From Fragile to Agile: A Smarter Approach to Economic Growth and Vitality

Karen Parrish
Vice President, IBM Global Public Sector

- What makes a nation, a region or a city a compelling place to live, work and do business?

- What makes a business want to relocate, stay, expand or grow in an area?

- What is the right balance of initiatives to achieve citizen satisfaction and sustained competitive advantage in the marketplace?
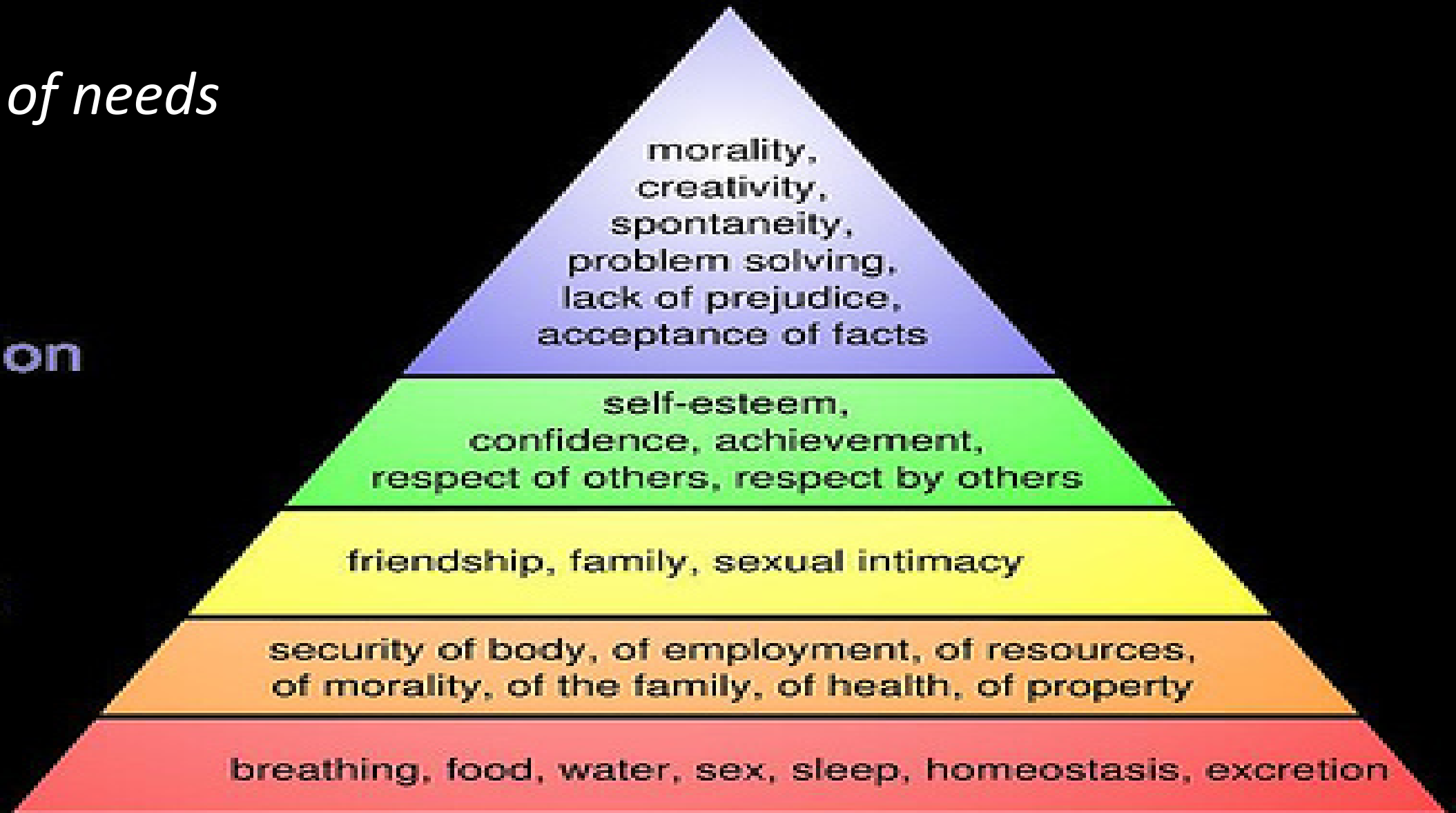
From 40% to 50% **to 70%**

