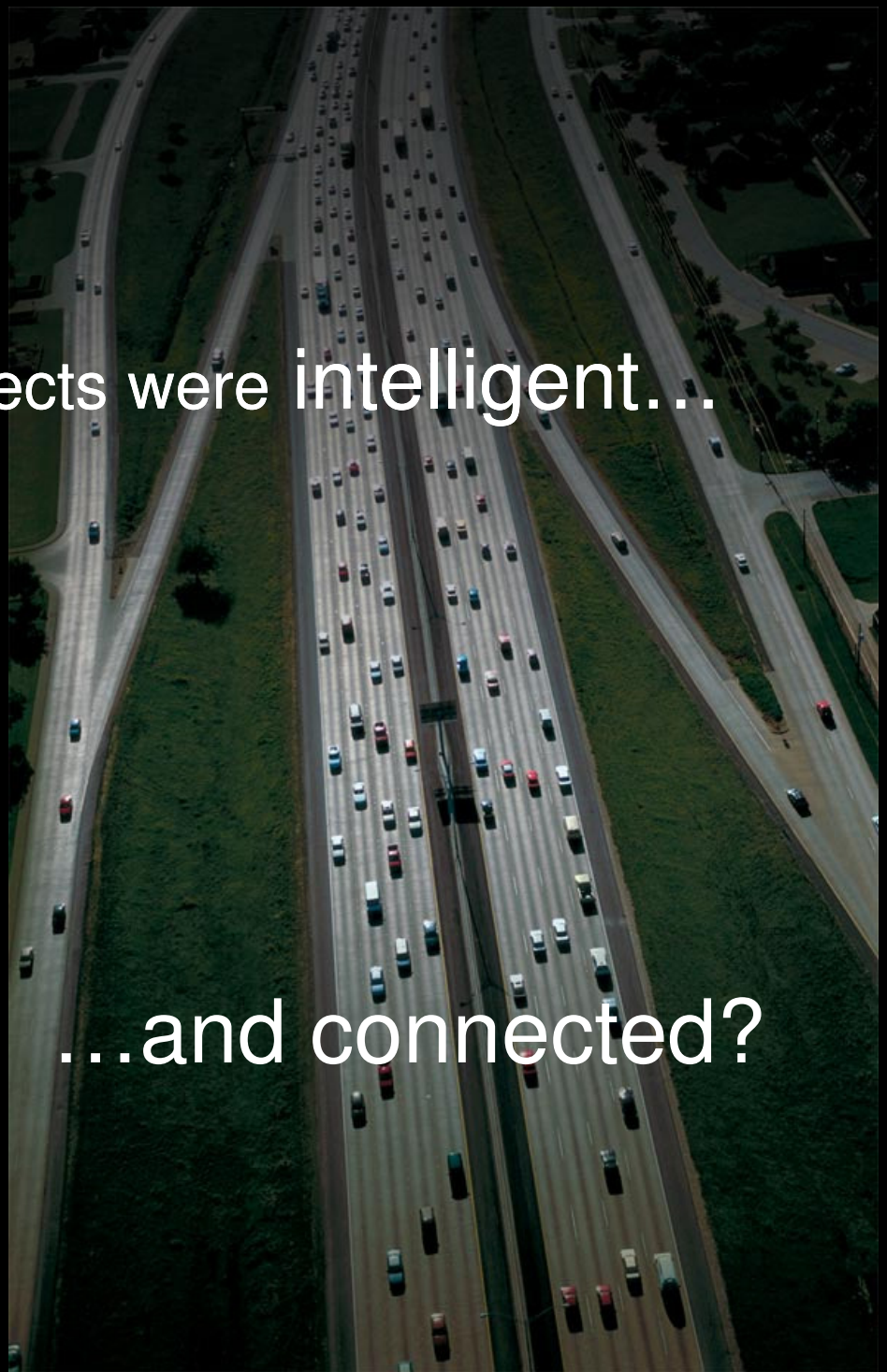
Average daily volume in the world's currency marketplaces

**$48 Billion**

In the U.S., a typical carrot has traveled 1,600 miles (in Benelux about 320 km), a potato 1,200 miles, a chuck roast 600 miles… Grocers and consumers throw away $48 billion worth of food every year.

