

# SMART Community

Specific Measurable Achievable Results in Time

Science, Technology, Engineering and  
Mathematics Society

October 12, 2010

# About Polyvision ENO.....,

- This is not about Polyvision (for that click the title)
- I recommended Polyvision last month because I saw STEM interest in using instructional technology.
- Polyvision does everything a SmartBoard™ does - and – it's less proprietary, more durable, and can be used at Libraries. (you can check out a stylus)
- A Polyvision Smartboard is just a tool in a bigger and more encompassing framework I'd like to discuss.
- IMOHO - Polyvision is potentially the digital pedagogical equivalent of [two turn tables](#) and [a microphone](#). (more later)

# Public Education is Broken

- No, I'm not now, nor have I ever been Waiting for Superman
- The problems of which I speak are systemic in nature – and bound up with what Berners-Lee has done to Gutenberg
- Beyond that developmental challenge, there are myriad people/places our brick and mortar model simply can't reach anymore.
- Including our own children right here at home

# Even Rupert Murdoch Gets This!

- In the existing system, we have incentives for almost everything unrelated to performance (seniority, tenure, etc.) and zero incentive for adapting new technologies that could help learning inside and outside the classroom. On top of it all, we have chancellors, superintendents and principals who can't hire and fire based on performance.
- **We have tougher standards on "American Idol."** And so long as we refuse to measure success by what our children are learning, we're going to have higher performance standards for pop stars than for public schools.
- *Mr. Murdoch is chairman and CEO of News Corporation, which owns The Wall Street Journal. This article is adapted from his remarks this week to the Media Institute in Washington, D.C.*

# The Hippest Trip in America

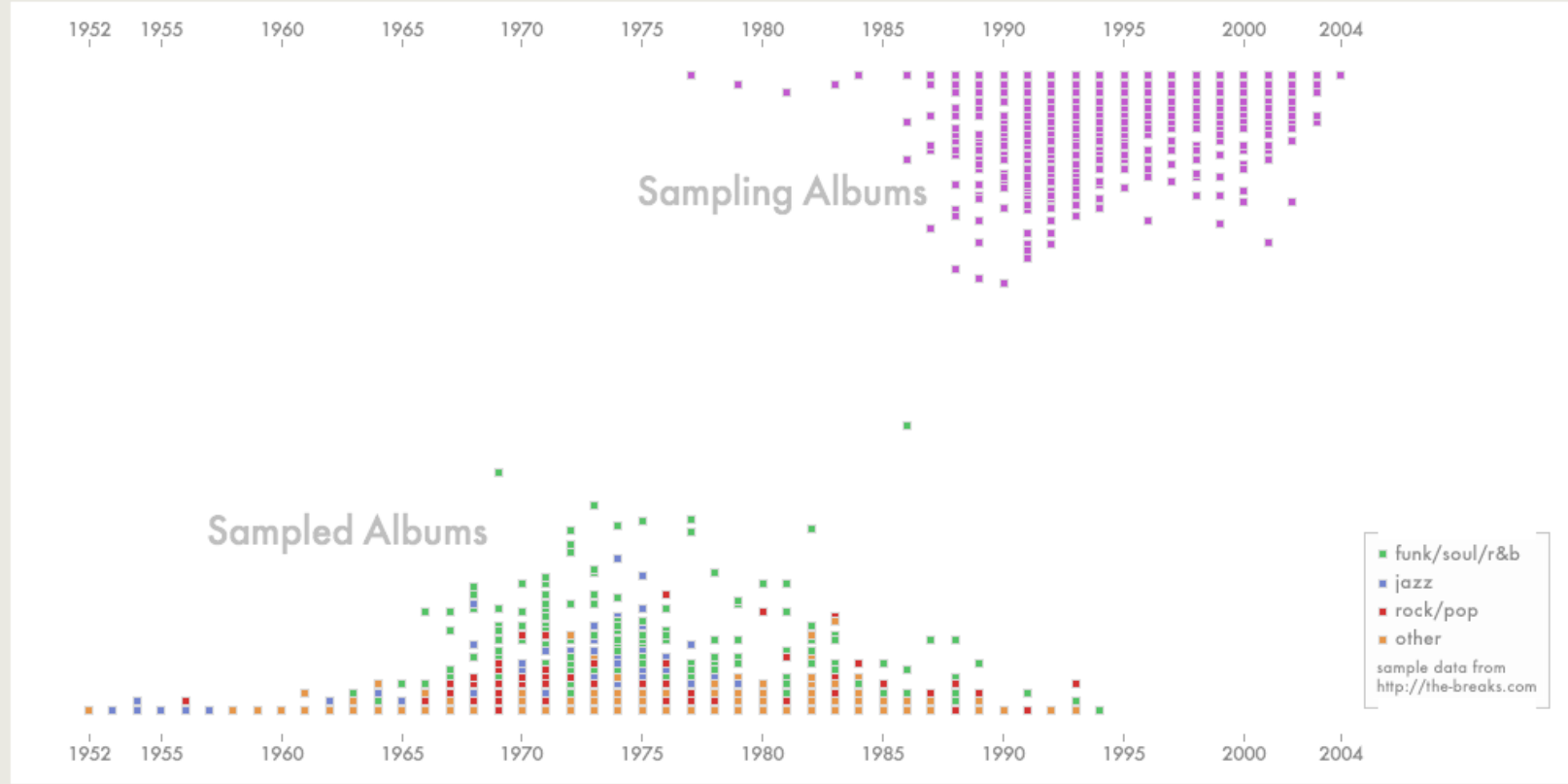
- Click the link above
- Watch the video and take the lesson
- Don Cornelius didn't invent the essential components that made [Soul Train](#) successful.
- He shamelessly copied American Bandstand
- Pam Brown showed him how to harness youth culture in an unprecedented way.
- He was a brilliant and LUCKY [impresario](#) – whose work laid the foundations for Hip Hop Culture

