SERDP ESTCP TSCA and REACH Short Course

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OASD (Sustainment)

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2019 | Enhancing DoD's Mission Effectiveness

TSCA/REACH Short Course -- Agenda

- Dr. Patricia Underwood, Office of the Assistant Secretary of Defense for Sustainment: Introduction: DoD Perspective on Managing REACH and TSCA Existing Chemicals Issues
- Ms. Niva Kramek, U.S. Environmental Protection Agency: TSCA Update
- Mr. David Hyde, Aerospace Industries Association: Industry Perspective on TSCA
- Mr. Costas Tataroglou, European Defence Agency: REACH Impact on Defence: EU Perspective & EDA REACH activities
- Ms. Erin Yaeger, Pratt & Whitney: REACH Update: U.S. Perspective

TSCA/REACH Short Course – Panel Discussion

- Defense exemptions under REACH – how are these being handled and what is the timeframe/application process? Are these exemptions necessary for critical functions?
- How can we envision cooperation improving between industry and government on chemicals? *E.g.*, future authorizations on chromate; what is best way to communicate/pass messages?
- How is Defense R&D handled under TSCA?
- How will entities address the requirements of the EU Waste Framework Directive, and what are the challenges?

Managing Chemical and Material Risks from TSCA and REACH

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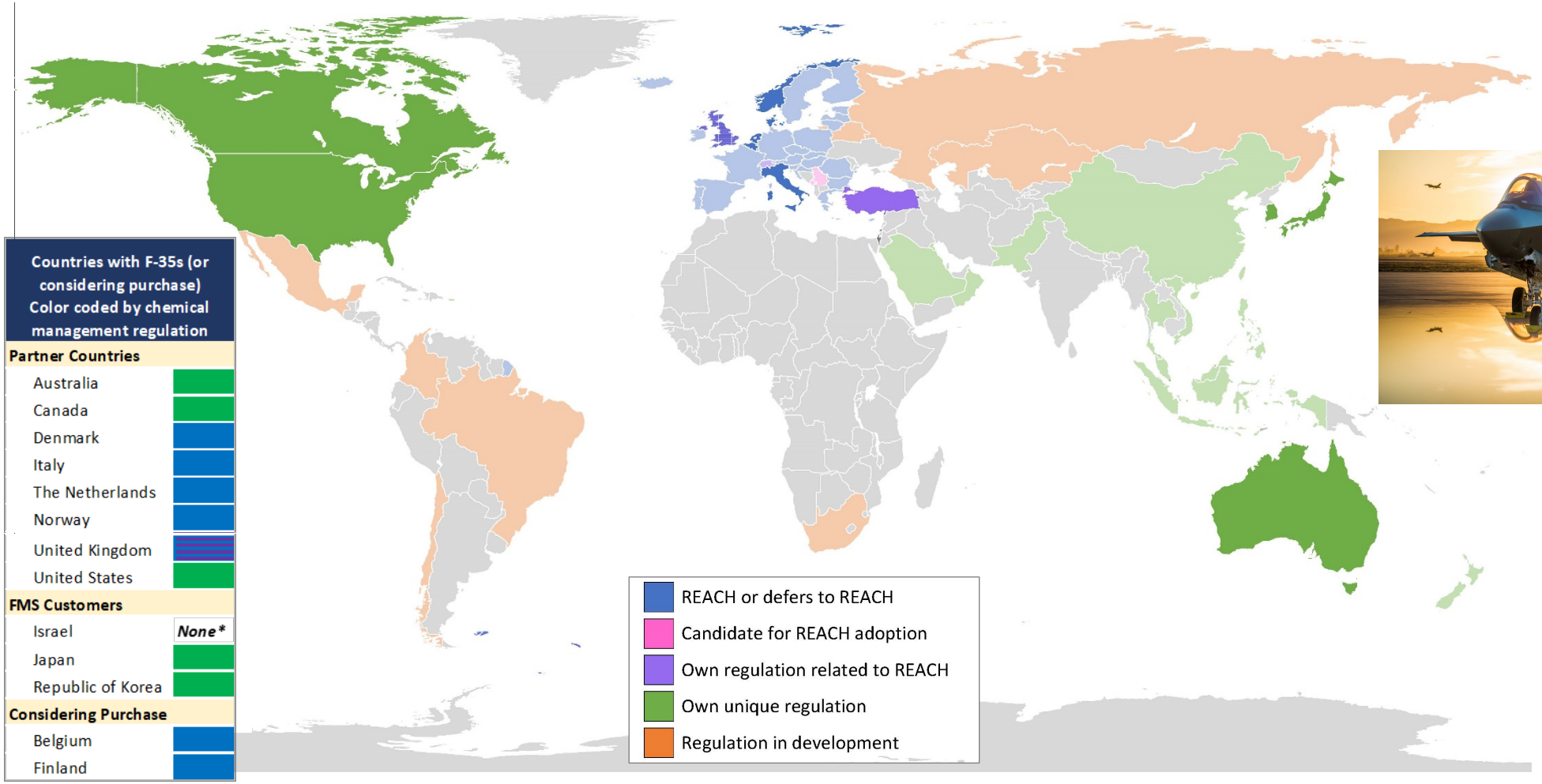
Office of the Secretary of Defense for Sustainment – Environment
Chemical and Material Risk Management Program

