Research Integration Report

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National Institute for Occupational Safety and Health
Board of Scientific Counselors Meeting

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Acknowledgement

- Jessica M.K. Streit, PhD
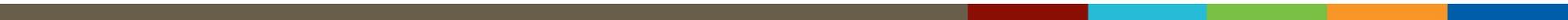
Office of Research Integration (ORI)

- Established January 2019
- Mission to bring knowledge and research communities together in innovative ways to advance the state of the science through priority research.

RESEARCH INTEGRATION
bringing knowledge and research communities together

ORI Purpose

- Promote the strategic alignment and collaboration among the intramural and extramural OSH research communities.

- Support the integration and prioritization of research goals and the alignment of future research investment through input on burden and need.

- Collaborate with intramural and extramural subject matter experts and key stakeholders to develop recommendations for an expanded framework for OSH research, training, and outreach.

Core Components

- **Expanding Research Partnerships**
  - Promote collaboration and innovation
- **NORA Intramural Research Competition**
  - Integrated research to address priority goals
- **Expanded focus for OSH**
  - Broader view of burden
  - Futuring

Research Integration

Expanding Research Partnerships

NORA Intramural Research

Expanded Focus for OSH

Research Integration Updates

FY2019

Expanding Research Partnerships

- Initiative established in 2018 following expanding research partnerships conference in Denver June 2017

- Annual webinar series with intramural and extramural researchers launched in 2018

- 2019 theme: Emerging Issues
  - April 10 - Robotics
  - June 12 - Emerging Technologies
  - Sept 18 – Expanded Focus for OSH

- 2019 Conference of NIOSH Research Centers
  - AgFF, CON, ERC, and TWH Centers

NORA Intramural Research Competition

- Annual intramural research competition open to all NIOSH scientists
  - Small and Large Projects
  - Program and SRC review
- Projects must identify priority research goals in the NIOSH Strategic Plan
- Research priority based on burden, need, and potential impact
- BNI framework available May 2019 Annals of Work Exposures and Health
  - https://academic.oup.com/annweh/article/63/4/375/5420608

Research Integration

- Report of integration of intramural and extramural research goals

- Alignment with NIOSH Strategic Plan

- https://www.cdc.gov/niosh/oep/annualreports/2017.html

Expanded Focus for OSH

- **Broader view of burden**
  - Work and work-related burden across the working life continuum
  - Paul Schulte et al 2015 and 2017

- **Futuring at NIOSH**
  - Early efforts into feasibility of a futuring unit at NIOSH
  - Will be input into the Future of Work Initiative

Schulte PA, Guerin RJ, Schill AL, Bhattacharya A, Cunningham T, Pandalai SP, Eggerth D, Stephenson CM. 2015. Considerations for Incorporating "Well-Being" in Public Policy for Workers and Workplaces. Am J Public Health. 2015; 105:e31-e44.

Schulte P, Pana-Cryan R, Schnorr T, Schill AL, Guerrin R, Felknor S, Wagner G. Approach to Assess the Burden or Work-Related Injury, Disease, and Distress. 2017. Am J Public Health 107:1051-1057.

Broader View of Burden

- Collaboration with DSI, intramural and extramural researchers

- Exploring transition needed to a broader view of work and work-related burden

- New and existing hazards due to changes in work, the workplace, and the workforce

- Considers expanding foundational notion of burden

Brief View of Coming Attractions: NIOSH Future of Work Initiative
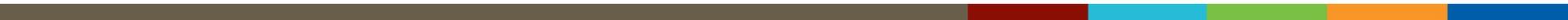
Global Commission on Future of Work