# The Pillars of Hip Hop

- **Hip hop** or **Hip-Hop** is an artistic culture that originated in the 1970s in [New York City](#).<sup>[1]</sup> DJ [Afrika Bambaataa](#) outlined the four pillars of Hip-Hop Culture: [MCing](#), [DJing](#), [b-boying](#), and [graffiti writing](#).<sup>[2][3][4][5]</sup>
- Since first emerging in the [South Bronx](#), Hip-hop culture has spread around the world.<sup>[6]</sup> [Hip-hop music](#) first emerged with disc jockeys creating rhythmic beats by [looping](#) breaks (small portions of songs emphasizing a percussive pattern) on two turntables, more commonly referred to as [sampling](#). This was later accompanied by "rap", a rhythmic style of chanting or poetry presented in 16 bar measures or time frames, and beatboxing, a vocal technique mainly used to imitate percussive elements of the music and various technical effects of hip-hop DJ's. An original form of dancing and particular styles of dress arose among fans of this new music. These elements experienced considerable refinement and development over the course of the history of the culture.

# The History of Sampling

The History of Sampling v1.3



# Rupert Murdoch REALLY Gets This!

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# Software Evolution Storylines



# What are Social Network Effects?

- Some very exciting research in the field of [social networks psychology](#), could revolutionize the way collective endeavors are framed for consumption/participation by a mass audience. The latest study, by [Dr. Nicholas Christakis](#) of **Harvard Medical School**, and [James Fowler](#) of the **University of California, San Diego**, reports on the social network effect factors involved with behavior change.
- The social network effect is at work not just in the halting of negative behaviors, such as smoking or unhealthy weight gain, but also in the spreading of positive life changes such as energy efficiency.

# Emergent Power of Collaboration

- A. Companies can design and assemble service relationships with their customers, and in some cases **customers can do the majority of the value creation.**
- B. Traditionally passive buyers of editorial and advertising content **take active, participatory roles in value creation.**
- C. This business strategy is one in which masses of consumers, employees, suppliers, business partners, and even competitors **co-create value** in the absence of direct managerial control.
- D. It is an ~~economic~~ **educational** democracy in practice.

# Why SMART Community™?

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## GRAPHITI

### Follow the Flow

THE TRAIL OF U.S. ENERGY—WHAT WE USE, AND HOW WE WASTE IT

If you tried to get an all-embracing view of energy use in the United States, it wouldn't take long for your eyes to go blurry. The Energy Information Administration and other sources release reams of data almost constantly. That's good if you want to look at minute detail, but not so good if you want the big picture.

Based on a version originally created by researcher David Bassett for the Woodrow Wilson Center, this energy flow map reveals the energy sources we draw from, the ways we use that energy, and the ways we waste it. Two elements are perhaps most striking, as boxes left, the relatively paltry contribution of renewables; and at far right, the staggering amount of energy lost as heat. On its own, this lost energy could satisfy the total demands of an industrialized nation like Japan or Germany.