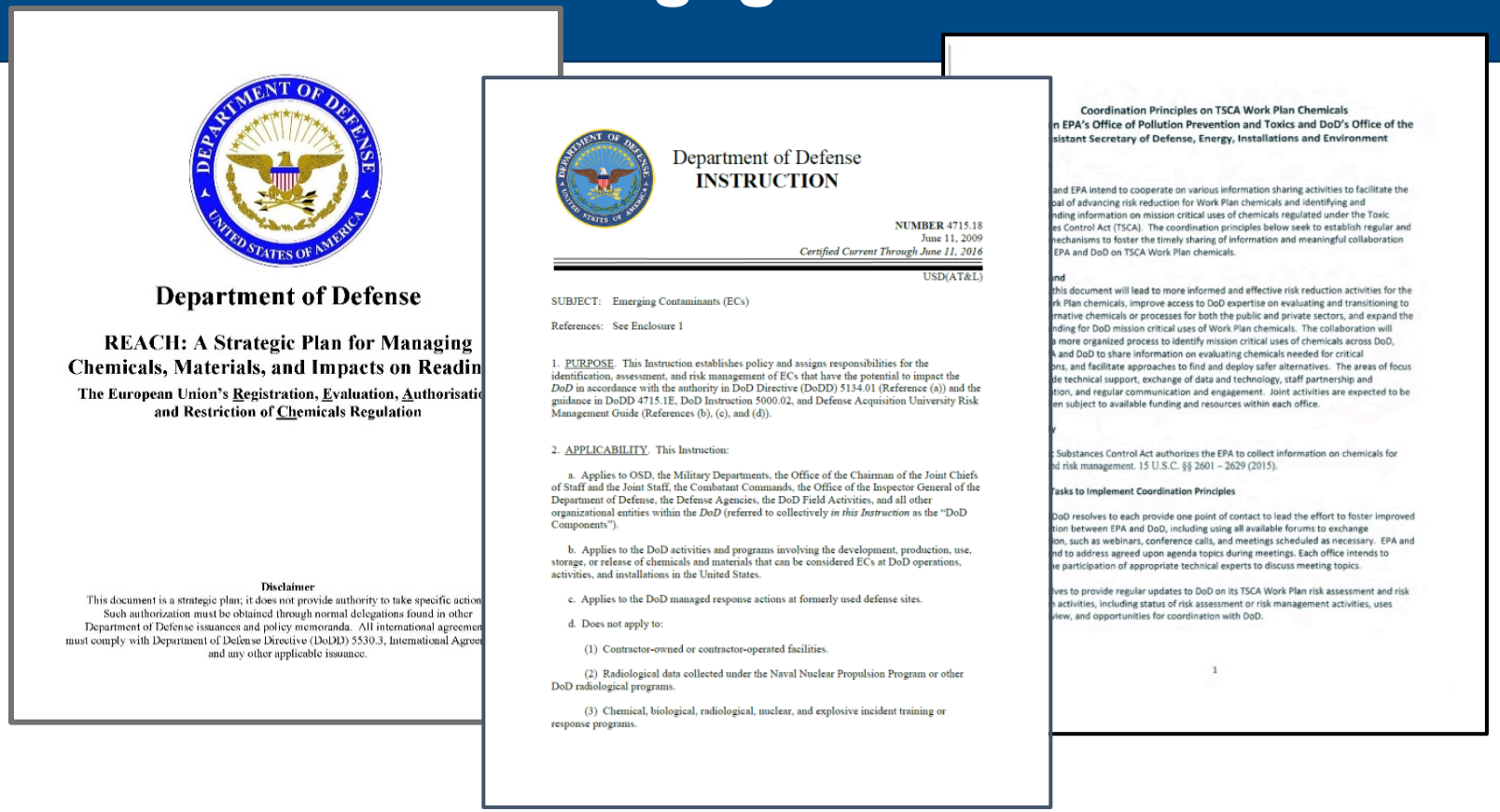
- Mission – To protect readiness, people, defense systems, and the environment by identifying and managing risks associated with chemicals and materials used by DoD
- Focus – To identify and assess chemical risks to the DoD and establish risk mitigation through organizational policies
  - Emerging Chemicals (EC)
    - Toxic Substance Control Act (TSCA)
    - European Union Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (REACH)
- Importance – Enabler of military strategic advantage and key performance enablers
  - Avoid/minimize obsolescence or limited access to DoD mission-critical products/substances and disruption to industrial base/supply chain due to ESOH regulations

