



# Home Energy Score

Joan Glickman, U.S. Department of Energy

# Home Energy Score – An “MPG” for Homes

U.S. Department of Energy created **nationally standardized** “miles-per-gallon” home score

## What’s the Value?

- ✓ Offers homeowners **affordable, reliable, easy** way to understand homes’ energy performance
- ✓ Available at **no-cost** to program providers
- ✓ Intended to **motivate homeowners** to invest in residential energy efficiency
  - Simple and action-oriented
  - Ability to document investment in energy efficiency using the post-improvement score
  - Exposes “**hidden**” value (e.g. insulation)



# Implementation Highlights

- ✓ More than 34,000 homes scored since 2012
- ✓ 245 Active Assessors
- ✓ Score easily integrated into existing residential programs and other services
  - Simple data collection mechanism
  - Useful analytical tool for program administrators and utilities
- ✓ Homeowners understand the simple 1-10 scale
- ✓ Statewide adoption
  - AL, AR, CO, CT, MO, OR, VT with others exploring adoption (e.g. MA, NH, NY, RI)
- ✓ Local governments using the Score in disclosure policies (City of Berkeley)
- ✓ Score on a growing number of MLSs

HOME ENERGY SCORES  
COMPLETED

33937

*As of January 31, 2016*



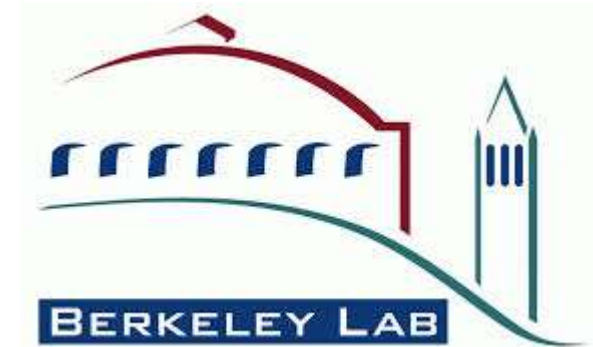
# 2015 Training and Testing Opened the Market to More Assessors (e.g. Home Inspectors)

- ✓ This 3-D Tool developed with significant input from outside experts & practitioners.
  - Uses computer-based simulations to recreate a range of job-site scenarios.
- ✓ DOE conducted in-classroom/in-the-field validation study
  - Confirmed effectiveness of simulation tool in determining a candidate's competency to deliver the Home Energy Score.
- ✓ DOE now recognizes certifications from many different building-related organizations.
- ✓ As a result...Many more building professionals are now be able to offer the Score.



# Application Programming Interface (API)

- ✓ Third-party software companies can license the Home Energy Score API to build applications that exchange data with the tool
  - Use API and avoid double data entry
- ✓ Software companies/organizations that completed API integration:
  - Cake Systems, EnergySavvy, EnergySoft, Home Inspector Pro, Optimizer, PSD/TREAT, United Illuminating, Spirit
- ✓ Others evaluating or about to complete API integration
  - Snugg Pro, CLEAResult



Images courtesy Richard Szydlowski,  
Minnesota Center for Energy and Environment

# New FHA Policy Incentivizes Use of the Score

## Tying the Score to Financing

- ✓ New FHA Mortgagee Letter (September 2015) allows lenders to provide a 2% stretch on debt-to-income ratios for borrowers purchasing or refinancing a home
- ✓ Home must score 6 or higher
- OR
- ✓ Borrower must demonstrate that they are taking action to improve home's score to 6 or higher

2%





# Semi-Customizable Label, Available Spring 2016



- DOE will work with interested states to do a semi-custom label
- If a state wants a fully custom label, they can work with a software provider to create that and populate it with Home Energy Score data (and other data if it's part of their program)
  - ✓ The software provider or state partner would be required to use an API to send the final version of each label to DOE/PNNL for storage in our data repository
  - ✓ DOE needs to review final label design to ensure consistency with DOE requirements for use of its logo and data

