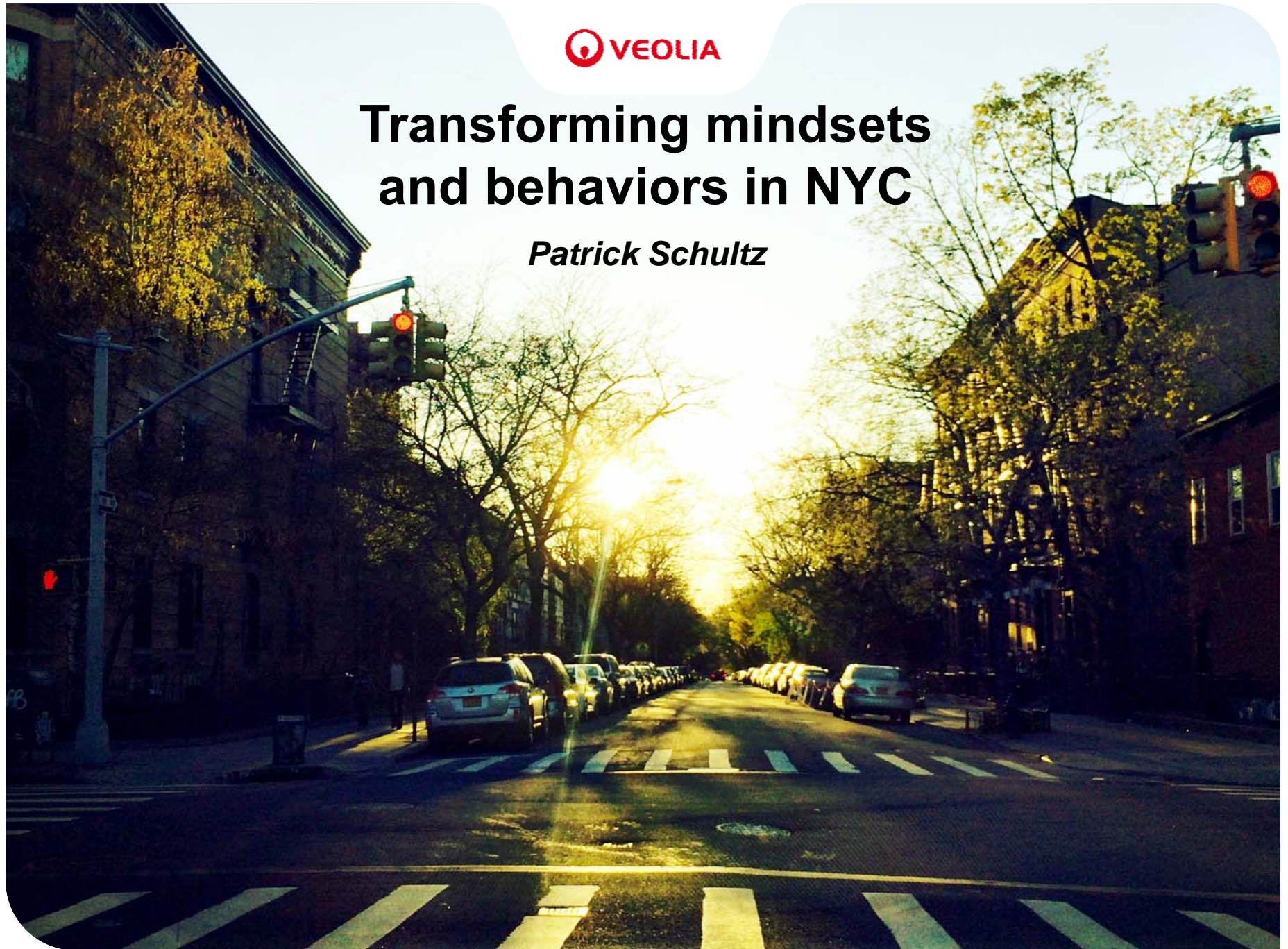




Transforming mindsets and behaviors in NYC

Patrick Schultz



The Operational Excellence program in New York City is a 4.5-year partnership between DEP and Veolia

Operational Excellence (OpX) in New York City

- *“The best always do better!”*
- *Partnership between NYC Department of Environmental Protection and Veolia North America*

Phase 1 (6 months)
Nov 2011 – May 2012

- **Operational diagnostic** across DEP’s facilities and back-office
- Identification of >100 potential savings initiative
- Implementation of **quick-wins**

