



# Leading Sustainable Change: NACWA 2014 Summer Conference

JULY 2014



**MWH®**

***BUILDING A BETTER WORLD***

# Leading change: Setting direction, priorities and speed of change

## Current State

### CAPEX

New Build

Designed to **Build**

Develop **Projects** to Deliver **Outputs**

**Limited Engagement** with Contractors & Operators

**Water Industry** Best Practice

**Asset** Centric

**Fragmented** Data

Multi Stakeholder **Relationships**

## Future State

### TOTEX

New Build vs. No Build

Designed to **Operate**

Develop **Solutions** to Deliver **Outcomes**

**Early & Rigorous Engagement** with Contractors & Operators

**Other Industry** Best Practice

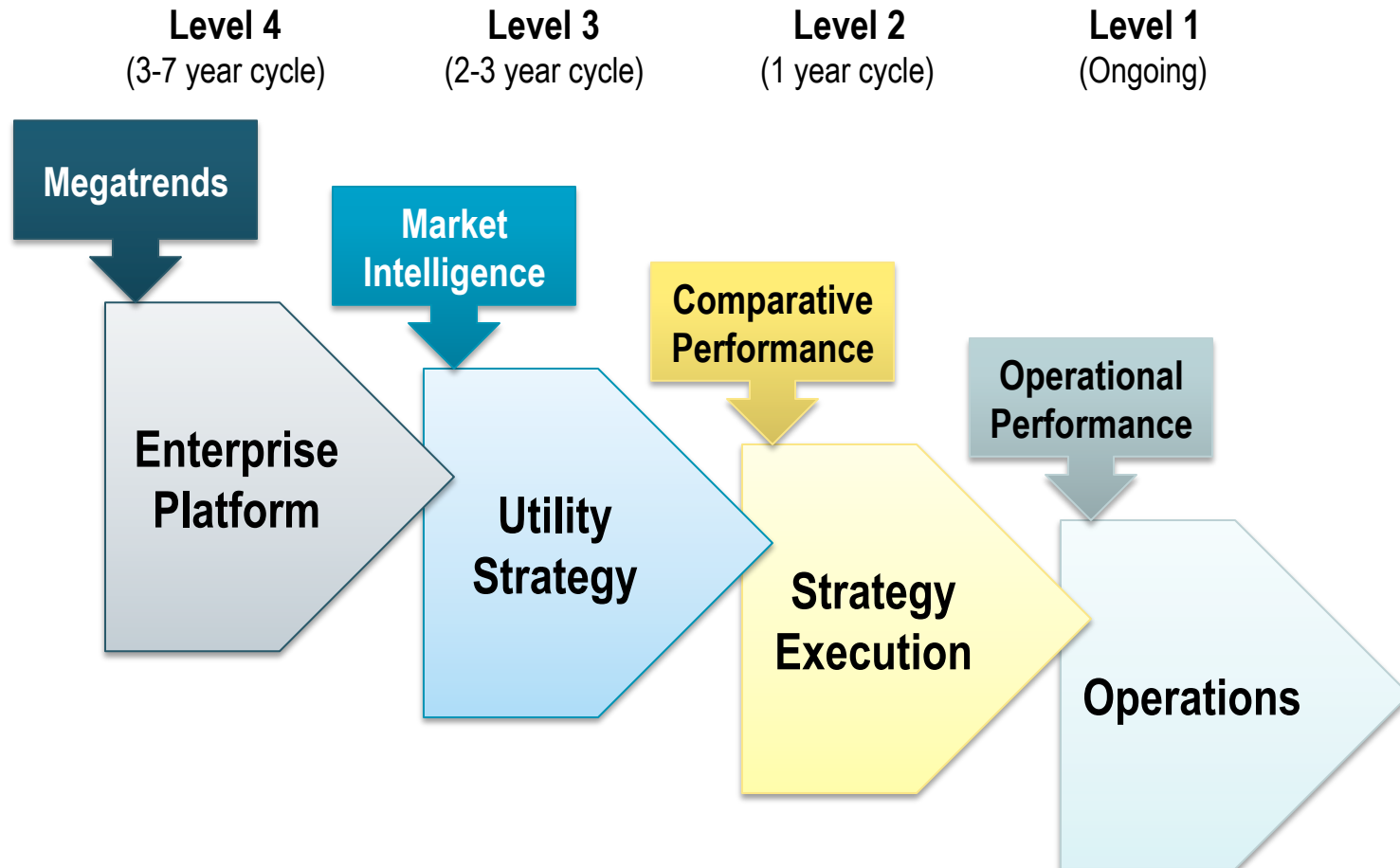
**Customer** Centric

**Consolidated** Data Management

Multi Stakeholder **Partnerships**



# Strategic leadership requires varying our levels of engagement



# Leadership makes all the difference

## **“Big Data”**

**Getting the data**

**Analyzing the data**



# Getting the “big data”

A **project approach** requires a scope, schedule and budget to be developed to address a specific IT or operational issue.

**Strategic leaders** are using a business transformation approach to get the maximum value from investments in IT tools and systems.



# Applying a business transformation approach achieves the desired outcome

## Step 1: **DEFINE**

- Why are you here?
- Establish drivers and inefficiencies

## Step 2: **MEASURE**

- What do you need to improve?
- Develop baseline metrics and problem statements

## Step 3: **ANALYZE**

- How do you improve?
- Identify a solution and plan

## Step 4: **IMPROVE**

- What are your quick wins?
- Develop a staged implementation with quick wins

## Step 5: **CONTROL**

- How do you “make it stick”?
- Embed the program and monitor the benefits



# Strategic leadership delivers a better business outcome

**Improved customer service**

**Operational savings**

**High staff engagement and adoption**



# Analyzing the “big data”

A **traditional approach** looks at what we need to know to operate and relies on existing “tried and true” model.