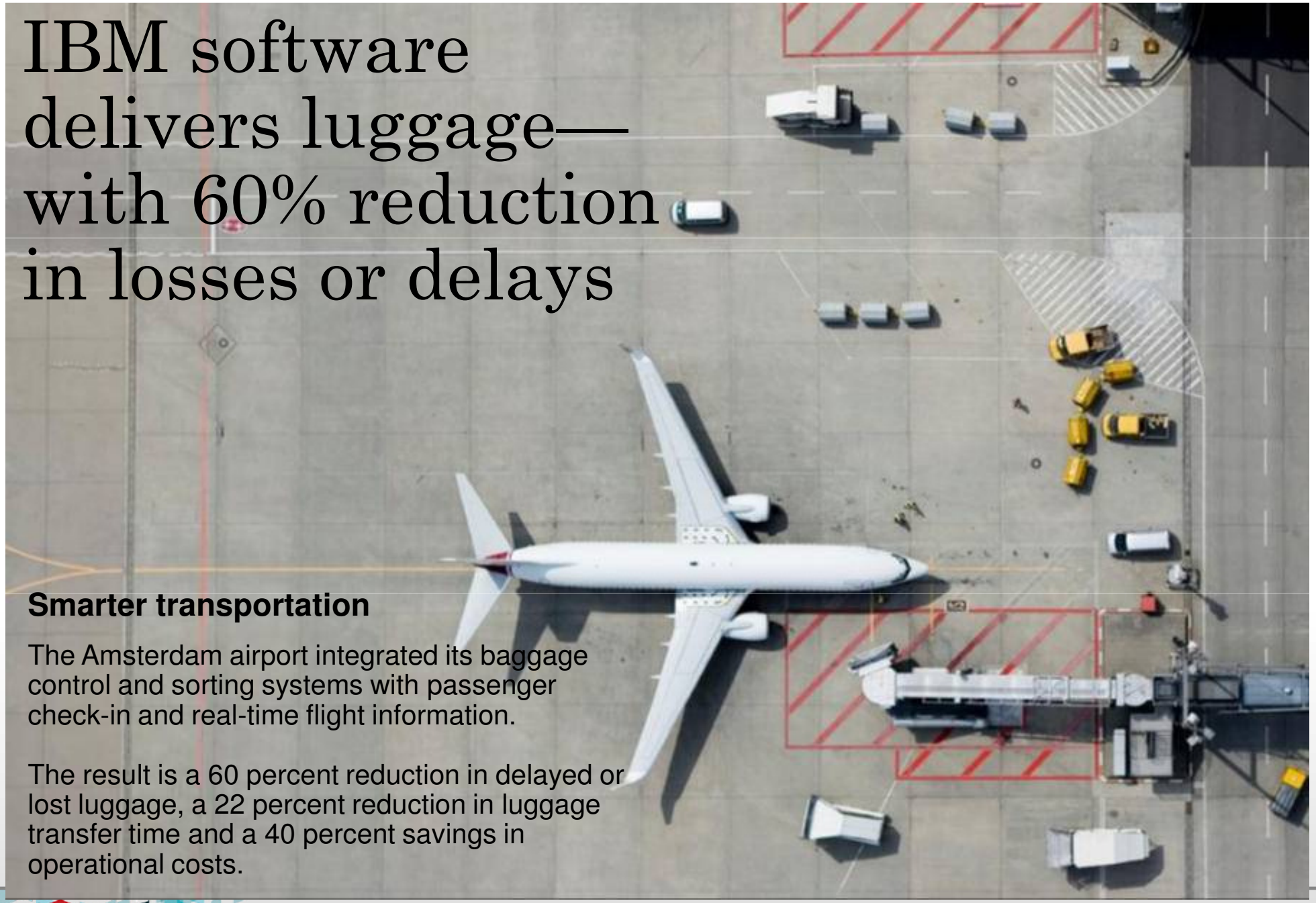
# A possible example ..... Highway A2 in 2025

What could you do if all objects were intelligent…



…and connected?