Phase 2 (4 years)
Jul 2012 – Jun 2016

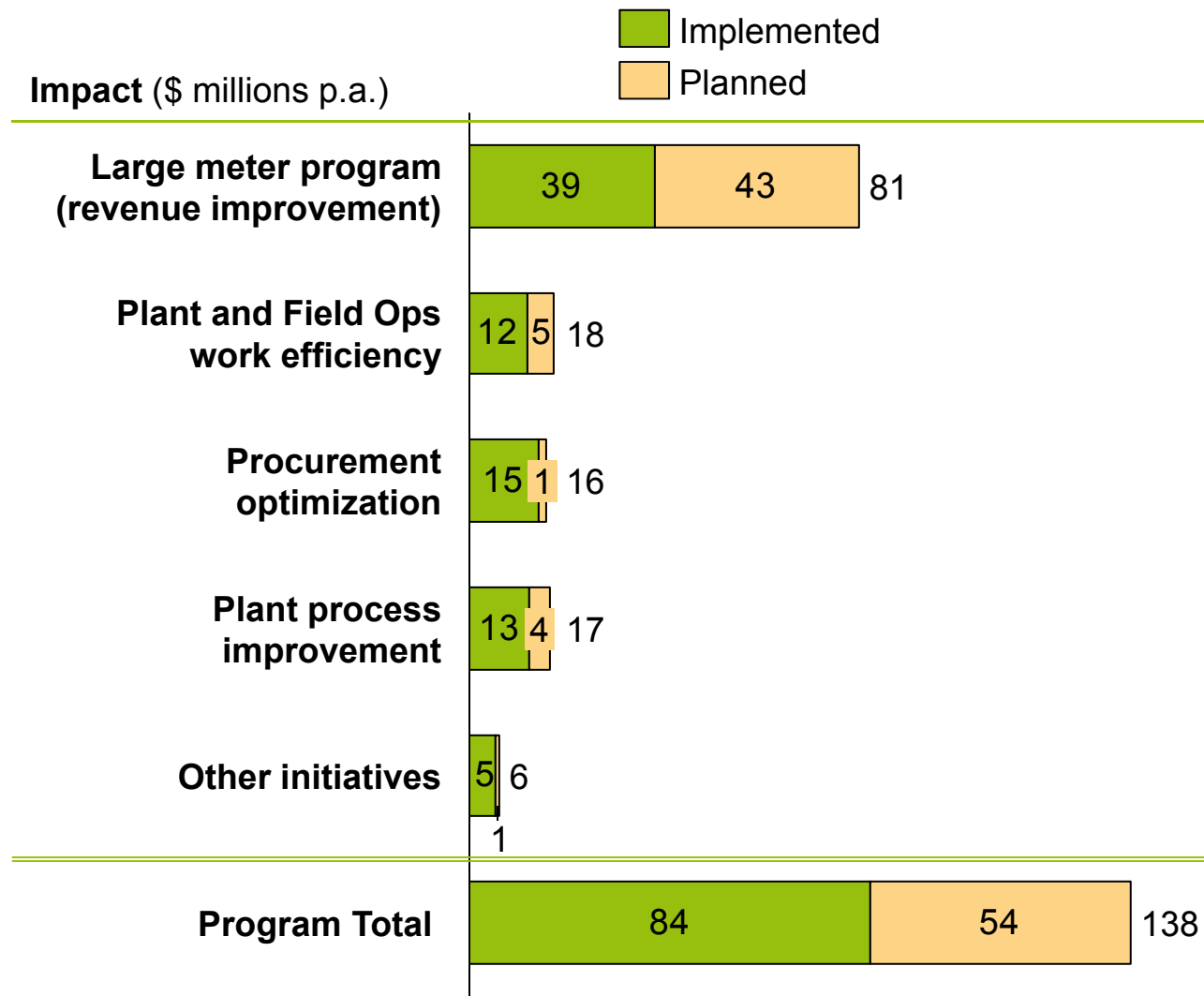
- **Implementation** of ~80 initiatives across the entire agency
- Efficiency savings and revenue generation
- **Performance-based contract** between DEP and Veolia

NYC Department of Environmental Protection is one of the largest water utilities in the US