# Comparing New & Existing Homes

- Create a “translator” between Home Energy Score, HERS, other scores to generate consistent metrics (e.g., estimated energy costs, MBTU)
- Transition to EnergyPlus







# Home Energy Information Accelerator

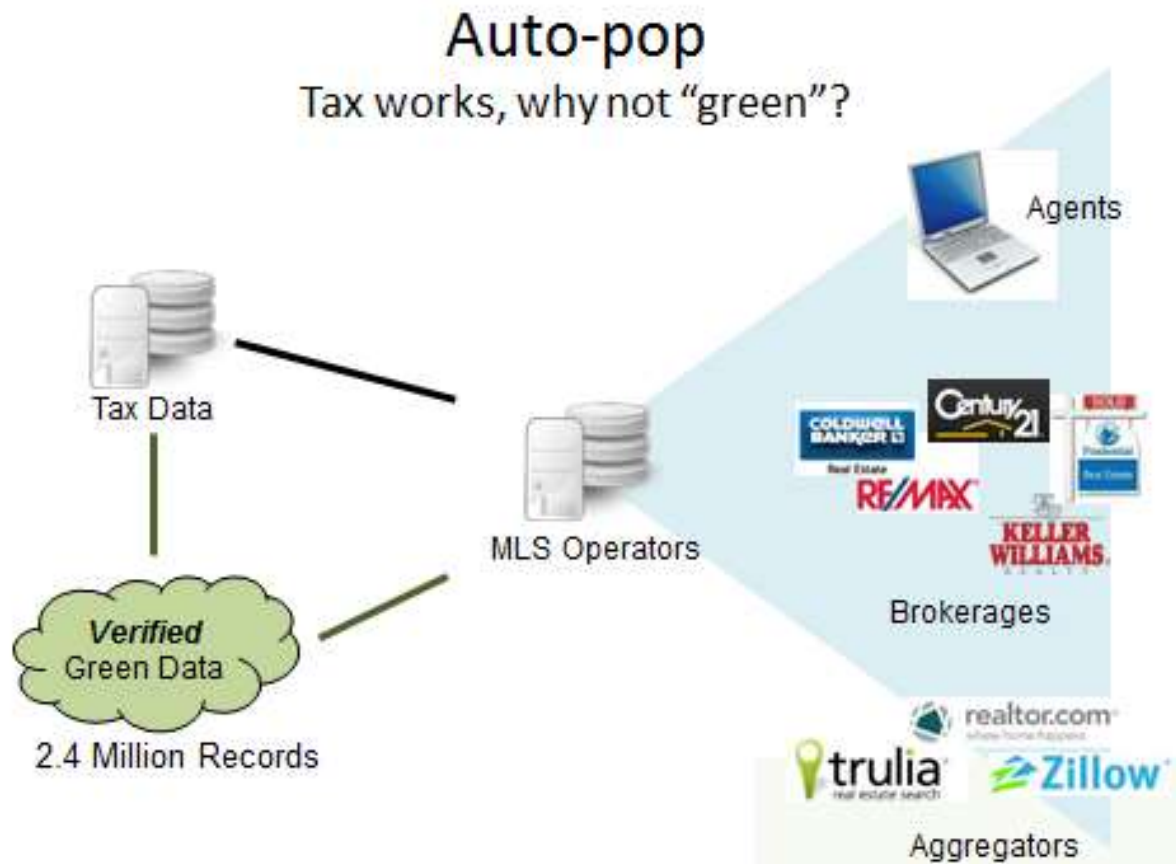
Joan Glickman, U.S. Department of Energy

