

Chemical Alternatives Assessment

Creating a Data Commons for Alternatives Assessment

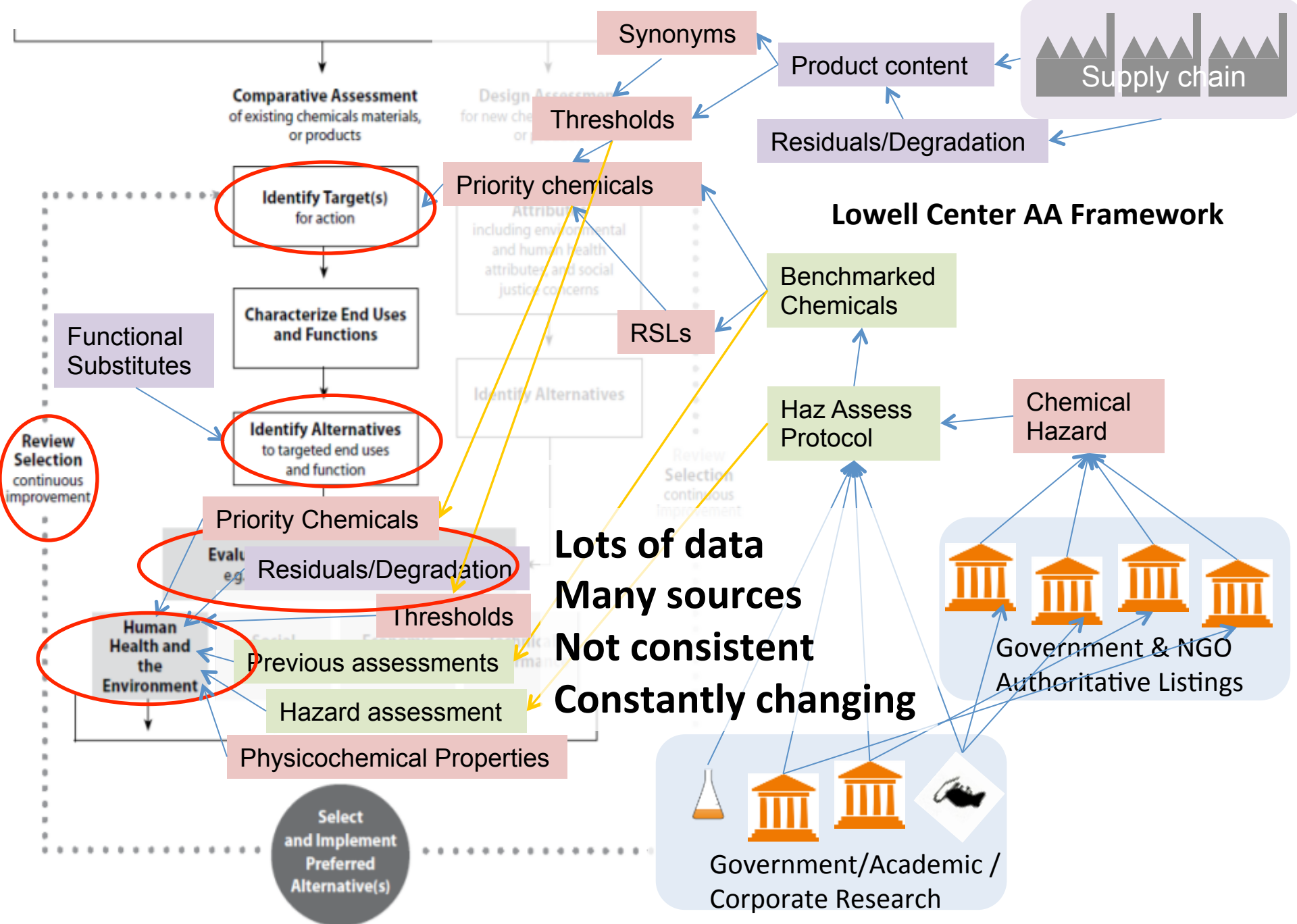
Tom Lent.