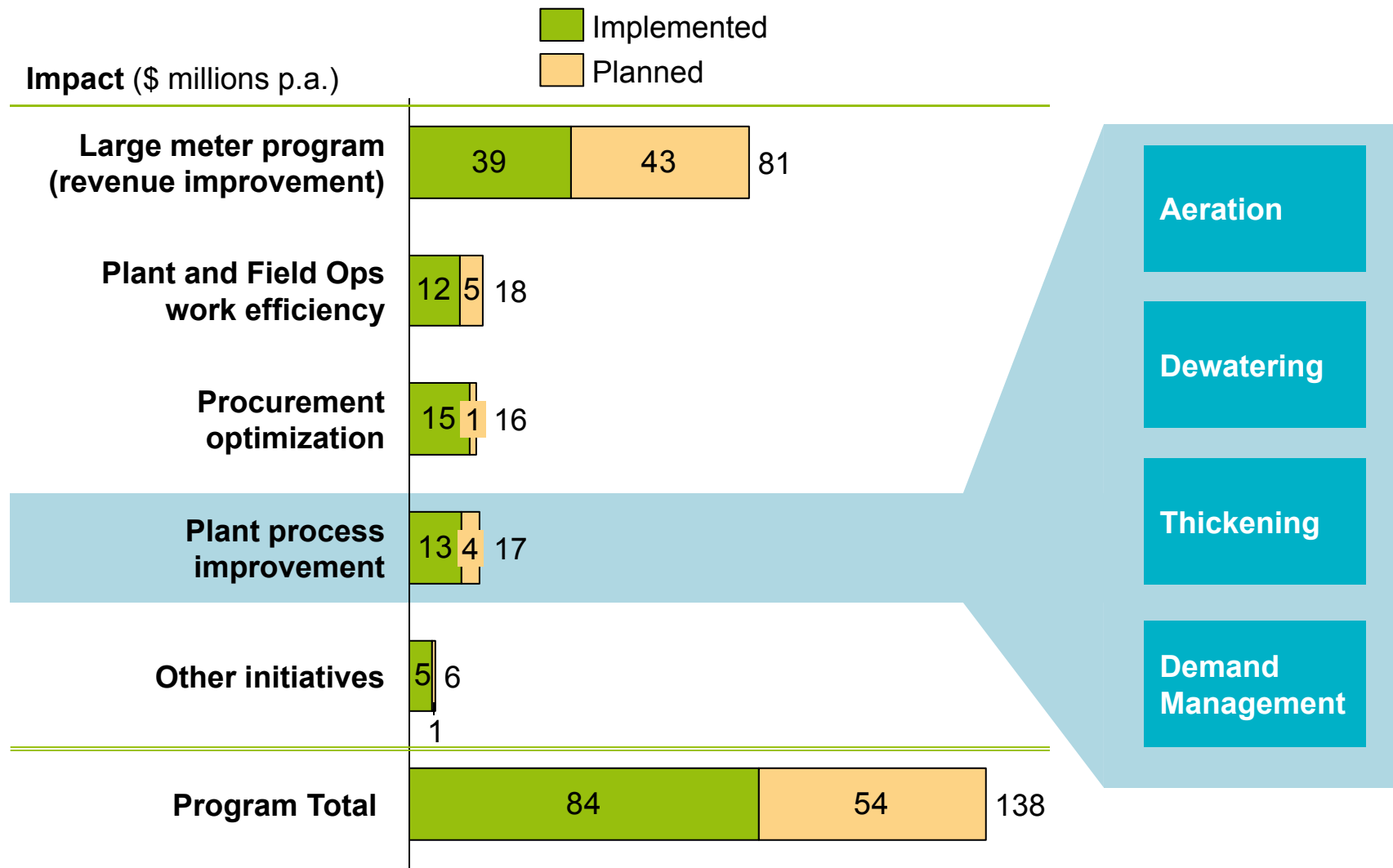


- **Serves 9 million people**
- Annual revenue: ~\$3.4 billion
- Annual operational expense: ~\$1.2 billion
- **Supplies 1 billion gallons of water per day**
- 19 storage reservoirs, 3 controlled lakes
- 295 miles of aqueduct and tunnels, 7,000 miles of water mains, 109,000 hydrants
- **Treats 1.3 billion gallons of wastewater per day**
- 14 In-city treatment plants; 8 upstate plants
- 7,500 miles of sewers
- 96 pump stations
- 148,000 catch basins