From 5% to 7% **to 16%**

From **43%** to 22% to 3%

Economies in Transition

The global **commodity**

Asia

The **CAPITAL** flows

Convene
Collaborate
Cross boundaries
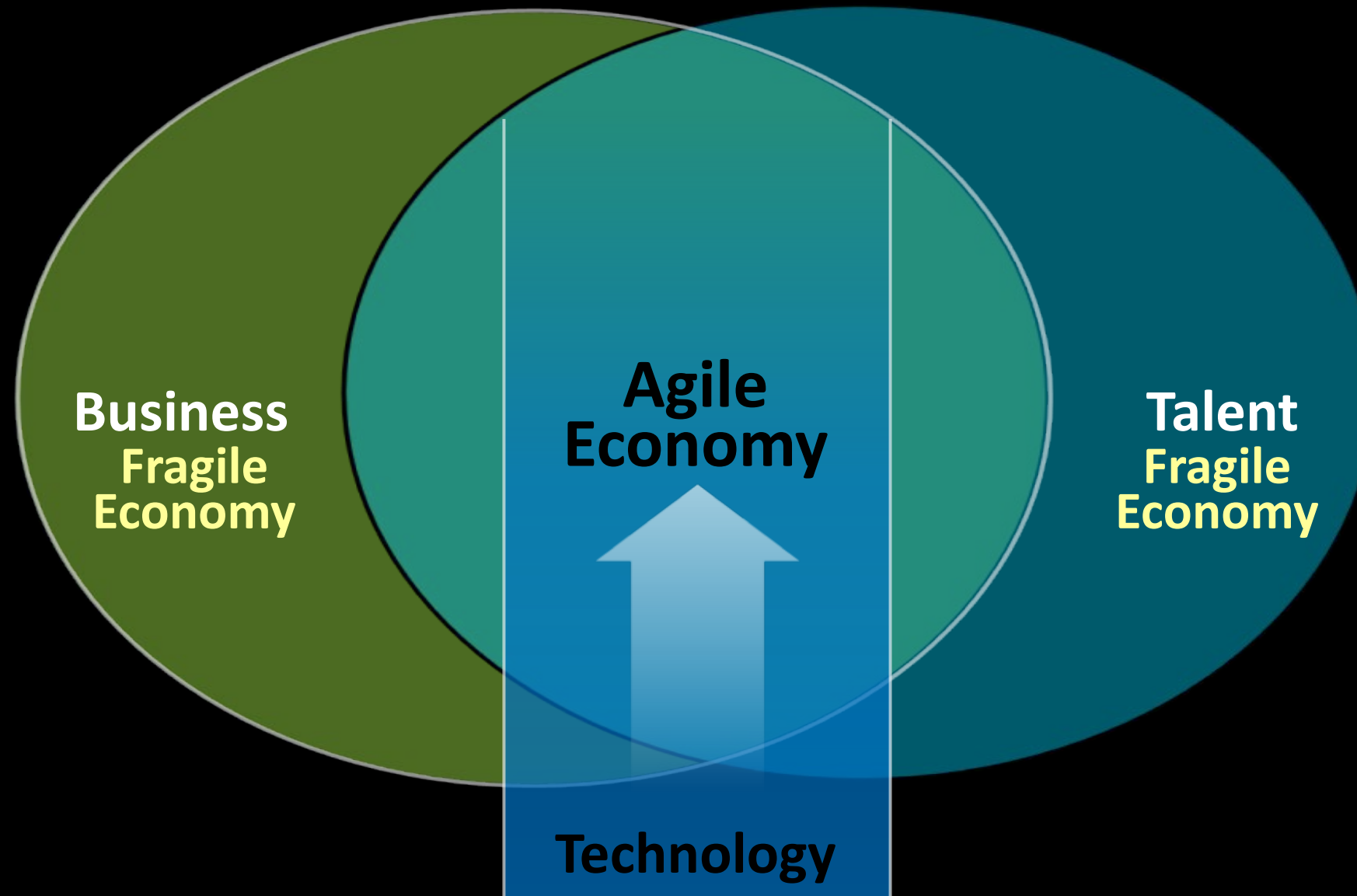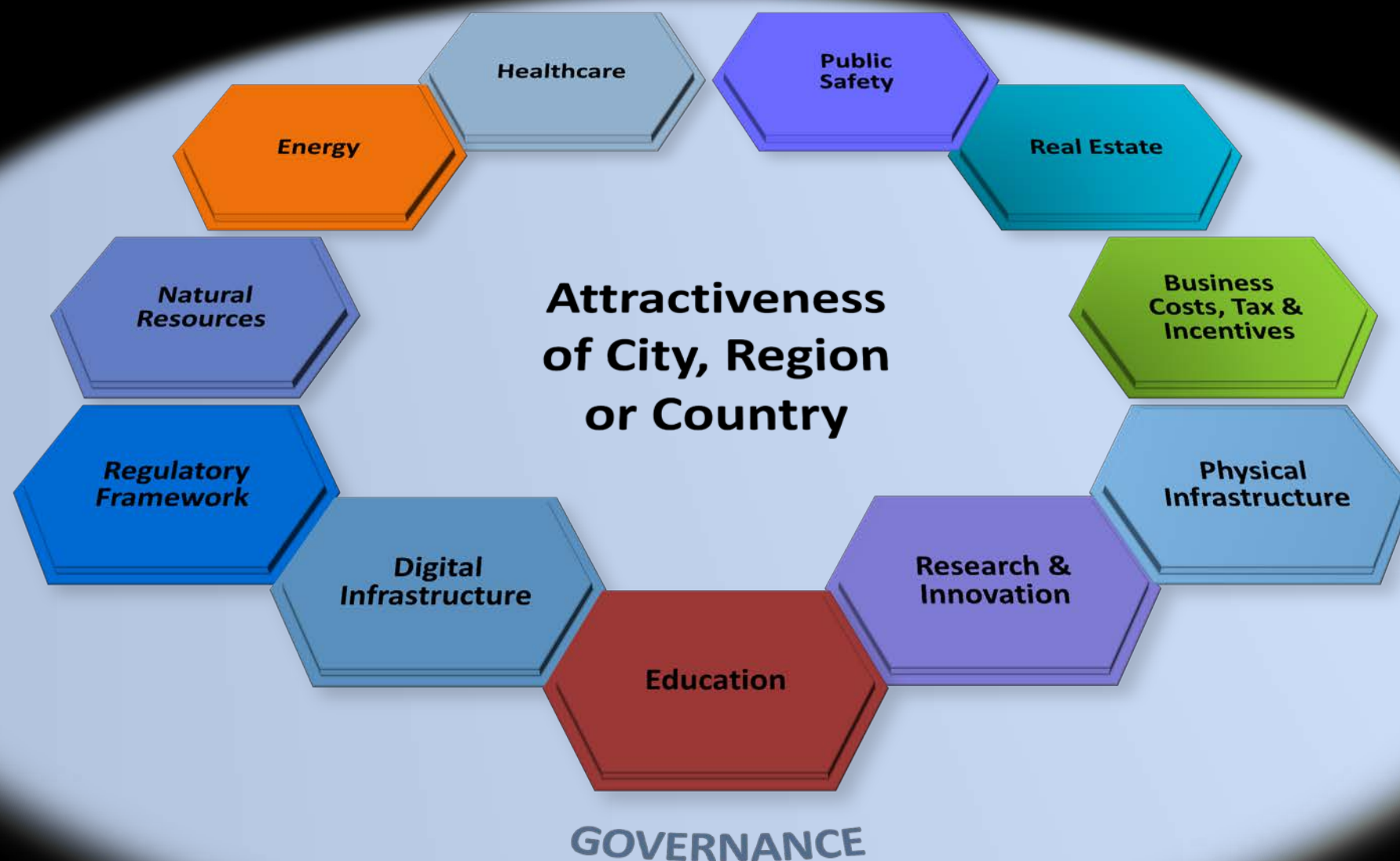
Gwinnet County Public Schools monitor and analyze student performance, identifying and helping at-risk students proactively