Laura Stukel, Elevate Energy

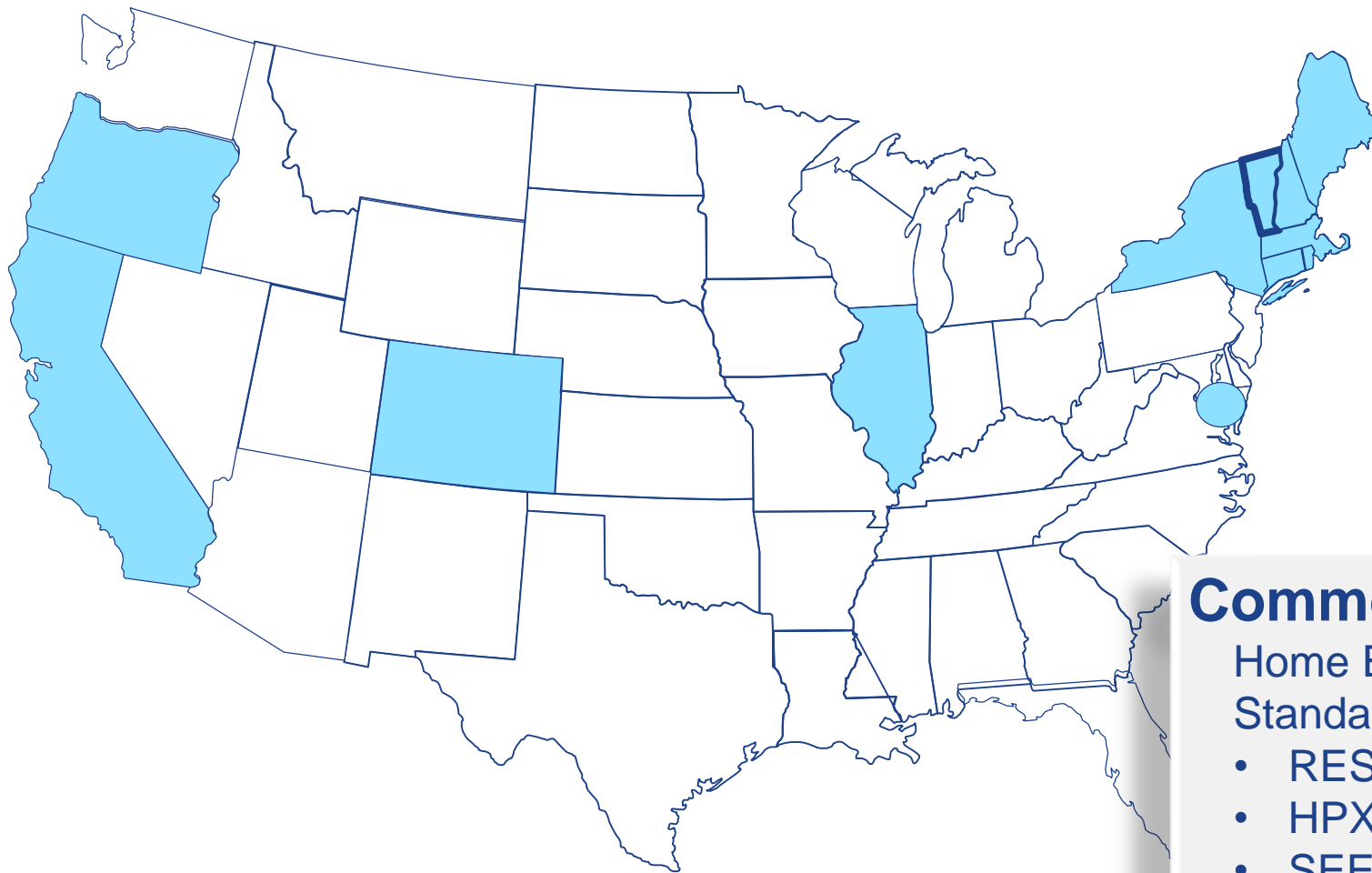
# Why a Home Energy Information Accelerator?