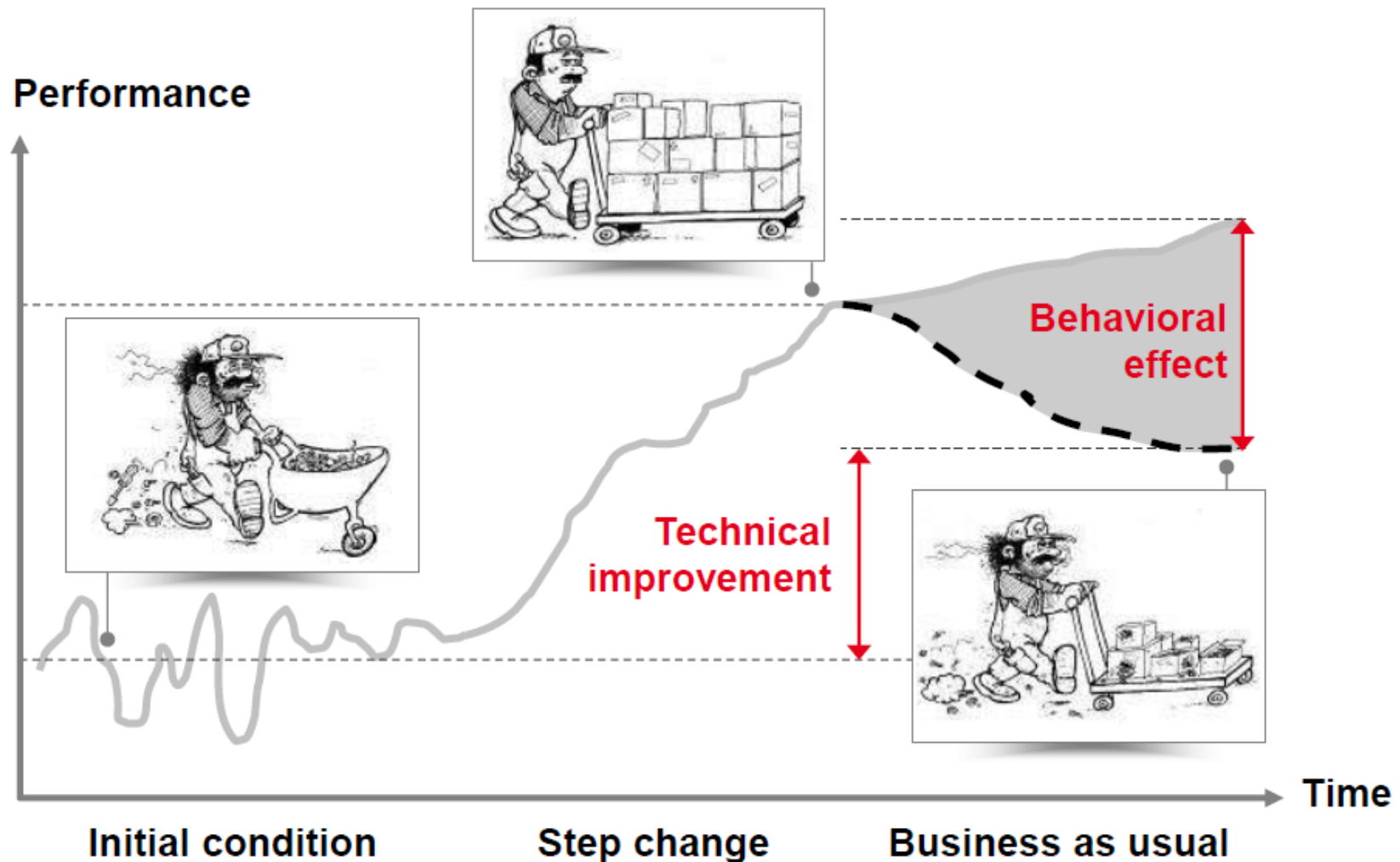
As of June 2014, OpX has achieved \$84 million in annually recurring impact