Policy Director

Healthy Building Network

March 5, 2015







Designing Alternatives Assessment

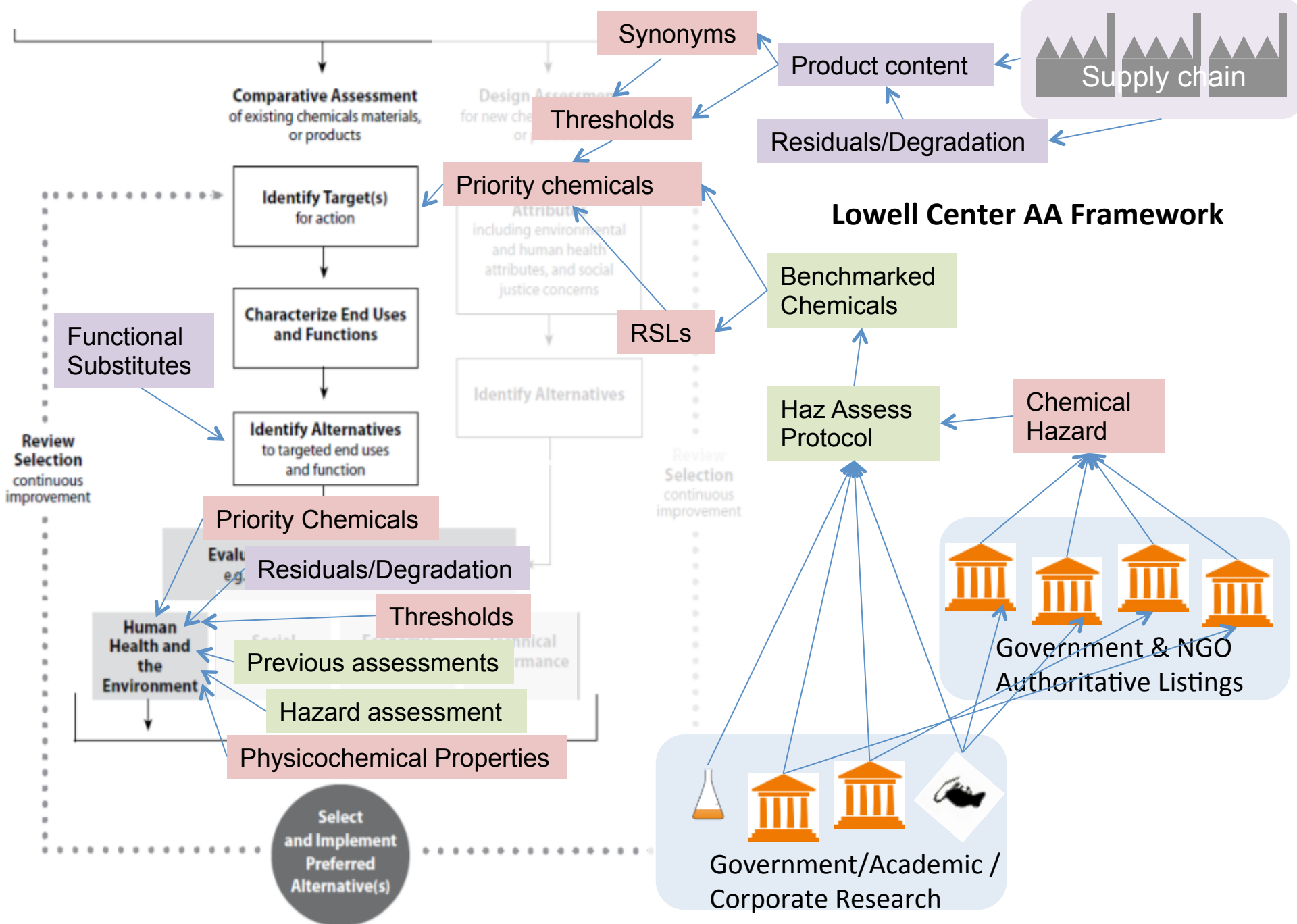
Design Parameters:

- Alternatives assessment needs to be
 - **flexible** and adaptive
and **nimble**
 - **iterative**, replicable, and correctable
 - **scalable** for the facility, as well as the national level

Design *and* Data must serve these needs

Getting to scale

- To drive change across the industry we need:
 - Simple
 - Inexpensive
 - Quick screening
 - Lots of functional alternatives
- Challenges:
 - Balkanized tools
 - Lack of sharing of assessment results



How do we do it right?