Bassett created his first map of this kind in December 1990, while working in the pollution prevention division of the U.S. Environmental Protection Agency. When asked to update it to illuminate the current debate over energy policy, he jumped at the chance—but was dismayed when he compared the results with what he'd found two decades ago. "Aside from an increase in scale, they look much the same," he said. "It's sobering to realize how little we've been able to do to put this lost heat to use." —Matt Mahoney

**FUEL SUPPLY**  
Fossil fuels continue to satisfy nearly all of the United States' energy demands. The potential for renewables to replace these fuels isn't nearly as realized.

**SECTOR DEMAND AND END USES**  
Nearly half of the nation's primary fuel supplies used to generate electricity. The rest is used to power vehicles and heat buildings, and as feedstocks for the chemical industry.

**WINS AND LOSSES**  
Most heat loss occurs during electricity generation, but a lot is also lost in internal-combustion engines. Thermoelectric devices could eventually be used to convert some of that waste heat to electricity.

**84.8% FOSSIL FUELS**

- 38.2% Petroleum
- 23.3% Natural gas
- 22.4% Coal

**8.3% NUCLEAR**

**6.7% RENEWABLES**

**0.1% IMPORTED ELECTRICITY**

**40.6% ELECTRICITY GENERATION**

**28.6% TRANSPORT**

- 28.6% Primary fuels
- 6.1% Electricity (secondary fuel)

**31.4% INDUSTRIAL**

- 20.9% Primary fuels
- 3.4% Electricity
- 7.2% Allocated waste heat from electricity generation

**17.2% COMMERCIAL**

- 3.6%
- 4.5%
- 6.6%

**21.3% RESIDENTIAL**

- 6.7%
- 4.7%
- 6.9%

**1.3% POWER DELIVERY**

- Transmission and delivery losses

**13.8% Waste heat from internal-combustion engines**

- Ground transportation
- Aircraft/marine propulsion
- Electric transport

**Industrial waste heat**

- Commercial and residential
- Feedstocks
- Steam generation, facility heating, and cooling, ventilation, lighting, and other uses
- Combined loss from electricity generation
- Heating, ventilation, cooling, and lighting
- Other uses

**44.6% WASTE HEAT**

- 17.9% Lost in conversion from chemical to mechanical energy
- 26.7% Lost in conversion from chemical to electrical energy

**65.6% UTILIZED**

- 41.6% Used directly as fuel for vehicles, feedstocks for industrial products, and heat sinks for residential and commercial buildings
- 13.9% Output as electricity from power plants

**TYPE CURRENT SUPPLY**

- Biomass 3.3%
- Hydroelectric 2.1%
- Geothermal 0.4%
- Wind 0.3%
- Solar 0.1%
- Industrial waste 0.01%

**\*Proportion of waste heat attributed to the generation of electricity for mechanical work.**

**Note: Energy conversion efficiencies based on gross heat rate (BTU/gross kilowatt-hour). Because of rounding and other reasons, these source figures do not necessarily add to 100%.**

**Source: DOE's Energy Information Administration. Revision energy graph by David Bassett for the Woodrow Wilson Center's International Center for Science and the Environmental Law Institute.**

Informational graphics by TOMMY MCCALL and DAVID BASSETT

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# What is Smart Community™

The Distance Learning Environment in the Smart Community™ proposal is an online vehicle to facilitate continuity, communication, collaboration, and competition among children participating in the Energizing Young Minds curriculum.