Awarded USD1 million

grant by demonstrating improvements in student achievements

100 % improvement

in access to teachers' gradebook technology off school grounds through use of portal

Identifies students

who are at risk or performing poorly, enabling teachers to proactively intervene

Solution Components

- IBM® SPSS® Statistics
- IBM SPSS Modeler
- IBM Cognos® Business Intelligence V10.2.1
- IBM Connections
- IBM WebSphere® Portal
- IBM Global Business Services® – Advanced Analytics and Optimization
- IBM Global Technology Services® – Integrated Technology Services
- IBM Business Partner Desire2Learn Inc.

Business Challenge: Gwinnet County Public Schools is striving to bring digital content and devices into the classroom so that students can receive the personalized learning they need plus learn in the style best suited to them. The ultimate goal of the five-year program is to make it easier for teachers to access the tools they need to improve student learning while making learning more real and relevant to children who have never known a world without sophisticated technology.

The Smarter Solution: The district is building an intelligent education platform that consolidates student, teacher, instructional and institutional data. Using advanced and predictive analytics, teachers can track, monitor and forecast student academic achievement, plus measure and compare learners' progress in relation to that of classmates. By spotting learning shortfalls proactively, teachers can intervene with personalized instruction that routes learners back on track, helping prevent at-risk students from failing, improving grades and boosting student graduation rates.