Global Chemical Regulations



** Does have hazardous chemical law.*

OASD Sustainment Policies, Strategies and US Interagency Engagement



Department of Defense

REACH: A Strategic Plan for Managing Chemicals, Materials, and Impacts on Readin

The European Union's Registration, Evaluation, Authorisatio and Restriction of Chemicals Regulation

Disclaimer

This document is a strategic plan; it does not provide authority to take specific action. Such authorization must be obtained through normal delegations found in other Department of Defense issuances and policy memoranda. All international agreement must comply with Department of Defense Directive (DoDD) 5530.3, International Agreem and any other applicable issuance.

Department of Defense
INSTRUCTION

NUMBER 4715.18
June 11, 2009
Certified Current Through June 11, 2016
USD(AT&L)

SUBJECT: Emerging Contaminants (ECs)

References: See Enclosure 1

1. PURPOSE. This Instruction establishes policy and assigns responsibilities for the identification, assessment, and risk management of ECs that have the potential to impact the *DoD* in accordance with the authority in DoD Directive (DoDD) 5134.01 (Reference (a)) and the guidance in DoDD 4715.1E, DoD Instruction 5000.02, and Defense Acquisition University Risk Management Guide (References (b), (c), and (d)).

2. APPLICABILITY. This Instruction:

a. Applies to OSD, the Military Departments, the Office of the Chairman of the Joint Chiefs of Staff and the Joint Staff, the Combatant Commands, the Office of the Inspector General of the Department of Defense, the Defense Agencies, the DoD Field Activities, and all other organizational entities within the *DoD* (referred to collectively *in this Instruction* as the "DoD Components").

b. Applies to the DoD activities and programs involving the development, production, use, storage, or release of chemicals and materials that can be considered ECs at DoD operations, activities, and installations in the United States.

c. Applies to the DoD managed response actions at formerly used defense sites.

d. Does not apply to:

(1) Contractor-owned or contractor-operated facilities.