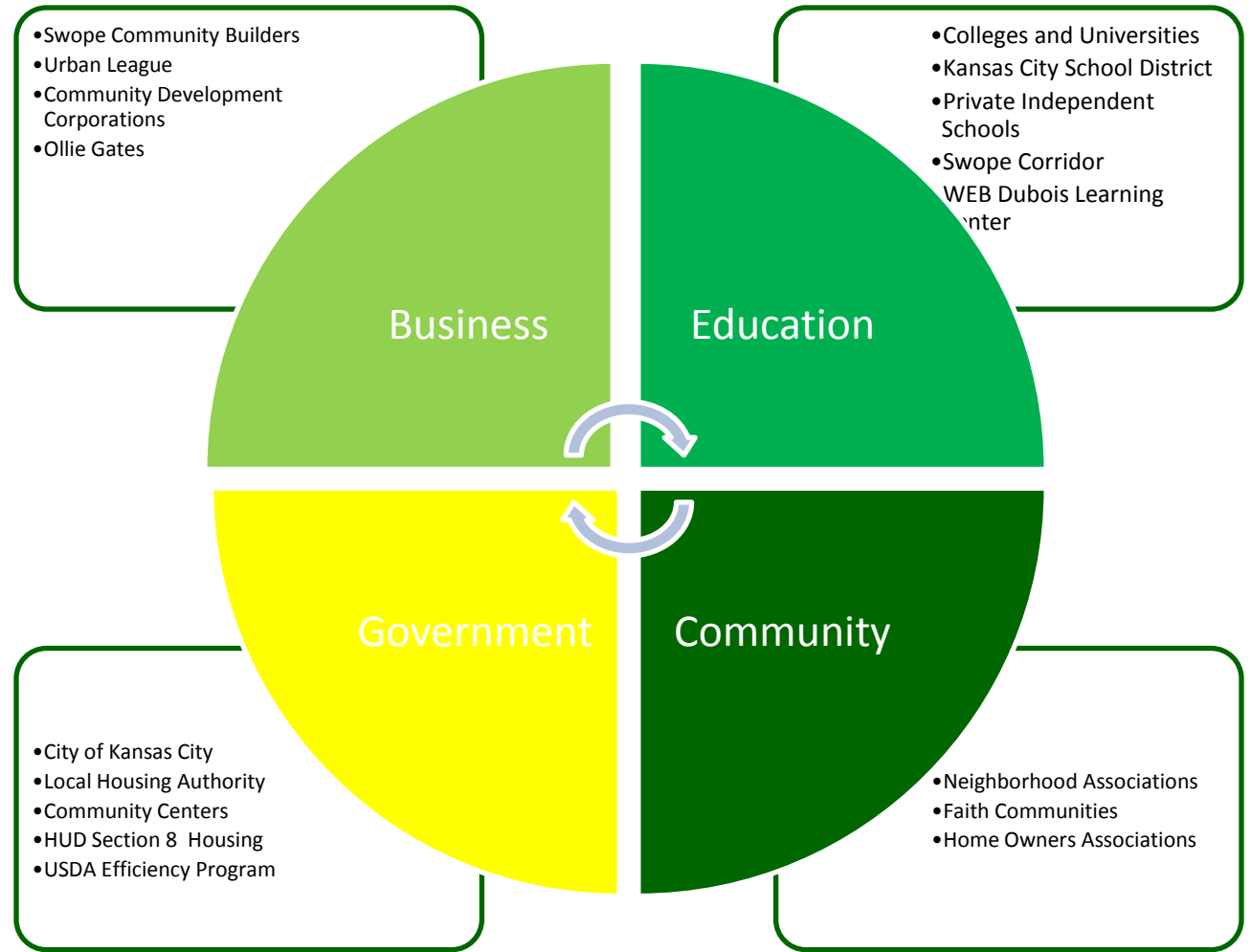
- Google map visualizations will serve as a centerpiece of web presentation of the Smart Community™ process.
- When children see the results that their efforts produce it will promote their continuing enthusiasm and effort.
- When a community sees the results obtained from the efforts of its children – it will create significant value for both the utility and the community which it serves.
- When the general public sees the results obtained in a community focused on positive change, it will create an enduring mutual purpose brand.

# Community Outreach Initiatives and Channels

## Basic Awareness – Communities of Practice

### Information Proliferation

- **Awareness** – Introducing the community to the issues and the available solutions
- **Lesson Study** - Solving practical issues in energy and water management through examining practice
- **Technical Assistance** - Assisting individuals and organizations to improve by offering resources and information
- **Consultation** - Assisting individuals and groups of individuals to clarify and address immediate concerns
- **Coaching** – Enhancing individual and group competencies in a specific skill
- **Mentoring** - Promoting individual awareness of professional development by providing structured opportunities
- **Reflective Supervision** – Developing and evaluating the performance of service providers
- **Communities of Practice** - Supporting networking and change efforts among groups who have a common goal



### Energy Efficiency Competition

The key to accelerating public acceptance and adoption of a comprehensive energy efficiency regimen – is to attractively pitch its benefits at a 4<sup>th</sup> grade comprehension level – and then induce school children city-wide to evangelize their parents on the program via a community-wide efficiency improvement contest.