## Two Goals:

- Grow the number of verified records with home energy information
- Use home energy information in new and exciting ways



# Local Partners Focused on Innovations



## Commonalities

Home Energy Score  
Standards:

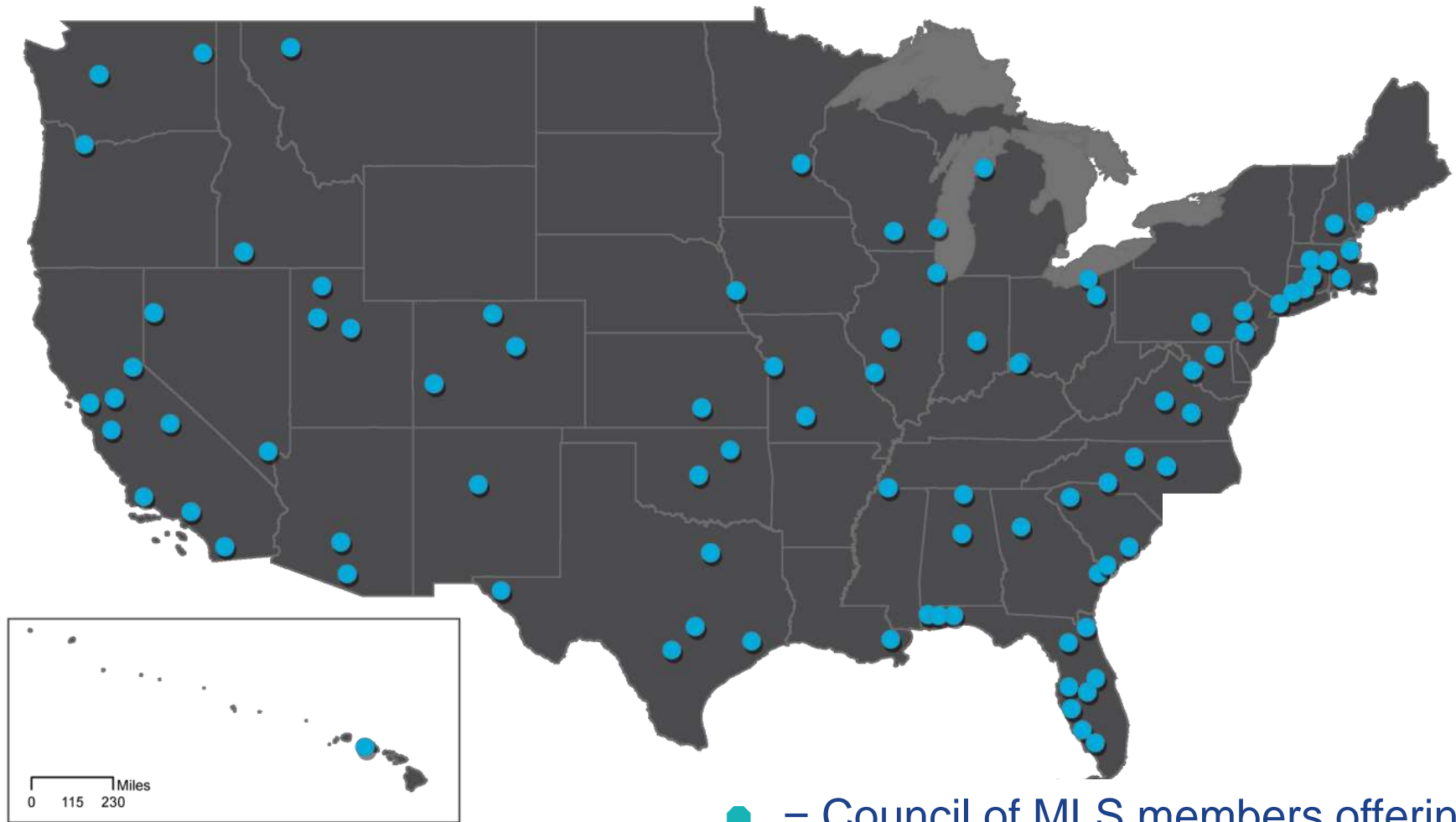
- RESO
- HPXML
- SEED

# Breakthroughs by working with Non-Traditional National Partners

## Sample Partners

- Appraisal Institute
- CoreLogic
- Council of MLS
- Homes.com
- NAR Center for REALTOR Technology
- Real Estate Standards Organization
- Realtors Property Resource LLC