- Characterize product contents
 - Health Product Declaration
- Identify chemicals of concern
 - Pharos chemical library
- Identify potential alternatives
 - Case studies - e.g. Subsport
- Exposure
 - Physicochemical property tools
- Fill in the hazard data gaps
 - High throughput?



 **Pharos**


SUBSPORT
Substitution Support Portal

 eChemPortal

 **EPA ToxCast**



OECD Toolbox

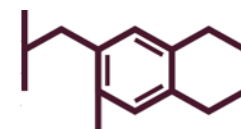
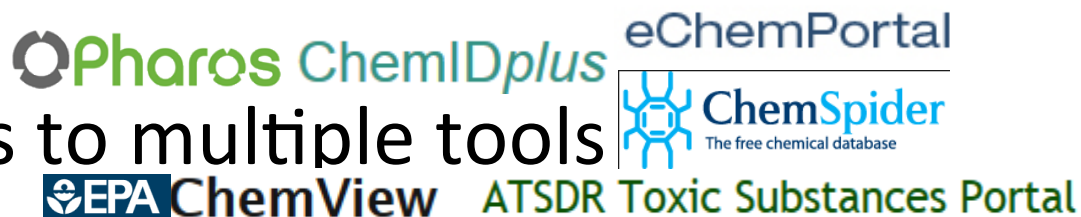
<http://www.oecdsatoolbox.org/Home/Tools>

How do we do it at scale?

- Bulk screening of chemicals in use to identify & prioritize target Chemicals of Concern
- Merge functional use data for automated inter-industry searching
- Speed the assessment process with easier access to integrated data
- Reduce redundant assessment
- Leapfrog the need to fully assess everything through use of chemical class characteristics

Chemical Data Commons project

- Automated access to multiple tools
- We can't do it alone
 - Collaborative work space to tackle common problems
- Chemical identification
 - Ambiguities in CASRN
 - Need for screening of chemicals by class
- Toxicological science sharing
- Assessment Exchange



Health Product
DECLARATION

The eBay logo, featuring the word 'eBay' in its characteristic multi-colored font.

The Kickstarter logo, featuring the word 'KICKSTARTER' in a bold, green, sans-serif font.

The Pharos logo, featuring a green circle with a white dot and the word 'Pharos' in a green, sans-serif font.

Chemical Hazard Data Commons Working Papers

<http://chemicalcommons.info/>

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IT DON'T MEAN A THING

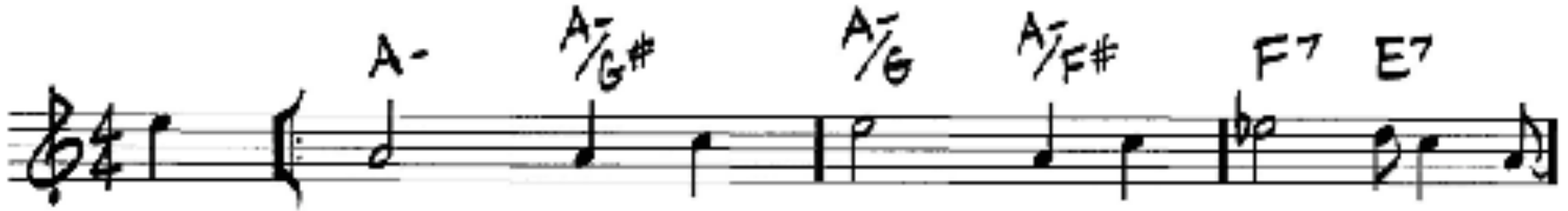
-DUKE ELLINGTON



IF IT AIN'T GOT THAT

Data

LEWIS MILLER



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