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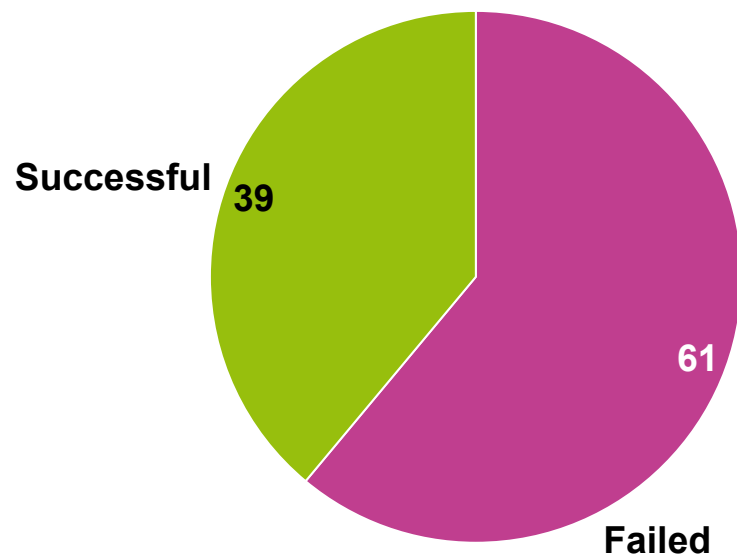


Sustaining improvements is the most difficult part of performance transformation programs



Management and staff mindsets and behaviors are the main reason for failure of transformations

To what extent did the transformation contribute to achieving corporate objectives?
Percent



39% Lack of willingness to change on the part of employees

33% Management behavior did not support the transformation

14% Insufficient financial or other resources

14% Other barriers

*Mindsets
& behaviors*

Source: Analysis of management literature; McKinsey Quarterly Performance Transformation Survey, July 2008; McKinsey Quarterly Transformational Change Survey, January 2010

Behaviors are the visible manifestation of underlying mindsets

What we see...
the behaviors

What we don't see...
the mindsets



Change is often met with resistance...

***"Why should I change?
What's in it for me aside
from hard work?"***

***"This is all new to me
and I've never been
trained?"***

***"I am not going to work
differently unless my boss
does, too!"***

***"Who cares about
performance? Nobody really
looks at our operational
numbers anyway."***

...but the resistance can be overcome by managing the “soft side” of change

Fostering understanding and conviction

*“Why should I change?
What’s in it for me aside
from hard work?”*

Role-modeling new behaviors

*“I am not going to work
differently unless my boss
does, too!”*

Developing talent and skills

*“This is all new to me
and I’ve never been
trained?”*

Reinforcing with formal mechanisms

*“Who cares about
performance? Nobody really
looks at our operational
numbers anyway.”*

Managing change actively and consciously is important to create buy-in from employees

Fostering understanding and conviction

- Communicate the case for change
- Listen to employees and develop ideas collaboratively
- Recognize, reward, and celebrate successes

Role-modeling new behaviors

- “Walk the talk” – be accountable if you expect accountability
- Identify and develop change agents
- Foster open exchange of best practices

Developing talent and skills

- Identify capability gaps and training needs
- Provide formal trainings and on-the-job coaching
- Formalize talent development and succession planning

Reinforcing with formal mechanisms

- Ensure processes and procedures enable change
- Set ambitious targets and track progress against them
- Establish a performance culture driven by metrics

To drive employee engagement across the agency, an Employee Suggestion Program was launched



**Do you have
a great idea?**

Submit it to the Employee
Suggestion Program

We want to hear your ideas on how to make DEP safer and more efficient. DEP will award up to \$1,000 for ideas that demonstrate cost savings or improve health and safety.

To submit your idea, visit <http://suggestions/>



- Program launched on Oct. 1, 2013
- >50 employee suggestions received within first two weeks of program
- Implementation of two EH&S-related initiatives already started

Process improvement initiatives are being rolled out to all 14 DEP wastewater treatment plants

<i>Initiatives</i>	<i># of WWTPs</i>
Aeration	7
Dewatering	6
Thickening	13
Demand Management	13

Initial challenges

- 14 Wastewater Treatment Plants across all five boroughs
- Several plants undergoing major capital upgrades
- Lack of financial transparency at plant level
- Lack of communication between operations and process engineering

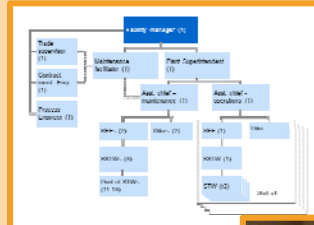
Our transformation approach for plant process performance in NYC is based on four principles...

Focus on performance management at all levels

Visual boards and weekly Initiative Reviews; upwards reporting on key metrics to BWT leadership



Operate as ONE plant



Facility Manager leading Process and Operations

Process and operations side-by-side at weekly meetings



Step change in mindsets to drive continuous improvement

Culture of fact-based problem-solving using boards

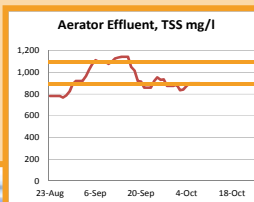
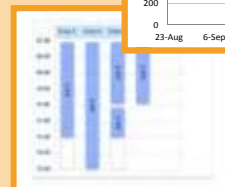


Trainings to build capabilities

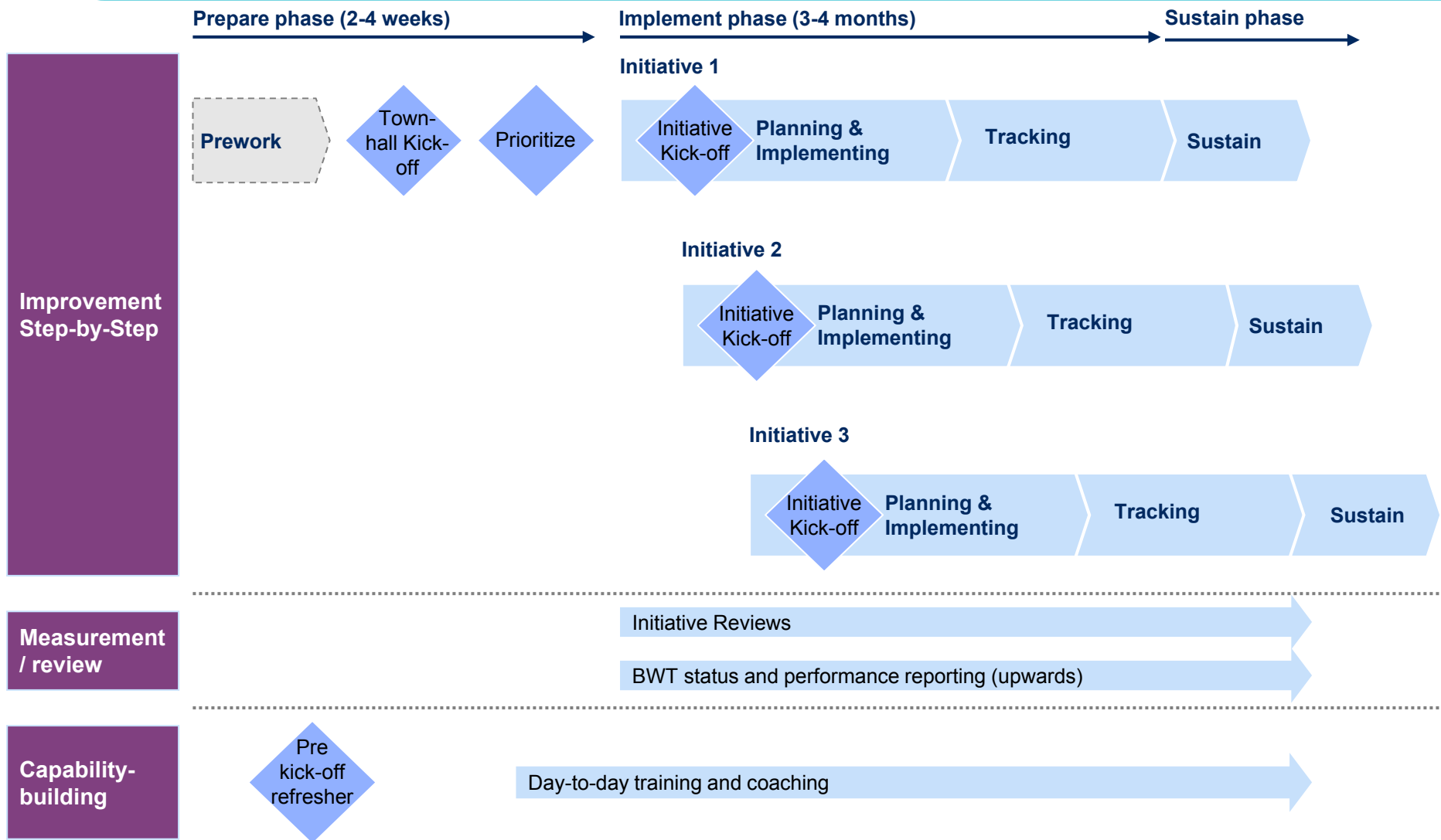


Proactive management of a stable treatment process and plant operations

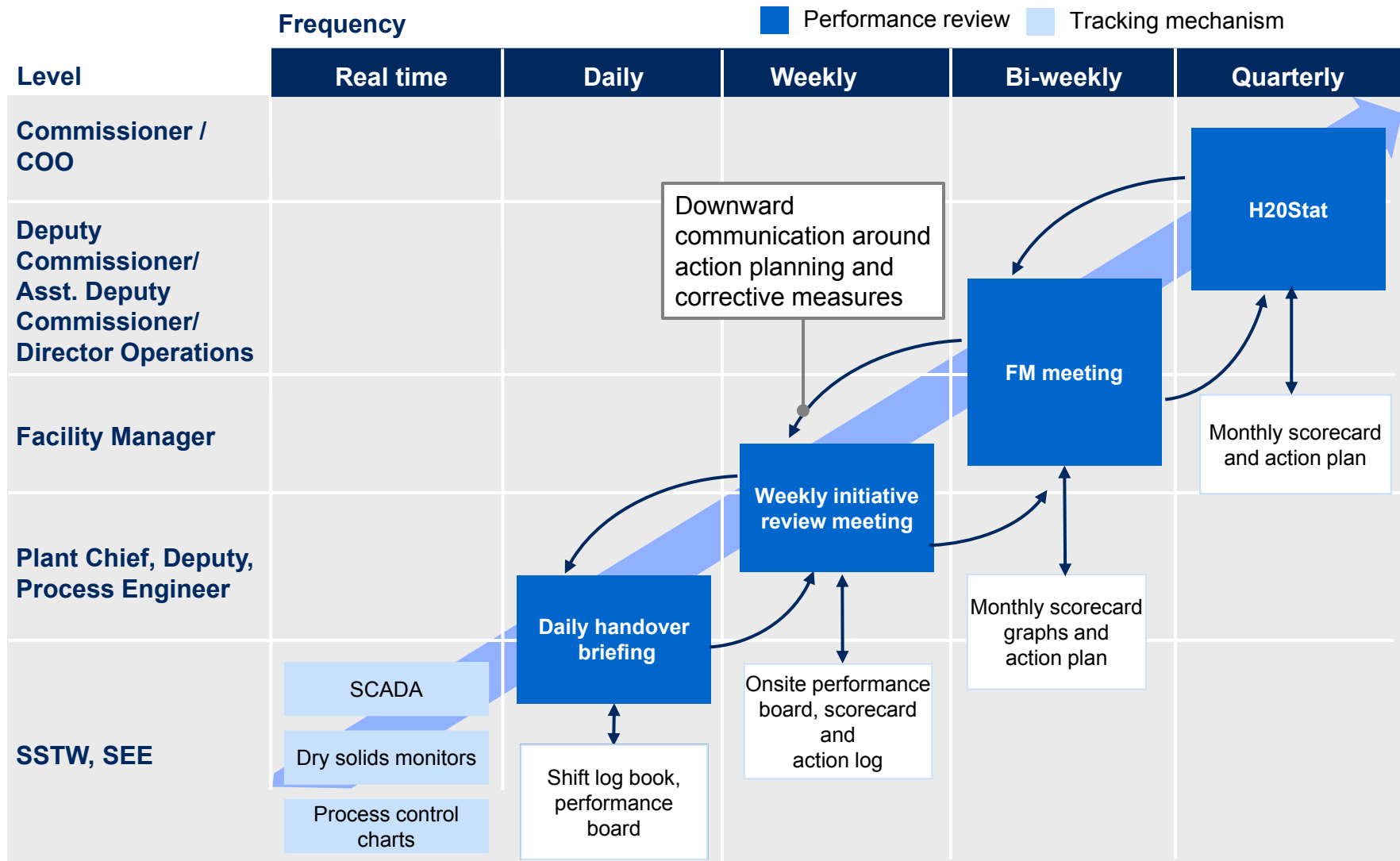
SOPs, Improved Planning & Scheduling



...and follows a pre-defined path from initiative kick-off to sustaining the impact

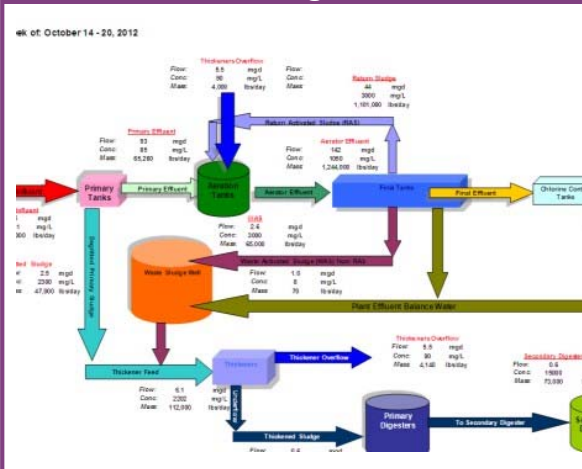


Our meeting and reporting cascade ensures that performance is monitored and managed at all levels



The most important effect of our approach is that it brings people together to drive performance jointly

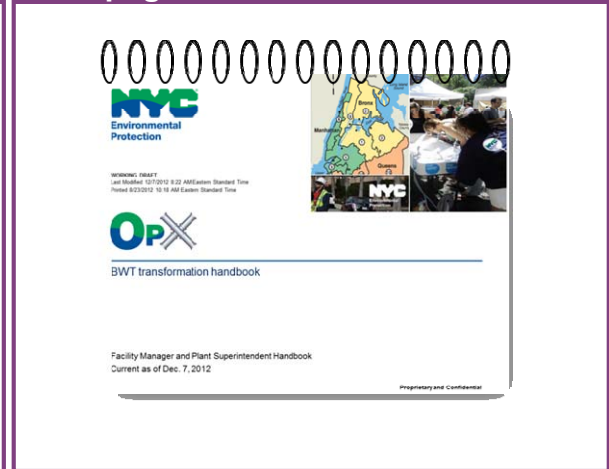
Mass Balance for Solids Management and boat scheduling



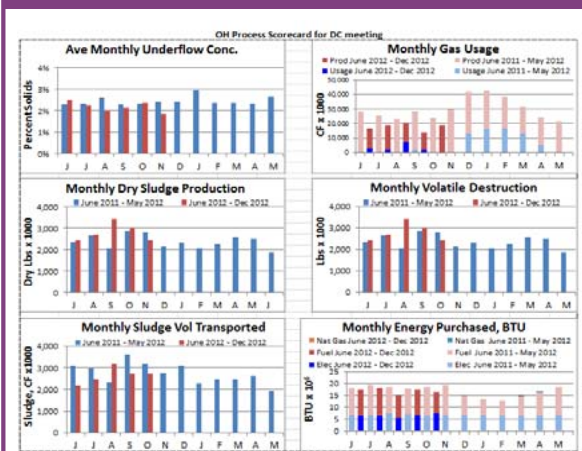
Workshops to develop new processes



Implementation rollout supported by >100 page 'transformation handbook'



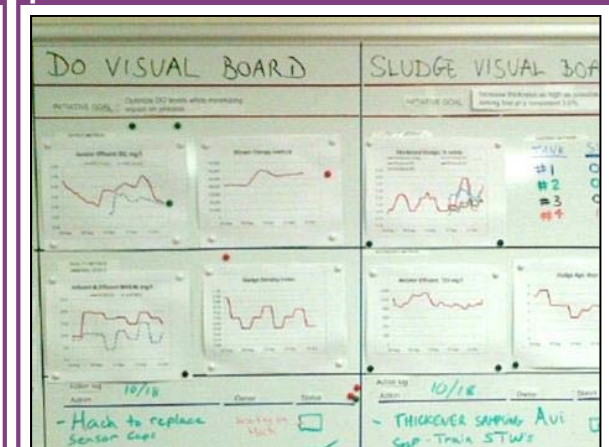
Site specific scorecard



Weekly process control and performance management meetings



Metrics to make daily adjustments to process



All improvement initiatives are constantly tracked and their financial impact is verified monthly

<i>Initiatives</i>	<i># of WWTPs</i>	<i>Operational improvement¹</i>	<i>Savings (\$ million p.a.)</i>
Aeration	7	16% reduction <i>blower avg daily kWh</i>	\$2.7m
Dewatering	6	6% increase in <i>plant cake solids (% sol)</i>	\$3.2m²
Thickening	13	5% increase in <i>thickened solids (%sol)</i>	\$4.8m
Demand Management	13	n/a	\$2.0m

¹ Monthly weighted average improvement as of June 2014

² Includes additional savings from other chemicals reductions initiatives not related to dewatering (e.g., reduction in hypo used for disinfection and odor control)

Questions?

Resourcing the world  **VEOLIA**