United Nations, International Labour Office, 2019
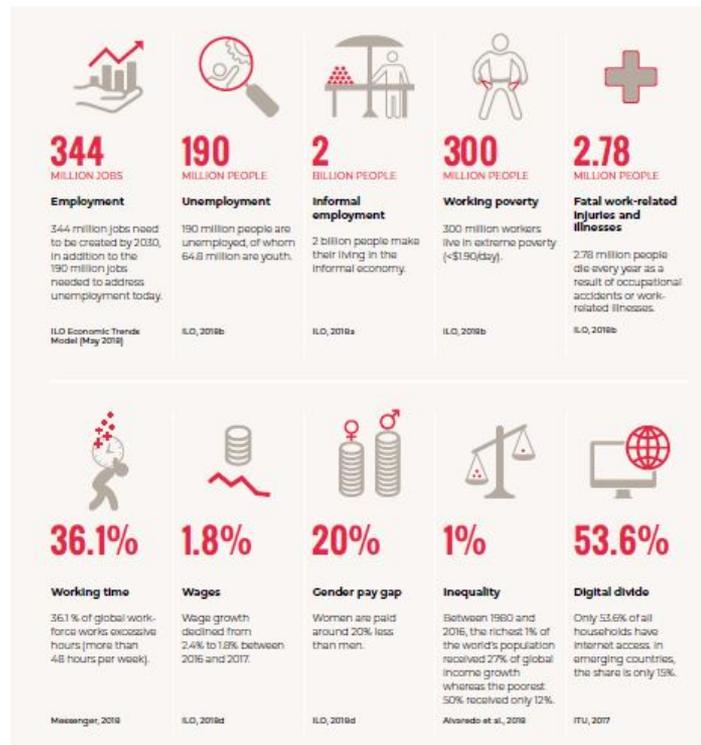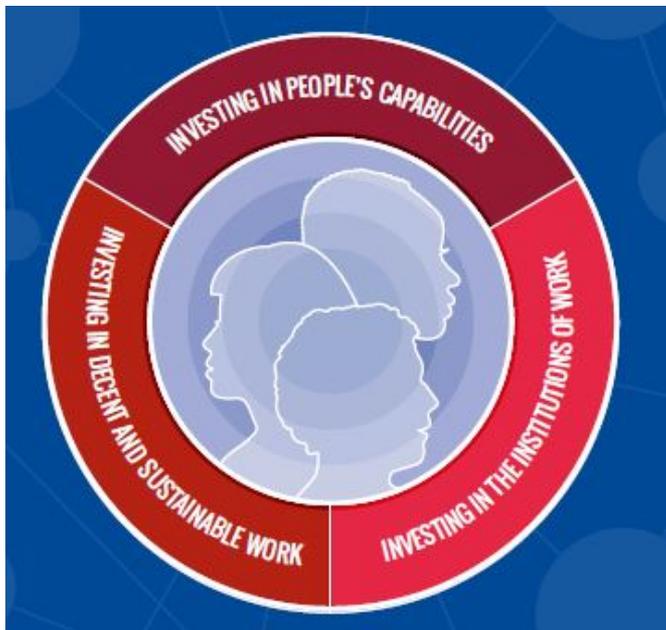
ILO—Future of Work from OSH Perspective

- The ILO report, [Safety and Health at the Heart of the Future of Work: Building on 100 Years of Experience](#), was released April 18, 2019 ahead of [World Day for Safety and Health at Work 2019](#), scheduled for April 28.

- It reviews the organization's century of work on occupational safety and health issues and highlights emerging concerns in the workplace.
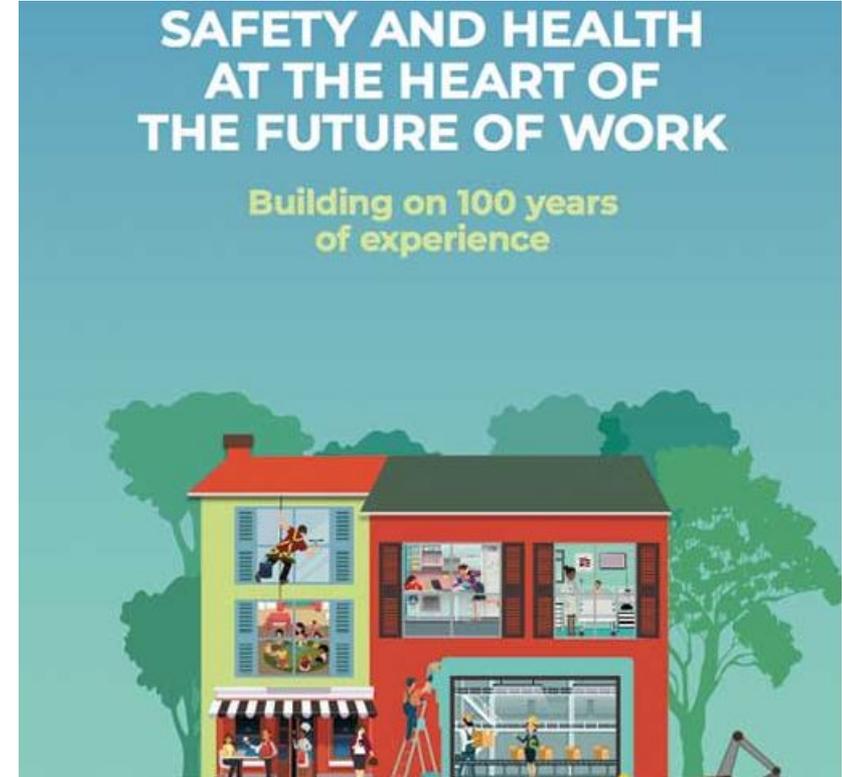
Why Study the Future of Work?