# Community Outreach Initiatives and Channels

## 1.Awareness -2.Education – 3.Competition

### LAUNCH PHASE LEARN GREEN-CONTEST

In This Phase We Implement Programs And Workshops For Community Outreach And Education Through:

- K-12 Schools (Learn Green) -Smart Communities™
- Colleges And Universities(be Green) -Smart Communities™
- Neighborhood Associations (Live Green)-smart Communities™
- Businesses (Work Green) -Smart Communities™

### LAUNCH 2<sup>ND</sup> TIER EDUCATION WORKSHOPS/KICKOFFS THROUGH COMMUNITY OUTREACH:

- Business Associations
- City Of Kansas City
- Churches
- Swope Corridor
- Green Building Council
- Political Organizations
- Community Development Corporations
- Networking Groups
- Large Department Stores (Lowes/Home Depot)
- Non-profit Organizations
- Larger Local Employers (Large Corps)

### LAUNCH 3<sup>RD</sup> TIER OUTLET- HUD (SECTION 8 HOUSING)

Partnership With HUD To Lower Consumption In Section 8 Homes. HUD Currety Has A Contractors and Property Owners Initiative To Go Green And Save Money.

## Education

- Colleges and Universities
- Kansas City School District
- Private Independent Schools
- Swope Corridor
- WEB Dubois Learning Center