# IBM software delivers luggage—with 60% reduction in losses or delays



**Smarter transportation**

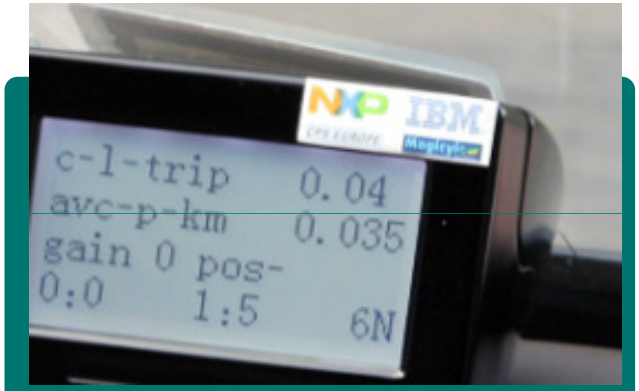
The Amsterdam airport integrated its baggage control and sorting systems with passenger check-in and real-time flight information.

The result is a 60 percent reduction in delayed or lost luggage, a 22 percent reduction in luggage transfer time and a 40 percent savings in operational costs.

# Smarter Traffic

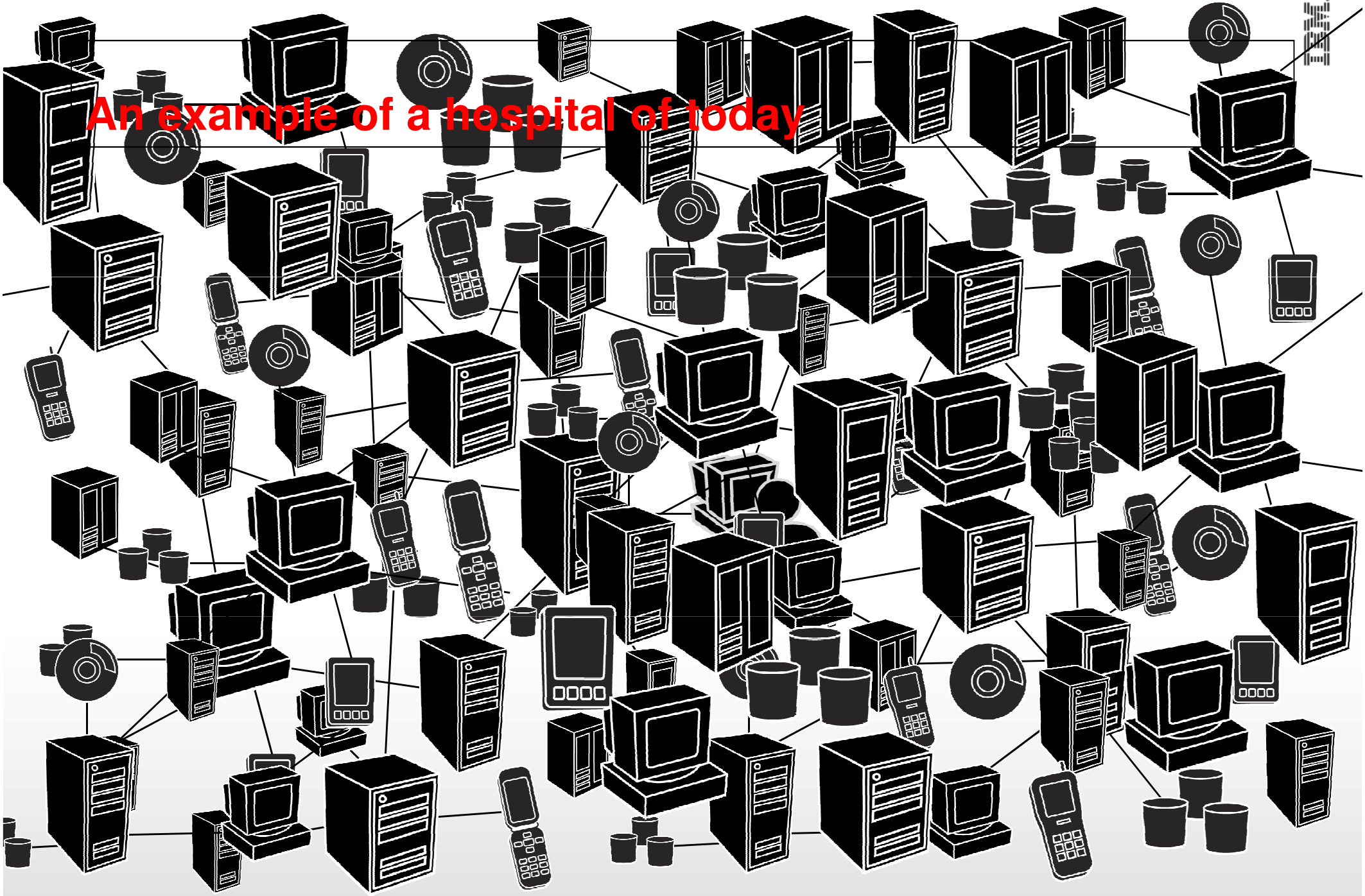
**Stockholm** implemented an intelligent toll system in the city center, which resulted in 20% less traffic, 40% lower emissions and 40,000 additional users of the public transportation system.