Hines & Bishop (2015)

- Future is not predetermined and future outcomes *can* be influenced by our choices in the present…

- Engaging in strategic foresight can move us from being reactive to being proactive about the—
  - Design of job arrangements made possible by digitalization
  - Types of work that are performed using new technologies
  - Challenges to workforce health, safety and well-being

NIOSH Future of Work Initiative

Compile *Future of Work* studies

Feature current research projects

Promote new research:
- **New industries**
- **New technologies**
- **New organizational design**
- **New job arrangements**
- **New risk profiles**
- **Ways to control new risks**

Connect trends in workplace, work, and workforce change to prepare for what the future holds for occupational safety and health.

NIOSH *Future of Work* Initiative

- **Workplace**
  - Organization Design
 - Job Arrangements

- **Work**
  - Robotics
  - Advanced Manufacturing
  - Artificial Intelligence

- **Workforce**
  - Demographics
  - Job Displacement
  - Occupational Polarization

Forecasting the Future is Uncertain
Near Future & Far Future

Future Alternatives

Past

Present

Trends

Predictive analytics

Actual Future?
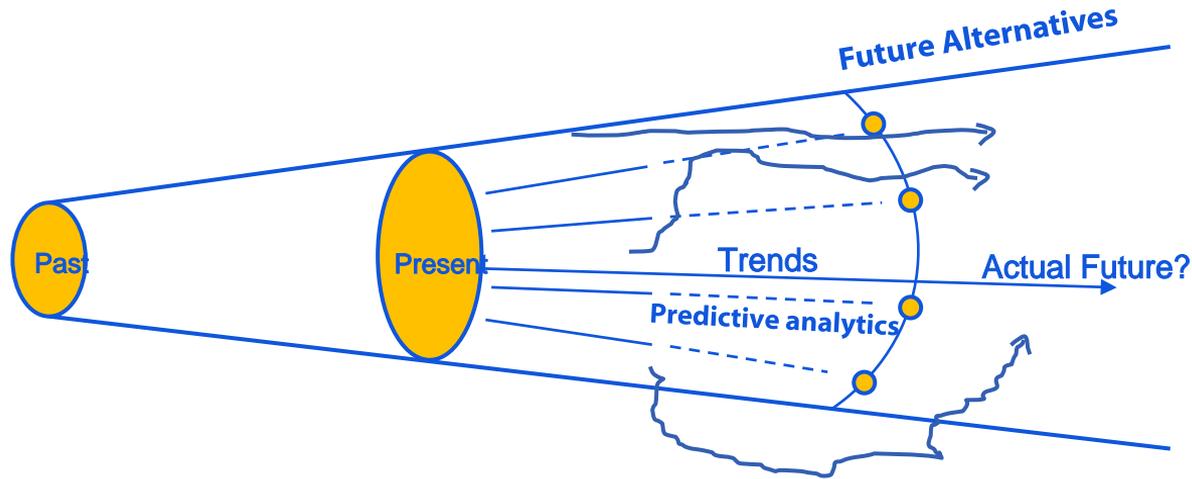
Futuring at NIOSH

- Early efforts to help assess feasibility of establishing futuring unit at NIOSH