### CHILDREN, CLASSES, SCHOOLS K-12 (OUR SALES TEAM)

- Individual Students
- Classes
- Schools

### LAUNCH COUMMUNITY OUTREACH INTERNSHIPS WITH KCP&L

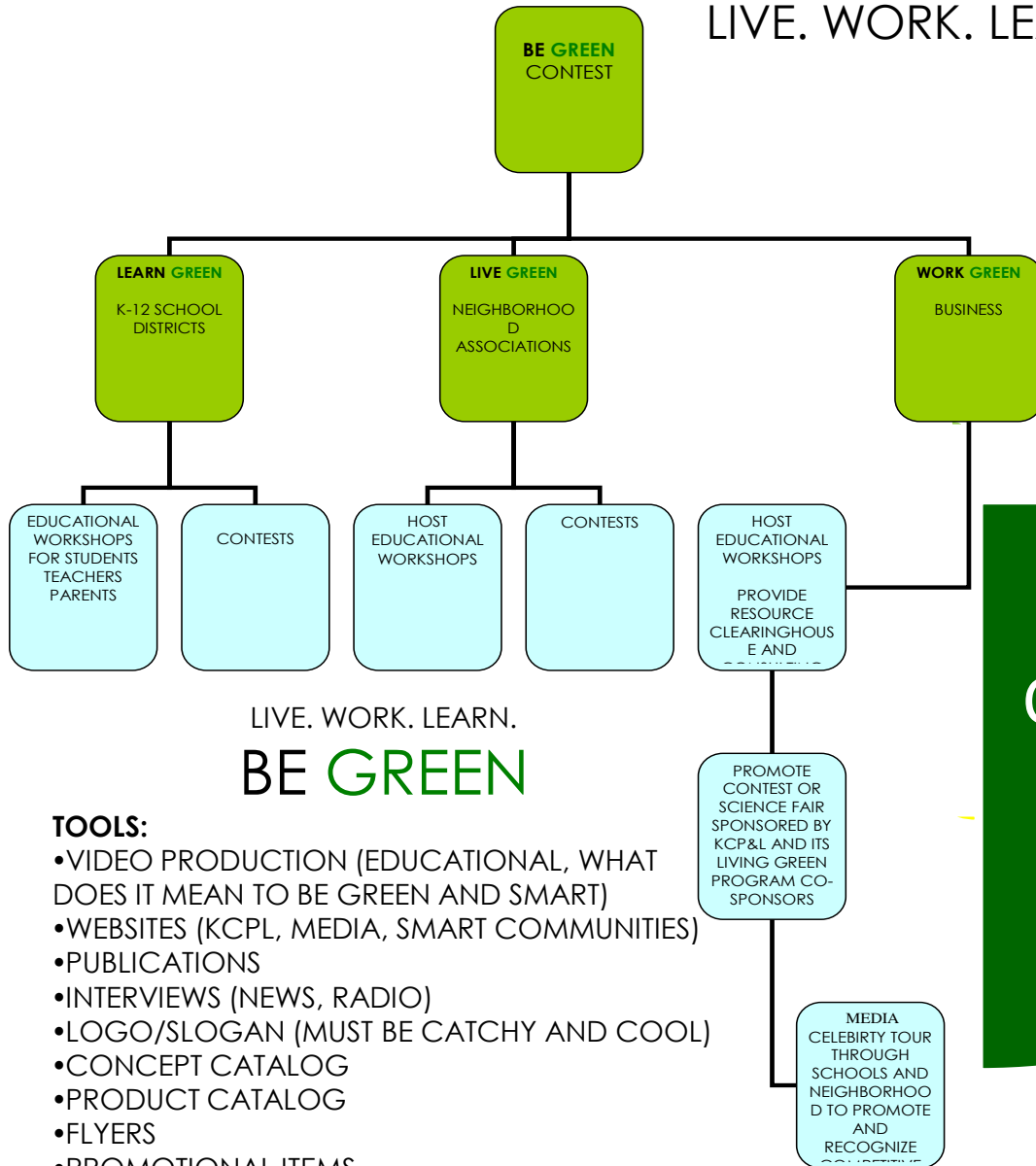
For College & High School Students

### COLLEGES AND UNIVERSITIES

- Promotions
- Independent Studies (Data Collection)
- Conduct Educational Workshops

# Community Outreach Initiatives and Channels

# LIVE. WORK. LEARN. BE GREEN



## PHASES

1. GUERILLA
2. MEDIA 2-1) NEWS 2-2) EDUCATIONAL
3. LAUNCH
4. DOCUMENT
5. GUERILLA

ALL MARKETIGN EFFORTS SHOULD BE OR INCLUDE SOME TYPE OF ECO FRIENDLY COMPONENT, I.E. RECYCLED PAPER FOR DIRECT MAILING CAMPAIGN

## Community

- Neighborhood Associations
- Faith Communities
- Home Owners Associations

## TOOLS:

- VIDEO PRODUCTION (EDUCATIONAL, WHAT DOES IT MEAN TO BE GREEN AND SMART)
- WEBSITES (KCPL, MEDIA, SMART COMMUNITIES)
- PUBLICATIONS
- INTERVIEWS (NEWS, RADIO)
- LOGO/SLOGAN (MUST BE CATCHY AND COOL)
- CONCEPT CATALOG
- PRODUCT CATALOG
- FLYERS
- PROMOTIONAL ITEMS
- CONCERTS & PARTIES

# Community Outreach Initiatives and Channels

## Information Service – HR-Block of Energy Efficiency

- HUD Section 8 Housing
- USDA Efficiency Program
- State of Missouri
- City of Kansas City
- Local Housing Authority
- Community Centers

Government

### Information Proliferation

With cyber-security in 1995 – there was a vast wealth of federal information available from NIST and other sources. Most of it had never seen the light of day in the private sector. Such is the case with energy-efficiency in 2008. USDA, HUD, DOE and others have compiled a wealth of information – most of which has never yet see the light of day.

### Energy Efficiency Resource Clearinghouse

The USA [National Institute of Standards and Technology \(NIST\)](#) is a non-regulatory federal agency within the [U.S. Department of Commerce](#). The NIST Computer Security Division was re-organized in the 90's to develop standards, metrics, tests and validation programs as well as publishes standards and guidelines to increase secure IT planning, implementation, management and operation.

There is no comparable federal, state, or municipal resource addressing itself to the challenge of providing an information clearinghouse for energy efficiency **assessment planning, implementation, management and operation**. Yet, there are numerous agencies, states, and municipalities which have independently created significant portions of just such a comprehensive approach. The Smart Community™ partnership can simply harvest, consolidate, index, and re-present this wealth of information along with expert assistance on its interpretation and use.