**DAF Trucks** wanted to make their fleet management smarter. DAF engaged IBM to facilitate a solution in which DAF and it's customers could use telemetry data. This system uses real-time data gathered from the fleet's trucks, providing options to better interact with the fleet and optimize processes in real time.

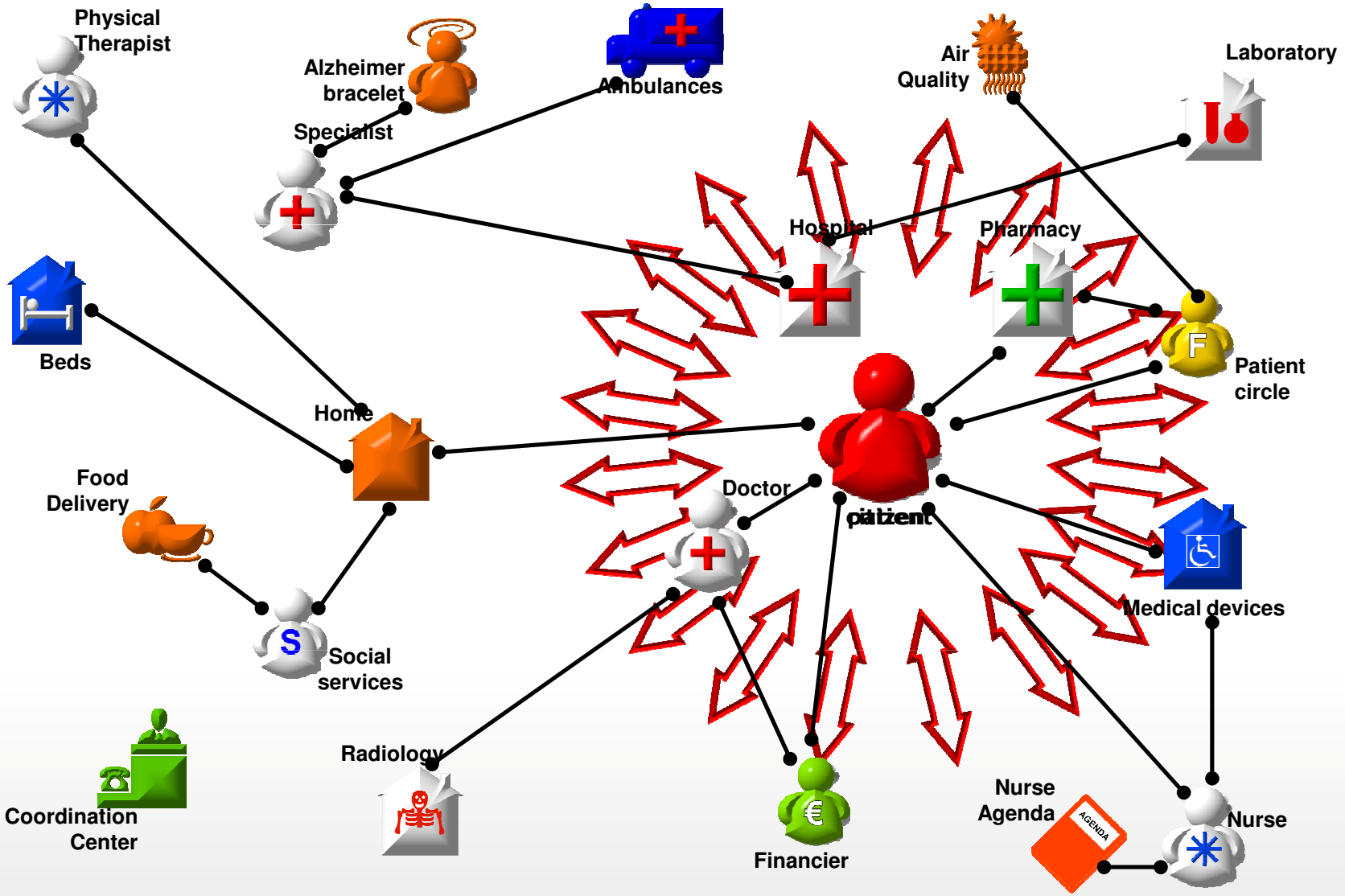



The first Dutch road charging trial done by IBM and NXP in the **city of Eindhoven** demonstrates that Road User Charging has a positive effect on driving habits which are necessary to improve mobility. The results show that 70% of trial participants improved behavior by avoiding rush hours and using highways instead of local roads.