# Real Estate Industry is Primed for Home Energy Info



● = Council of MLS members offering Home Energy Info fields



# Real Estate advancing study of NEB – *but it's called "Joy"*

**REALTOR®**  
The Business Tool for Real Estate Professionals

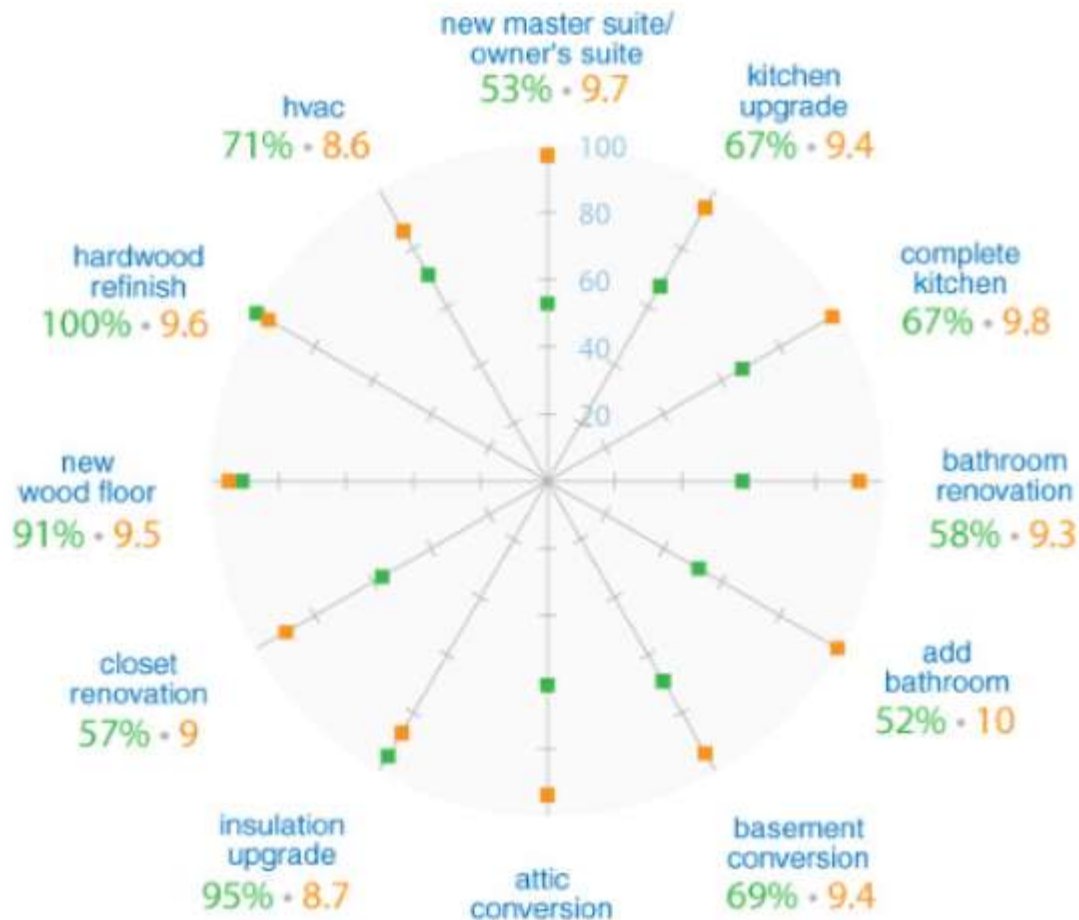
## 2015 Remodeling Return Vs. Joy Score

Twenty remodeling and repla

As part of the survey, homeowners expressed satisfaction from seeing their own REALTOR® opinions of how much c