- Input into the Future of Work Initiative

- Key informant conversations with intramural stakeholders

- Initial scan of scientific and grey futures oriented literature

- Review of intramural and extramural research
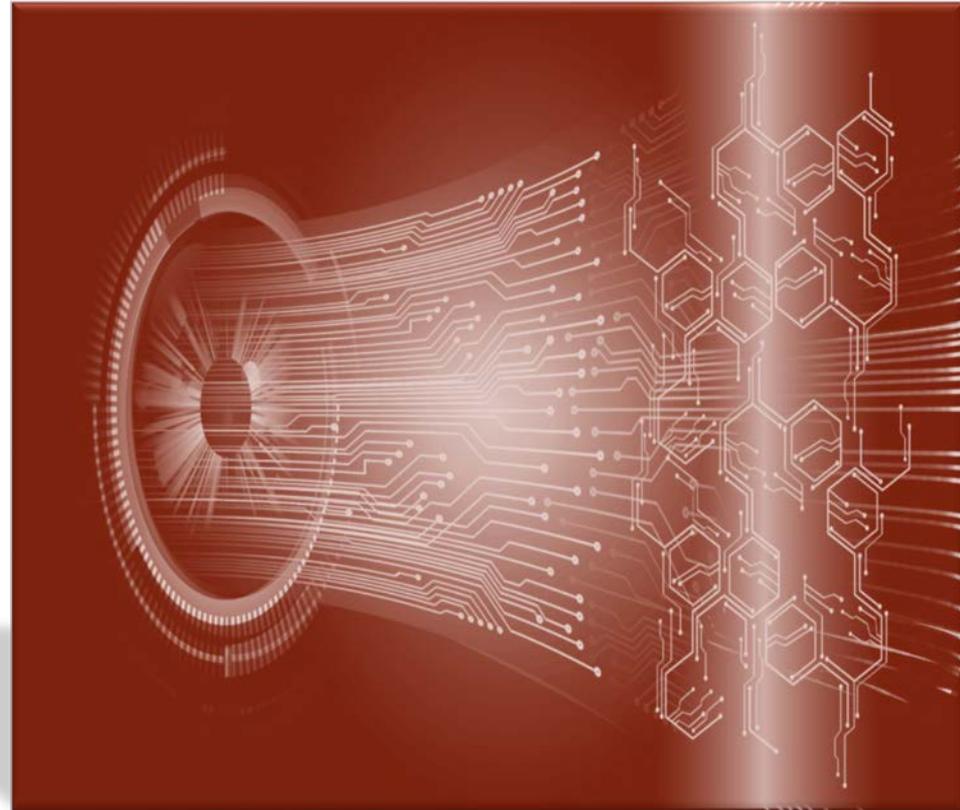
Key Informant Conversations

Strengths

- **Establishes new Agency resources**
  - Websites, Templates
  - Communities of practice
- **Improves data accessibility**
  - Repositories, visualization
- **Enhances knowledge**
  - Creativity, ingenuity
  - Future-focused
- **Coordinates existing resources**
  - Perspectives, skills
  - Opportunities for integration

Challenges

- **Ensuring acceptance / buy-in**
  - Clear definitions: what it is v. is not
  - Early successes needed
  - Must be "user-friendly"
- **Identifying data sources**
  - Funding, recurring updates
- **Avoiding duplicity**
  - Expertise, functions, programs
- **Measuring success**
  - Quantitatively
  - Qualitatively

Initial Scanning

- Annotated bibliography in foresight and futures science grey and peer review literature (n>70)

- Inventory of futures-oriented intramural and extramural projects
  - 607 projects reviewed
  - 60 related to futures issues
  - 55 surveillance relevant to horizon scanning

- Mapping of global future of work players
  - Currently active entity with internal capacity
  - Clear mention of broader OSH interests

Future of Work Key Players ◆

Name	Location
McKinsey Global Institute, Future of Work (Featured Insight)	San Francisco, CA, USA
The Institute for the Future (IFTF)	Palo Alto, CA, USA
Emergent Research	Lafayette, CA, USA
The Aspen Institute, Future of Work Initiative	Washington, DC, USA
Institute for Alternative Futures	Alexandria, VA, USA
Data & Society	New York, NY, USA
Markle Foundation, Rework America Task Force	New York, NY, USA
Cognizant, Center for the Future of Work	Teaneck, NJ, USA
EU-OSHA European Risk Observatory (ERO)	Bilboa, Spain
Health and Safety Executive (HSE), Foresight Centre	Merseyside, United Kingdom
British Safety Council, Future Risk (Campaign)	London, United Kingdom
PricewaterhouseCoopers (PwC), Workforce of the Future Programme	London, United Kingdom
Organisation for Economic Co-Operation and Development (OECD), Future of Work Initiative	Paris, France
International Labour Organization (ILO), Commission on the Future of Work	Geneva, Switzerland