The solution provides teachers with more actionable and insightful information about their students' learning needs as well as their own teaching strengths.

—CEO and superintendent, Gwinnet County Public Schools

Convene Collaborate Cross boundaries

A U.S. city alerts citizens to water waste, increases water leak detection and encourages water conservation by providing deep insight into water consumption trends through a solution that combines the power of cloud computing and analytics.

The Opportunity

The City of Dubuque was committed to reducing its impact on the environment while still delivering the services its residents needed. The city and its citizens had limited insight into their water consumption and management, and as a result the city struggled to reduce water costs and its overall consumption footprint. Without accurate information on resource distribution and consumption, and a way to enlist the help of its citizens, the city found it difficult to act on its commitment to sustainability and to alter citizen behavior.

SUSTAINABLE DUBUQUE
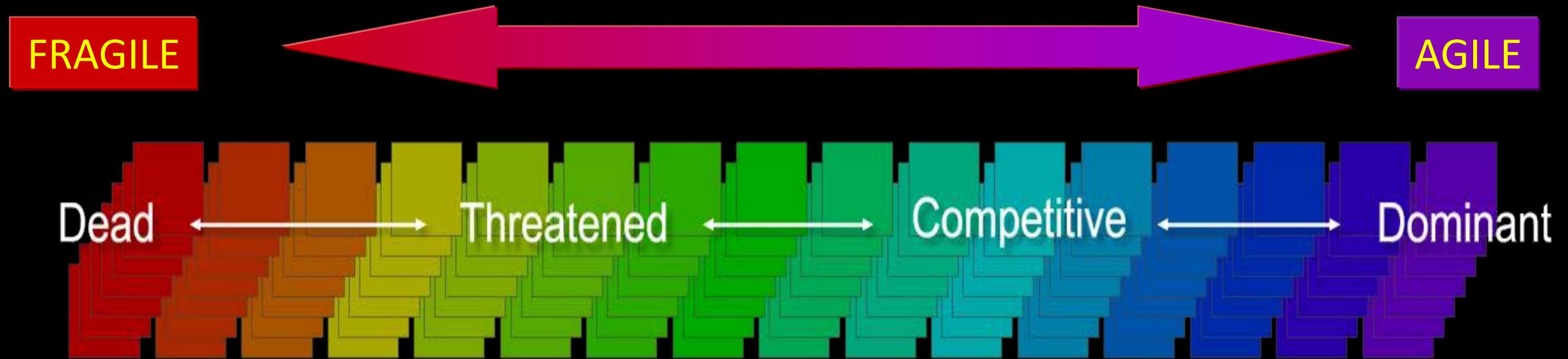*viable • livable • equitable*

Solution Components

- IBM® Cognos® 8 BI
- IBM DB2® 9.5 for Linux UNIX and Windows®
- IBM InfoSphere® Information Server
- IBM Tivoli® Access Manager WebSEAL
- IBM WebSphere® Application Server
- IBM Business Partner Esri

What Makes It Smarter

Governments are increasingly striving to realize the economic as well as the environmental benefits that come from reducing energy and resource usage. To achieve these benefits, the City of Dubuque built a prototype platform for real-time sustainability monitoring that provides an integrated view of the city's energy management. The initial pilot project provides insight into water consumption behavior and trends for citizens, city policy makers and the city water department. Monitoring water consumption every 15 minutes, the smarter meter system securely transmits that anonymous data along with information on weather, demographics and household characteristics to the cloud, where it is analyzed. The system quickly and automatically notifies households of potential leaks and anomalies, providing citizens with a better understanding of consumption patterns. By offering personal water usage information expressed in dollar savings, gallon savings and carbon reduction, the city encourages its residents to alter patterns of behavior, conserve water and save money.

Real Business Results

- Decreased water utilization during the pilot project by 89,090 gallons among 151 households over nine weeks – a 6.6% reduction
- Anticipated aggregate annual community-wide water savings across 23,000 households to be 64,944,218 gallons, or $190,936
- Increased water leak detection by participating citizens at a rate of 8% compared to 0.98% citywide, a 716% increase
- Reduced the city's overall carbon footprint by helping citizens use resources more efficiently

"Today, municipalities and citizens more than ever need to understand their patterns of behavior and how to change them. Our citizens now have access to real-time data enabling them to alter their patterns of behavior, which will save them money and conserve a precious resource."

— Roy D. Buol, Mayor of Dubuque

http://www.youtube.com/watch?v=Nm0d6frOuWs

Thank you!