



<http://mission-innovation.net>

MISSION INNOVATION

Accelerating the Clean Energy Revolution



Natural Resources  
Canada

Ressources naturelles  
Canada

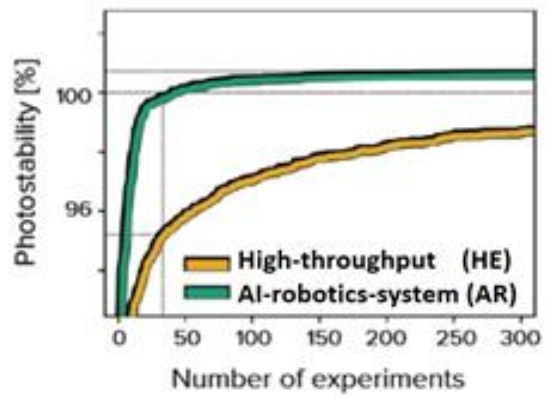
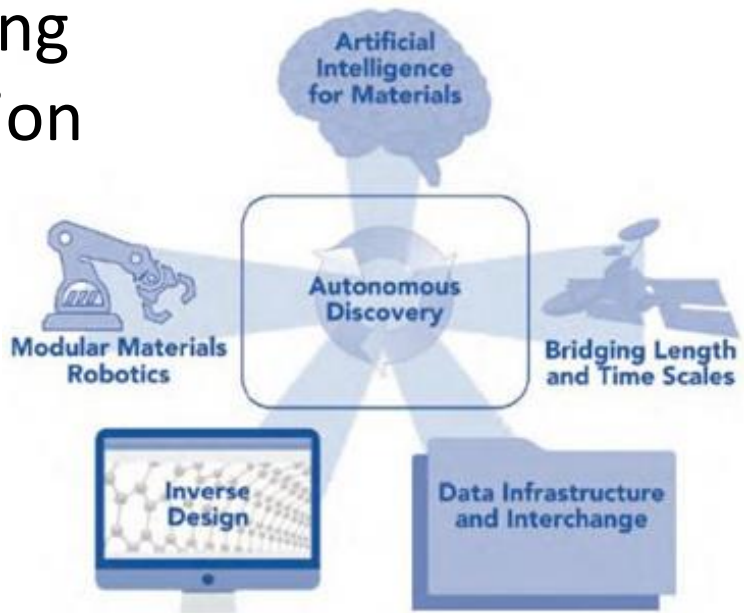


Canada

# Mission Innovation: Autonomous Materials Discovery

## Powered by Artificial Intelligence:

- Big data analysis
- Experimental planning
- Accelerated simulation
- Smart robotics



S. Langner, *et al.*  
(2019) Preprint:  
[arXiv:1909.03511](https://arxiv.org/abs/1909.03511)



PHOTO ILLUSTRATION: 731 PHOTOGRAPHER: GETTY IMAGES

**IC6: Self-Driving Labs**  
**“The 2nd Revolution in Science”,**  
**M. Molina, Nobel Laureate**

	HE	AR	Advantages
Samples	1022	30	34 x faster
Throughput	2 blends/week	9 blends/week	4.5 x faster
Consumption	ca. 15 mg material ca. 100 ml solvent	ca. 0.9 mg material ca. 6 ml solvent	16.7 x material savings

**Acceleration >10x**