(2) Radiological data collected under the Naval Nuclear Propulsion Program or other DoD radiological programs.

(3) Chemical, biological, radiological, nuclear, and explosive incident training or response programs.

Coordination Principles on TSCA Work Plan Chemicals
n EPA's Office of Pollution Prevention and Toxics and DoD's Office of the
sistant Secretary of Defense, Energy, Installations and Environment

and EPA intend to cooperate on various information sharing activities to facilitate the
bal of advancing risk reduction for Work Plan chemicals and identifying and
nding information on mission critical uses of chemicals regulated under the Toxic
es Control Act (TSCA). The coordination principles below seek to establish regular and
echanisms to foster the timely sharing of information and meaningful collaboration
EPA and DoD on TSCA Work Plan chemicals.

nd
this document will lead to more informed and effective risk reduction activities for the
rk Plan chemicals, improve access to DoD expertise on evaluating and transitioning to
rnative chemicals or processes for both the public and private sectors, and expand the
nding for DoD mission critical uses of Work Plan chemicals. The collaboration will
a more organized process to identify mission critical uses of chemicals across DoD,
A and DoD to share information on evaluating chemicals needed for critical
ns, and facilitate approaches to find and deploy safer alternatives. The areas of focus
de technical support, exchange of data and technology, staff partnership and
tion, and regular communication and engagement. Joint activities are expected to be
en subject to available funding and resources within each office.

y
: Substances Control Act authorizes the EPA to collect information on chemicals for
d risk management. 15 U.S.C. §§ 2601 – 2629 (2015).

Tasks to Implement Coordination Principles

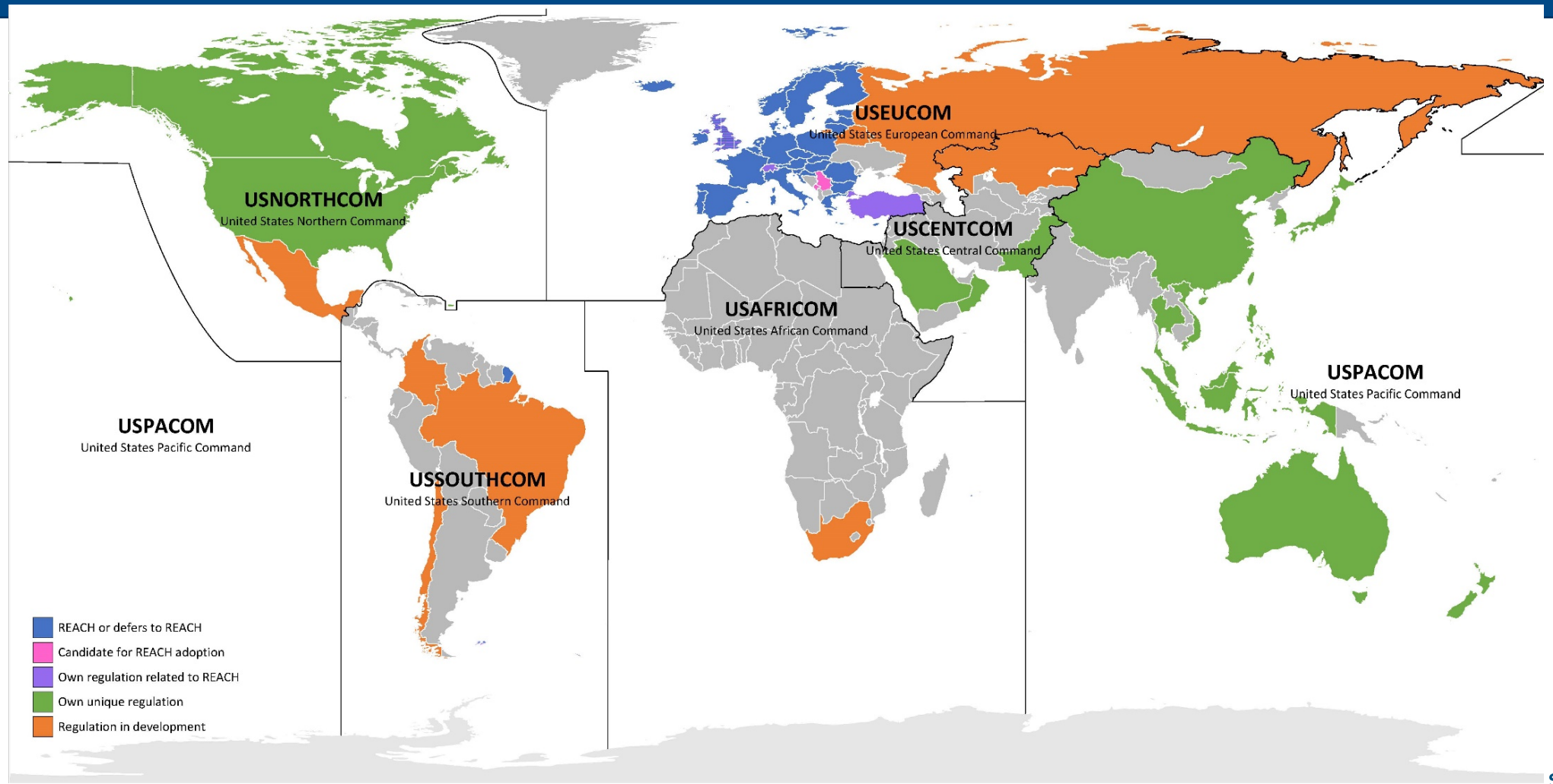
DoD resolves to each provide one point of contact to lead the effort to foster improved
tion between EPA and DoD, including using all available forums to exchange
on, such as webinars, conference calls, and meetings scheduled as necessary. EPA and
nd to address agreed upon agenda topics during meetings. Each office intends to
e participation of appropriate technical experts to discuss meeting topics.