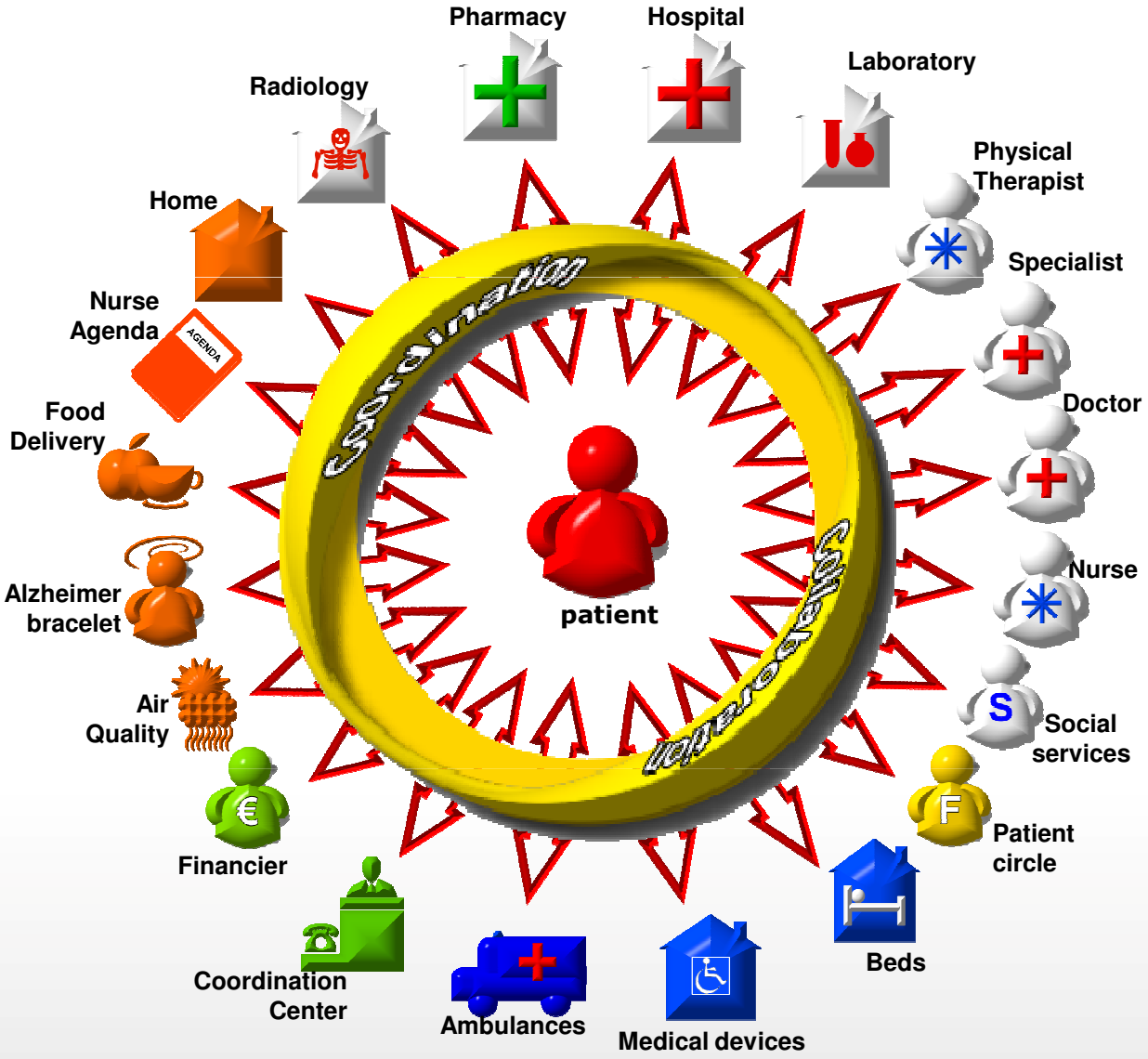
# An example of a hospital of today



# FROM:


Physical Therapist
Alzheimer bracelet
Specialist
Ambulances
Air Quality
Laboratory
Hospital
Pharmacy
Beds
Patient circle
Home
Food Delivery
Doctor
patient
Medical devices
Social services
Coordination Center
Radiology
Financier
Nurse Agenda
Nurse

# TO: a Smarter Healthcare System



# IBM software reduces the guesswork—20 times faster

**Smarter healthcare**

Researchers at EuResist can predict how a patient with HIV will respond to treatment by instantly comparing a blood sample against 33,000 HIV treatment histories.

Doctors treat patients based on insights that are more than 76 percent accurate and come up to 20 times faster than anything in the marketplace.