**Strategic leaders** ask provocative questions and challenge the current views to support decisions on what to do next.





# Example: U.S. EPA's current measure of service affordability

Average Annual  
Residential Bills



Median Household  
Income

Ignores actual bills

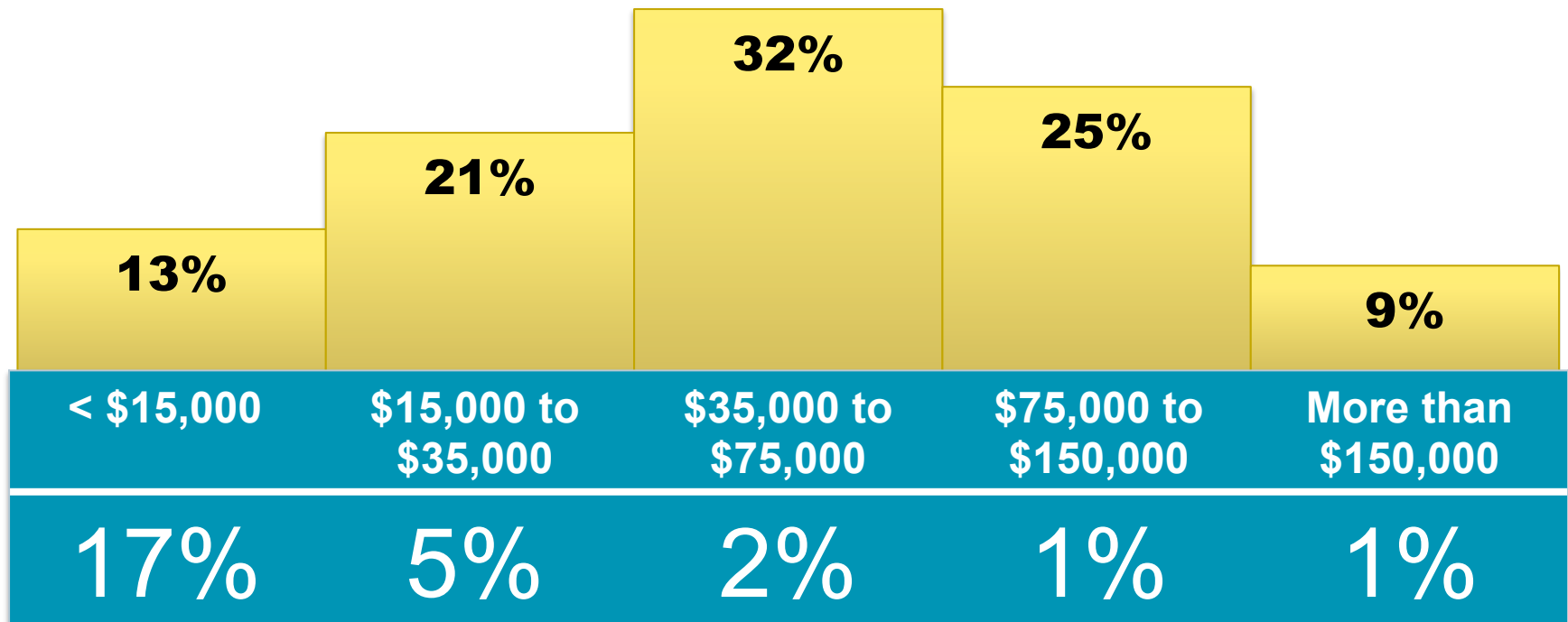
Ignores income skew

Ignores neighborhoods



# How does this calculation work?

**\$53,046 – Median Household Income (U.S.)**  
**\$1,060 – 2% of Total Median Household Income**

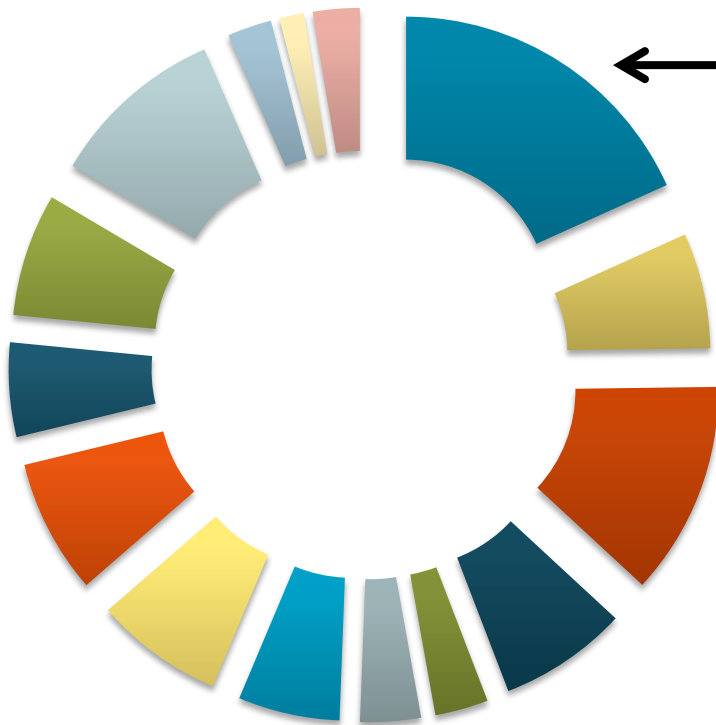


Weighted-Average Impact is about 4%<sup>10</sup>



# Better data analysis provides a better measure of affordability – WARi (Weighted-Average Residential Index)

Accounts for **income skew** and is easily **applied to “slices” of data**



1. Take the % of Population in each income bin
2. Multiply by the burden % for that bin
3. Repeat for all bins in tract
4. Repeat for all census tracts
5. Calculate average WARi for entire service area

Inside every census tract, households are segmented into 15 standardized income bins, which is already captured by the U.S. Census

# How does affordability change between the two calculations? – One city's results

Where you are with the original calculation...

**\$672**

**2.0% - Aggregate MHI**

**2.3% - Avg. MHI for All Tracts**

**3.7% - WARi Measurement**

Where you should be....