[Office of Energy Efficiency and Renewable Energy](#)

[Rebuild America](#)

[Community Energy](#)

[Office of Building Technology, State, and Community Programs.](#)

[Federal Energy Management \(FEMP\)](#)

[Energy Savers](#)

[Industrial Technologies Program](#)

- [Best Practices](#)
- [Industrial Assessment Centers](#)
- [NICE3](#)

[Office of Power Technologies](#)

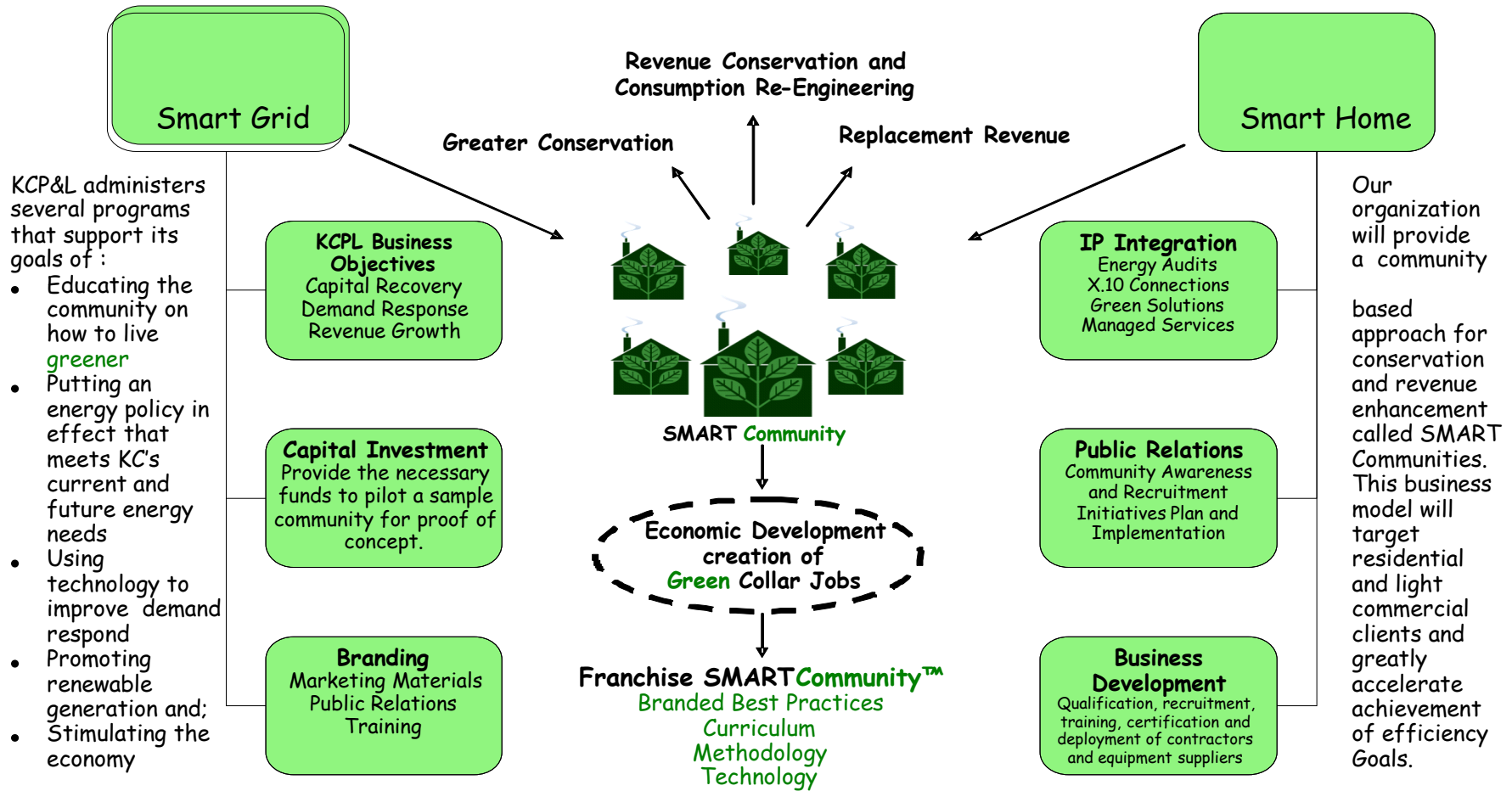
[Distributed Energy Program](#)

[Solar Energy Technologies Program](#)

[Powerful Savings](#)

# Branding And Standardization To Achieve First Mover Advantage

## Partnership for SMART-Communities™



Kansas City acquires **FIRST MOVER ADVANTAGE** with significant and unprecedented revenue opportunities outside its existing base

# Benefits and Next Steps

## Branding And Standardization To Achieve First Mover Advantage Nationally