### All Interior Projects

Recovered Percentage of Original Cost • Joy Score






# Real Estate advancing study of NEB – *but it's called "Joy"*

remodeling  
**COST** **Vs** **VALUE**


Midrange PROJECT	2016 National Averages		
	JOB COST	RESALE VALUE	COST RECOUPED
Attic Insulation (fiberglass)	\$1,268	\$1,482	116.9%
Manufactured Stone Veneer	\$7,519	\$6,988	92.9%
Garage Door Replacement	\$1,652	\$1,512	91.5%
Entry Door Replacement (steel)	\$1,335	\$1,217	91.1%
Minor Kitchen Remodel	\$20,122	\$16,716	83.1%
Entry Door Replacement (fiberglass)	\$3,126	\$2,574	82.3%
Siding Replacement (engineered)	\$13,832	\$10,866	78.6%
Deck Addition (wood)	\$10,471	\$7,850	75.0%
Siding Replacement (vinyl)	\$12,341	\$9,032	73.2%

# Innovations in Delivering Home Energy Info



**My MLS** **Search** **Listings** **Reports** **Forms**

### Search Results - Attached Single



**Detached Single**  
Status: **NEW**  
Area: **8021**

List Date: **06/26/2013**  
List Dt Rec: **06/26/2013**  
List Price: **\$399,900**  
Orig List Price: **\$399,900**  
Sold Price:

Directions: **Diversey West to Rockwell, North to Property**

Sold by:  
Closed:  
Off Market:  
Year Built: **1920**  
Dimensions: **27.5x125**

Contract:  
Financing:  
Blt Before 78: **Yes**

Lst. Mkt. Time: **1**  
Points:  
Contingency:  
Curr. Leased: **No**

Ownership: **Fee Simple**  
Corp Limits: **Chicago**  
Coordinates: **N:2900**  
**W:2600**

Subdivision:  
Township: **North Chicago**  
Model:  
County: **Cook**  
# Fireplaces:

Rooms: **7**  
Bedrooms: **4**  
Basement: **Full**

Bathrooms **1 / 1**  
(full/half):  
Master Bath: **None**  
Bsmnt. Bath: **No**

Parking: **Garage**  
# Spaces: **Gar:2**  
Parking Incl. **Yes**  
in Price:

Utility Costs: **Elec. - \$770.60/yr, \$64.22/mo; Gas - \$1198.00/yr, \$99.83/mo**

Remarks: **CHARMING 4 BED+DEN, 1.1 BATH SINGLE FAMILY HOME ON LOT & A HALF IN DESIRABLE LOGAN SQAURE/AVONDALE LOCATION. REMODELED APPROX 10 YEARS AGO W/ NEWER HVAC, ELECTRIC, PLUMBING, H2O HEATER & ROOF. DIAG HDWD FLRS;**

Source: [MRED LLC](#)

# Results: Data Rewards Sellers, Helps Buyers

## Better Market Performance

Sample: Chicago Attached Single Family

Higher percentage of the asking price:



Source: 2015, Elevate Energy

Less time on the market:



About **one less**  
**mortgage**  
**cycle** for the  
average seller

# Moving Forward Together

## Breakthroughs

- MLS industry to standardize Green MLS fields by 2018
- RESO/BEDES mapping
- HPXML to RESO export code
- Council of MLS Green Best Practices Council
- 300,000 Homes.com listings (~10%) now populated with home energy info

# Moving Forward Together

## Tangible Opportunities for States

- Strategies that “grow the pipeline”
  - Pilots
  - Quality Assurance
- Rethinking the MLS as a utility third party service
  - What are the supporting policies?
  - What is the value proposition for the data holder?

### Top of MLS wish list:

