





Staff Engagement in MML

Presentation to VCAT

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Laurie E. Locascio, MML Director



MATERIAL MEASUREMENT LABORATORY

Material Measurement Laboratory (MML)

National reference laboratory for measurements in the

chemical, biological, and material sciences

- measurement science research, measurement services, and measurement quality assurance tools
- delegated responsibility for managing and coordinating the NIST-wide
 Standard Reference Materials and Standard Reference Data programs

- forensics and homeland security
- health care
- manufacturing (from advanced materials to biologic drugs)
- climate change assessment
- renewable energy
- the nation's aging infrastructure
- environmental quality
- food safety and nutrition



MML ORGANIZATION



Chief of Staff, M. Satterfield



Director, L. Locascio



Deputy Director, M. Fasolka



Executive Officer, N. Alderoty

Office of Reference Materials



S. Choquette, (Acting)

Office of Data & Informatics



R. Hanisch

Materials Science & Engineering Division



E. Lin

Materials Measurement Science Diviison



J. Small

Biosystems & Biomaterials Science Division



A. Plant

Biomolecular Measurement Division



M. Tarlov



Division



TARWRAN Gonzalez





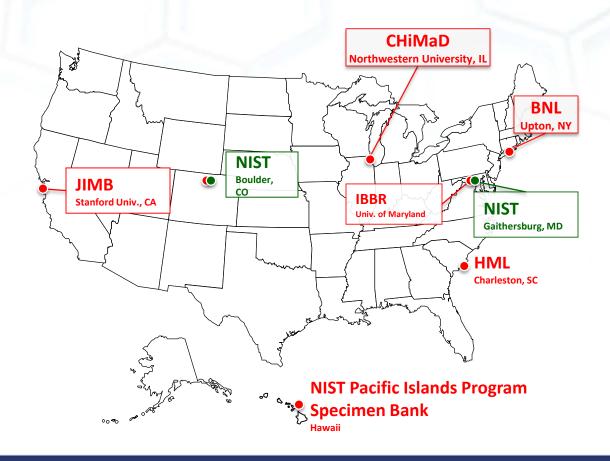
J. Fekete



MML AT A GLANCE

Staff:

- 612 Federal employees
- 300-400 Associates





MML Survey Results

Who	889 employees and associates invited to respond 515 responded (58% response rate)
What	88-item questionnaire One open-ended question
When	Survey: July 10th – 31st 2013 Results: Spring 2014 Implementation plan completed: Fall 2014 Implementation: FY15, FY16
How	Online survey Professional Analysis and Reporting (HayGroup) Benchmarks to High Performing Organizations Employee Effectiveness Framework

Employee Effectiveness Framework



- Confidence in leaders
- Quality and customer focus
- Respect and recognition
- Development opportunities
- Compensation and benefits



Engagement

Commitment

Discretionary effort

Drivers



- Performance management
- Authority and empowerment
- Resources
- Training
- Collaboration
- Work, structure, and process



Enablement

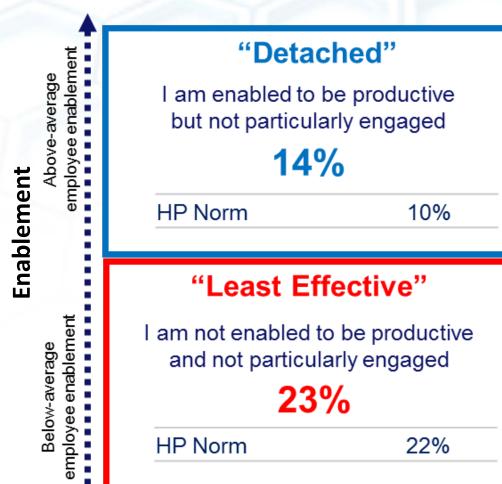
Optimized roles
Supportive environment

Hay Group

Engagement and enablement are critical determinants of performance



Employee Effectiveness Framework: MML Results



"Most Effective"

I am not only enabled to be productive but highly engaged as well

49%

HP Norm

54%

"Frustrated"

I am not enabled to be productive even though I am highly engaged 14%

HP Norm

14%

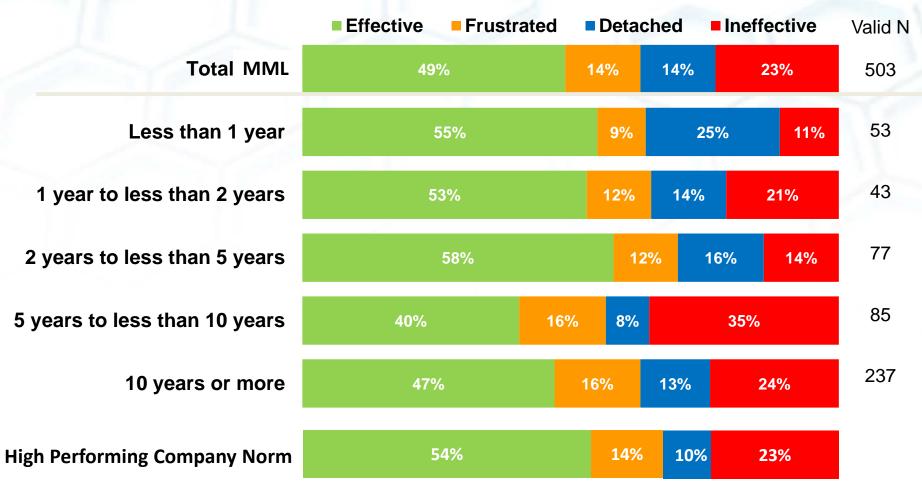
Below-average Engagement

Above-average Engagement

Engagement



Employee effectiveness: Tenure



Frustrated=low engagement (leadership, recognition, respect, direction)

Detached=low enablement (resources to do job)



Where did we fall down in engagement and what was the recommended improvement?

Areas for improvement

- Respect and recognition
- Confidence in leadership
- Quality and customer focus
- Developmental opportunities
- Clear, promising direction

Recommendations

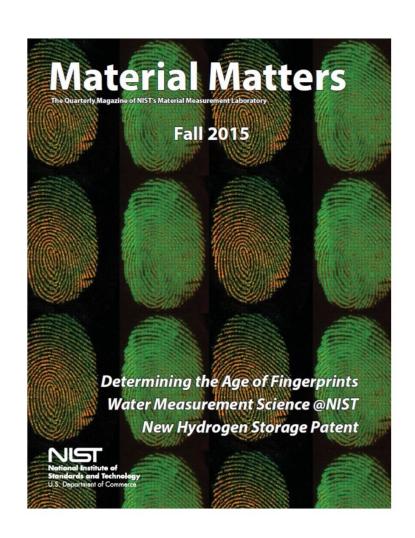
- Communicate
- Collaborate
- Make people feel valued and respected
- Recognize and reward fairly
- Provide clear, promising direction
- Coach, mentor, develop



MML Action Plan: communication and transparency

Develop a multi-pronged strategy for internal and external communications

- Hire Director of Communications, and Director of Engagement
- Lunch & Learn sessions performance review, strategic planning, MML processes, developmental details, travel policies
- More transparent promotion processes
- Increased management face time at other MML sites
- Coffees with me and my staff
- MML Science Advisor from Boulder, HML in Charleston
- Internal MML Newsletter, MML magazine for stakeholders, strategy website





MML Action Plan: clear and promising direction

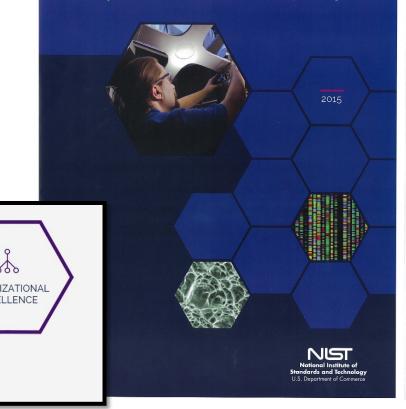
STRATEGIC

PARTNERING

Year-long effort to develop MML 5-Year Strategy

 input from >300 MML staff members as well as external stakeholders

MANAGEMENT



NIST | Material Measurement Laboratory Strategic Plan

https://mmlstrategy.nist.gov



MEASUREMENT SCIENCE

EXCELLENCE

MEASUREMENT

SERVICE

EXCELLENCE

MML Action Plan: professional development and training opportunities

Primary Focus on Early to Mid-Career Permanent Employees

- MML Career Development Committee
- NIST leadership training programs
- MML sabbaticals and details
- MML Group Leader support and development (FY16 Q1)
- "Demystifying NIST" lunch series
- Metrology training seminar series with active learning component (FY16 Q3)
- "Budget talks" with Neil

A sustained and purposeful career development program to enrich careers, provide new opportunities, increase staff engagement, and deepen our pool of leaders



MML Action Plan: provide avenues for collaboration

- Program Directors: single point of contact across Laboratory for important program areas, inward and outward focus
- Focus Groups: grass roots committees to discuss specific scientific areas of interest such as precision medicine and microscopy
- MML Strategy Committees: formed around strategic plan with volunteers

'The Focus Groups brought together many colleagues across MML for a common scientific interest and allowed for an extended sense of comradery.'- MML research bioscientist

Manufacturing
Rick Ricker



Biomedical and Health Kelley Rogers



Materials Genome
Jim Warren



MML Action Plan: Respect and Recognition

Show our staff that we value them and increase sense of community

MML Accolades





Engaging female engineers: Projects for societal good

How to Attract Female Engineers
Lina Nilsson, New York Times, April 27, 2015

14% of workforce "D-Lab at MIT... focuses on developing technologies that improve the lives of people living in poverty", 74% female enrollment 沃犬

"women seem to be drawn to engineering projects that attempt to achieve societal good."

Inclusive Innovation Initiative

Goal: Enhance innovation and catalyze breakthroughs in science and technology capabilities through inclusive teams and workspaces



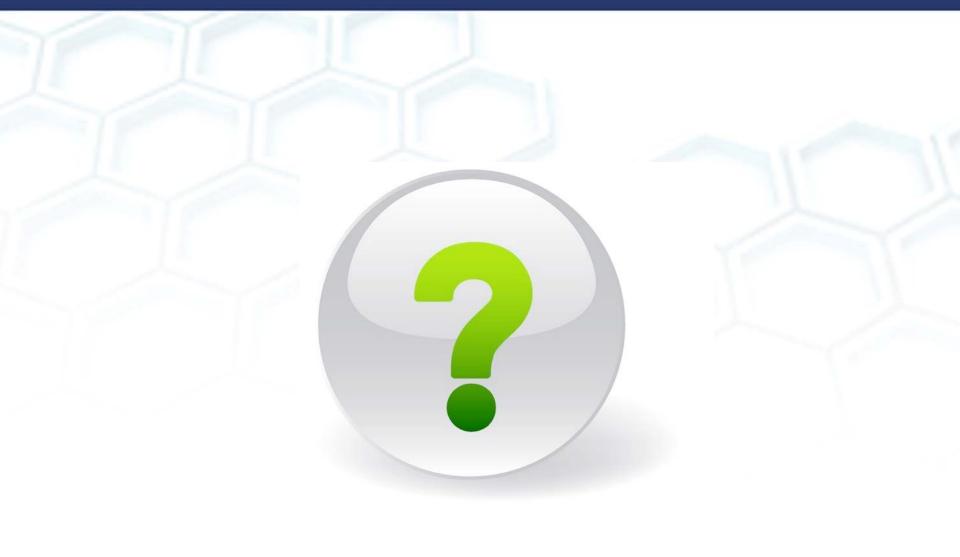
How do we know we did the right things?

Recruited staff to help shape the response

Numbers of volunteers for strategic plan implementation is over 100

Repeat survey in summer of 2016

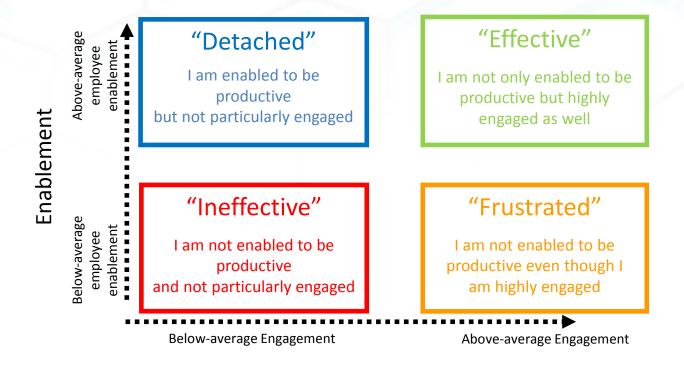






Employee Effectiveness Framework

Four employee Effectiveness Clusters based on engagement v. enablement



High Performing
Companies Norm
based on data
from ~40
companies that are
financial
performance
leaders.