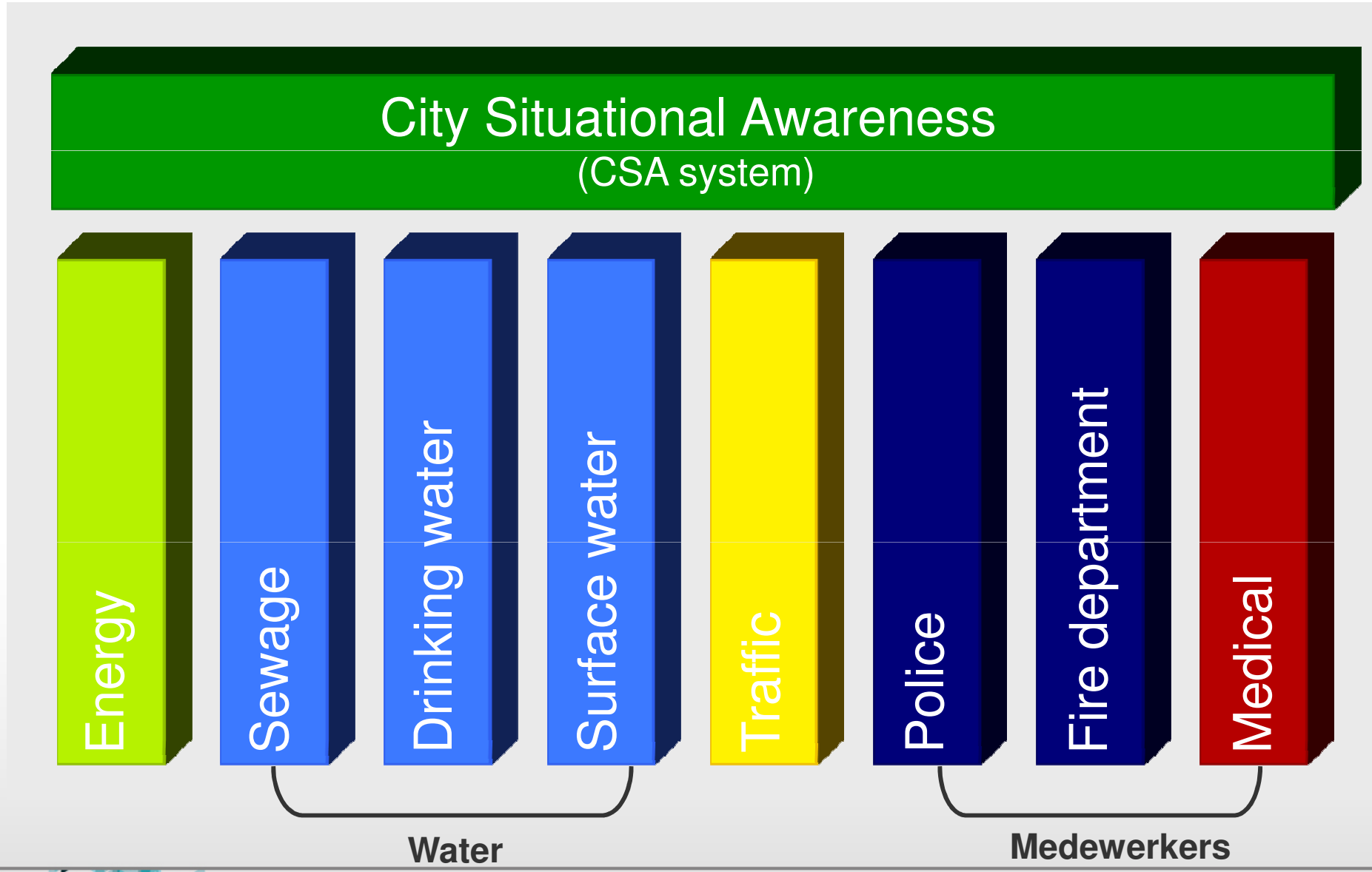
# Smarter Healthcare

In **Rochester** in the US, Mayo Clinique and IBM are collaborating to help physicians the ability to register medical images up to 50-times quicker and provide critical diagnosis, such as the growth or shrinkage of tumors, in seconds instead of hours.

In **Antwerp** IBM helped the Universitair Ziekenhuis Antwerpen to develop a platform to improve the knowledge and diagnostic capability of rare diseases.

In **Alkmaar** we are building the hospital environment for the future. This is to gain a higher efficiency and open possibilities to build a new IT platform that makes these hospitals ready for the new ways of communication within Healthcare.

# The CSA System: integrating several ‘stovepipes’



# Rotterdam Demo Scenario

1

Melting snow in Alps & rainwater

2


Rhine level above normal

3

UK storm & NL Dyke inspections

4

Fast rising water in Rhine and Maas

5

Dyke inspector reports

6

Arriving storm & Pumping activity

7

Preparation of water plazas

8


Heinenoord Tunnel flooded & GPS messages

9


Sea water rising & Maesland barrier

10

Centre Dordrecht flooded & SMS messages

11

Information release / Distribution

Energy

Water

**Decision Support**

Traffic

Resources

Medical

How can we set priorities in giving information to the firedepartment and police (concerning the status of tunnels , squires , etc.)

How can we set the right pumping volume?

# Smarter Cities

IBM is helping the City of **Rotterdam** to monitor real-time data regarding climate change and energy management, enabling the local government to reduce the amount of CO2 in the city, realize better water management and create a better environment for its citizens.