Future of Work Key Players ◆
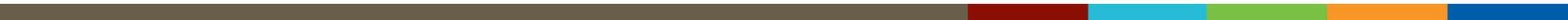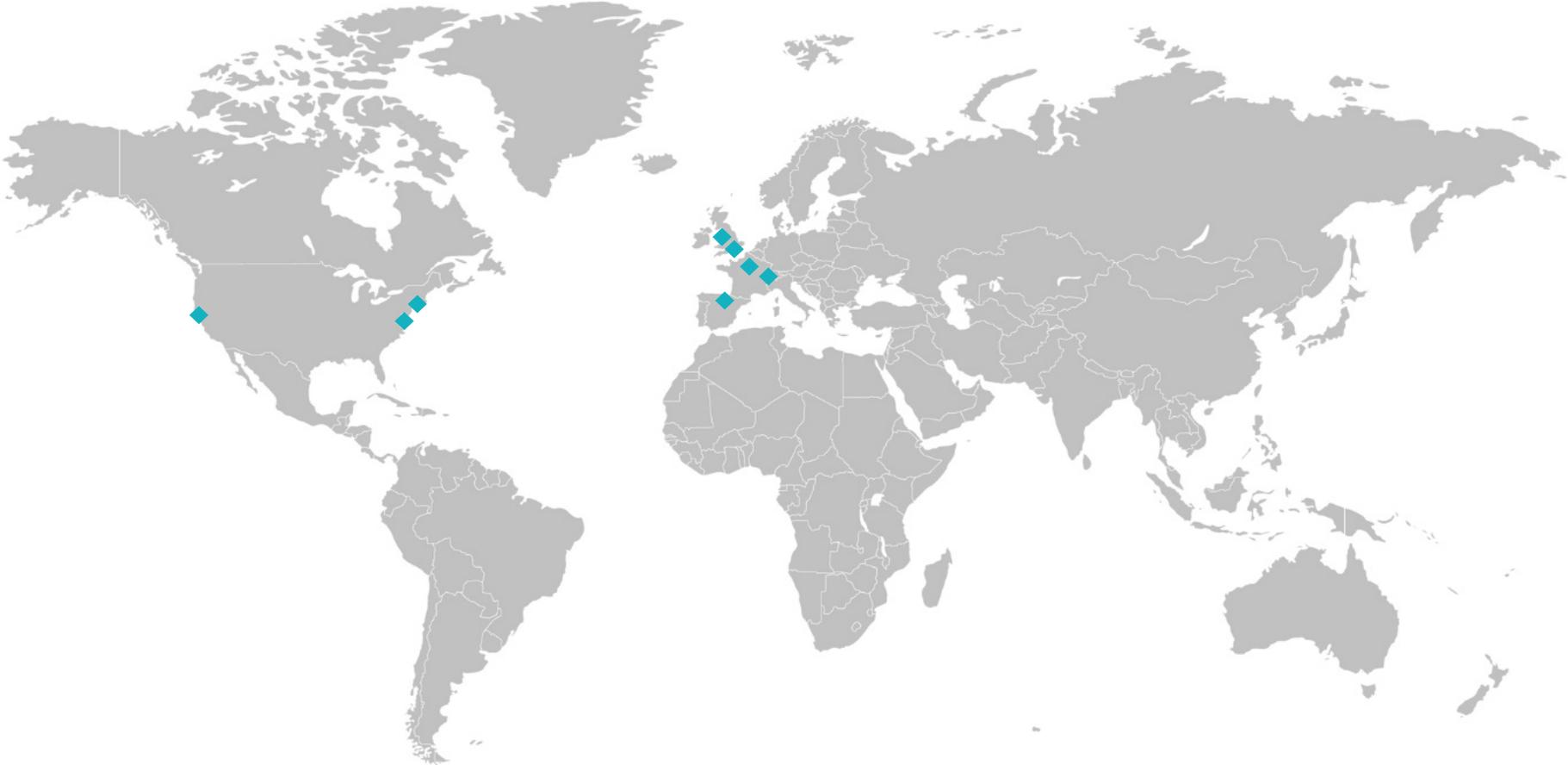
Next Steps Research Integration

- Expand research partnership and research integration efforts
  - NORA intramural research
  - NIOSH extramural research
- Include a futures orientation
  - Build a futuring capacity in ORI
- Work in close collaboration with DSI and Future of Work Initiative

Questions?

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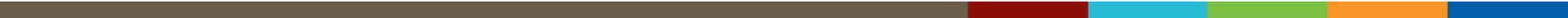
For more information, contact CDC
1-800-CDC-INFO (232-4636)
TTY: 1-888-232-6348   www.cdc.gov

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