**\$598**

**2.0% - Avg. MHI for All Tracts**

**3.3% - WARi Measurement**



# Strategic leadership delivers desired outcomes at lower cost by understanding how to use data

**\$598**

**An 11% reduction from the previous target that had been set based on the EPA residential index method**

**\$7.1m**

**Annual community savings**

**\$284m**

**Lifetime community savings**



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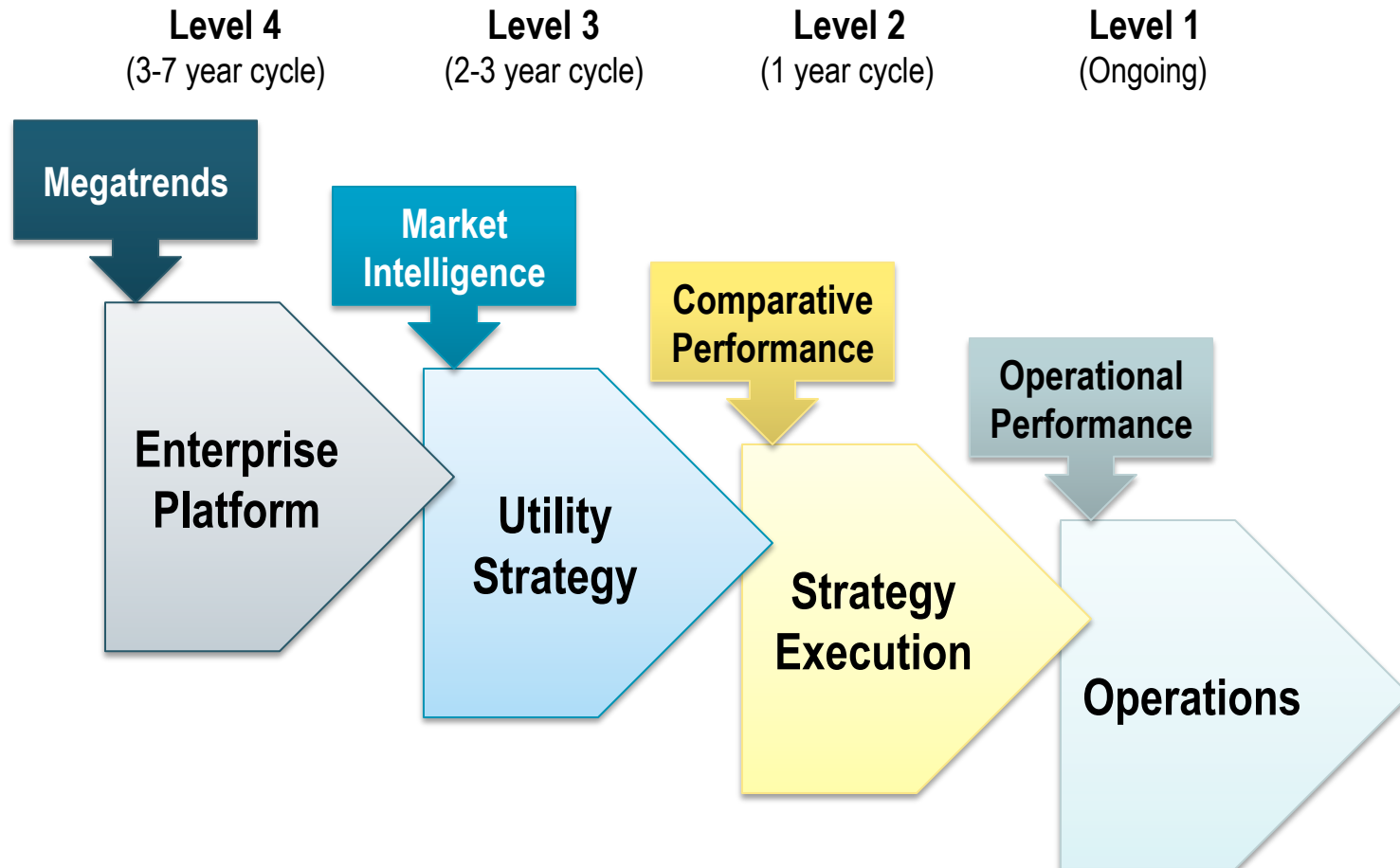
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# Strategic leadership requires varying our levels of engagement



# Overall Conclusions

**Changes in utility business**

**Requires varied levels of strategic engagement**

**Focus on direction, prioritization and speed of change**







# Thank you!

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