**Brussels & Leuven** are lining up to showcase the solution IBM and partners developed. Next to the road charging functionality, other capabilities of the solution and value added services will be tested and demonstrated

In the city of **Mons**, IBM partners with the Walloon Region and Cisco for the creation of a non-profit initiative: the "Euro Green IT Innovation Center". Purpose of this Center is to launch innovative pilot projects in the Region

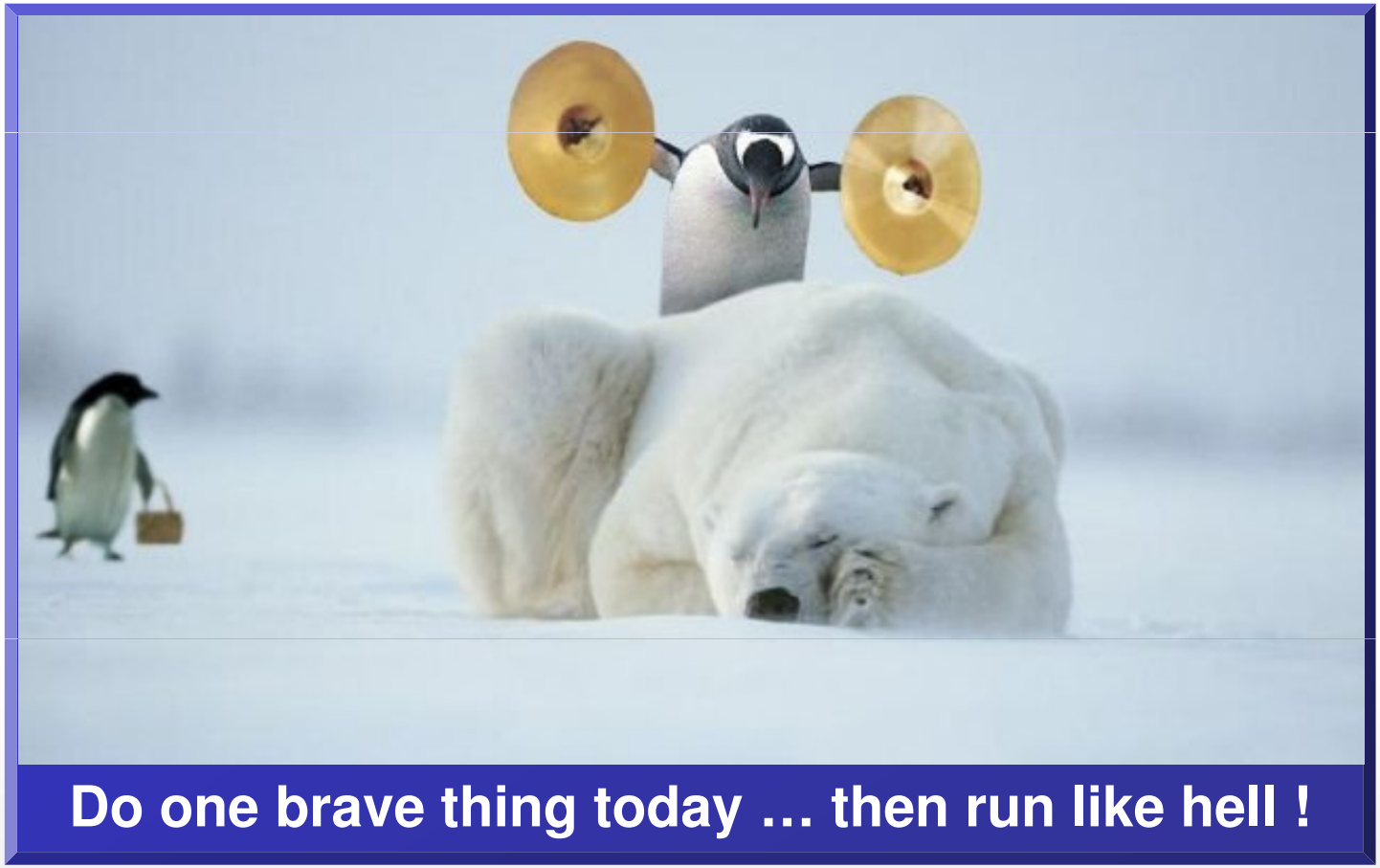
# In the end its all “quite simple”

**Make use of the available information & tools**

- **Connect different sources**
- **Analysing**
- **Calculating**
- **Data mining**
- **Take decisions**

- **START TO WORK With IBM BUSINESS ANALYTICS FOR A SMARTER PLANET**

# Going towards the future with new technologies takes courage …




# Thanks for your attention