ves to provide regular updates to DoD on its TSCA Work Plan risk assessment and risk
activities, including status of risk assessment or risk management activities, uses
iew, and opportunities for coordination with DoD.

1

- Office of the Deputy Assistant Secretary of Defense ESOH, Emerging Contaminants Program
  - Established in 2008 as Directed by DoD Instruction 4715.18
  - Reach Strategic Plan – Published in 2008 and updated in 2016
  - DoD Energy Installations & Environment, ESOH and EPA OPPT Coordination Principles 2016

DoD REACH Strategic Plan
Global Chemical Regulation Integrated Process Team (IPT)



U.S. EPA TSCA and EU REACH Regulatory Options

TSCA Risk Management

EPA may apply one or more of the following requirements to chemical substances or mixtures to the extent necessary to eliminate an unreasonable risk of injury to health or the environment.

1. Prohibit or restrict manufacture, processing, or distribution in commerce
2. Prohibit or restrict specific chemical uses or above a set concentration
3. Prohibit or regulate any manner or method of commercial use
4. Require minimum warnings and instructions
5. Require recordkeeping
6. Prohibit or regulate disposal methods
7. Notification requirements for manufacturers or processors

REACH Risk Management

ECHA implements the following to address unacceptable risks posed by chemicals.

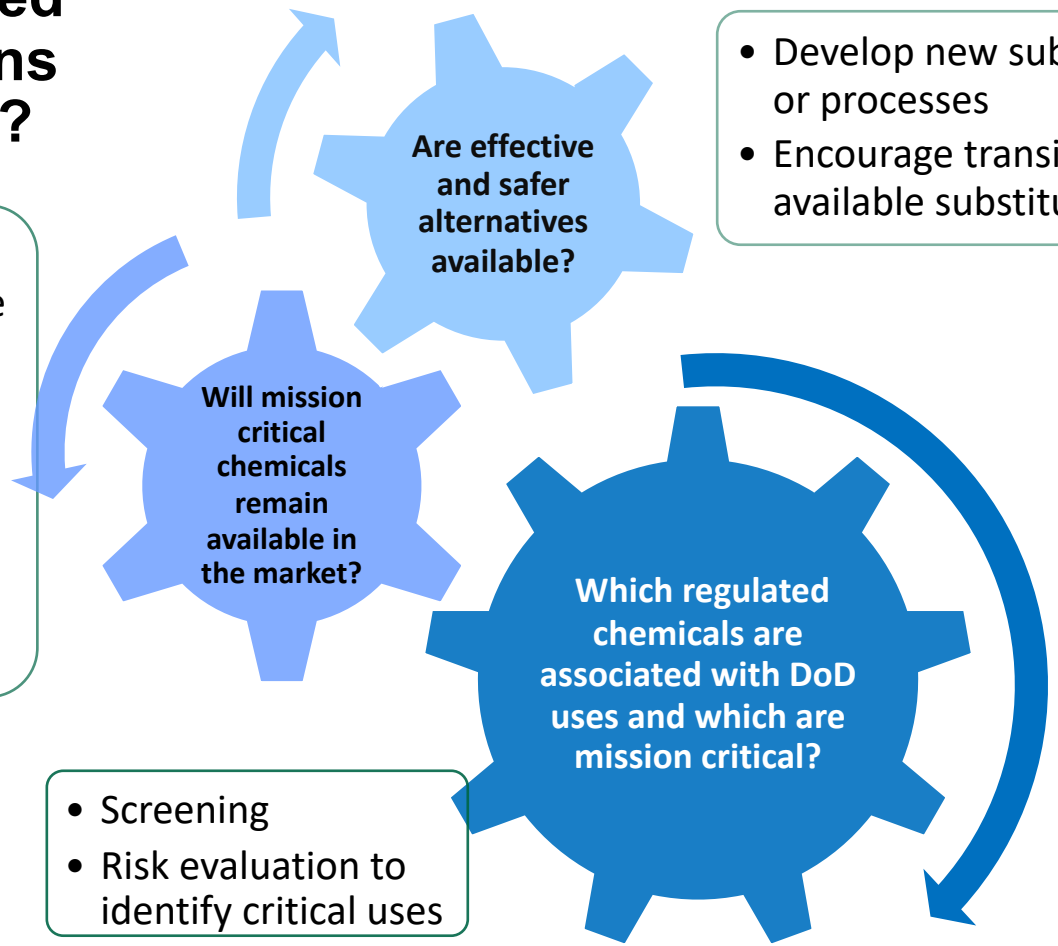
1. Chemical registration ("No Data, No Market")
2. Identify substances of very high concern (SVHCs)
3. Authorisation: SVHCs included on the Authorisation List are assigned a "sunset date" after which their use will be banned, unless an Authorisation is granted for a definite period of time.
4. Restriction: Used to limit or ban the manufacture, placing on the market (including imports) or use of a substance; but can impose any relevant condition, such as requiring technical measures or specific labels.

Global Chemical Regulations Potential Impacts

- Total ownership cost increases due to shrinking chemical and material sector defense industrial base
- Supply chain disruptions and risks
- Foreign supplier dependency
- Acquisition program schedule delays
- Limitations on where DoD can employ or sell systems
- System and product performance and availability issues due to less effective alternative materials, unmanaged material substitutions, and use of counterfeit chemicals/materials
- Suppressed innovation by decreasing design choices due to highly regulated chemical or unavailability of chemicals/materials
- Increased innovation due to need for alternatives
- Substitution regret

Identifying Risks and Taking Action

What are mission risks associated with Global Chemical Regulations and what do we do about them?



- Develop new substitutes or processes
- Encourage transition of available substitutes

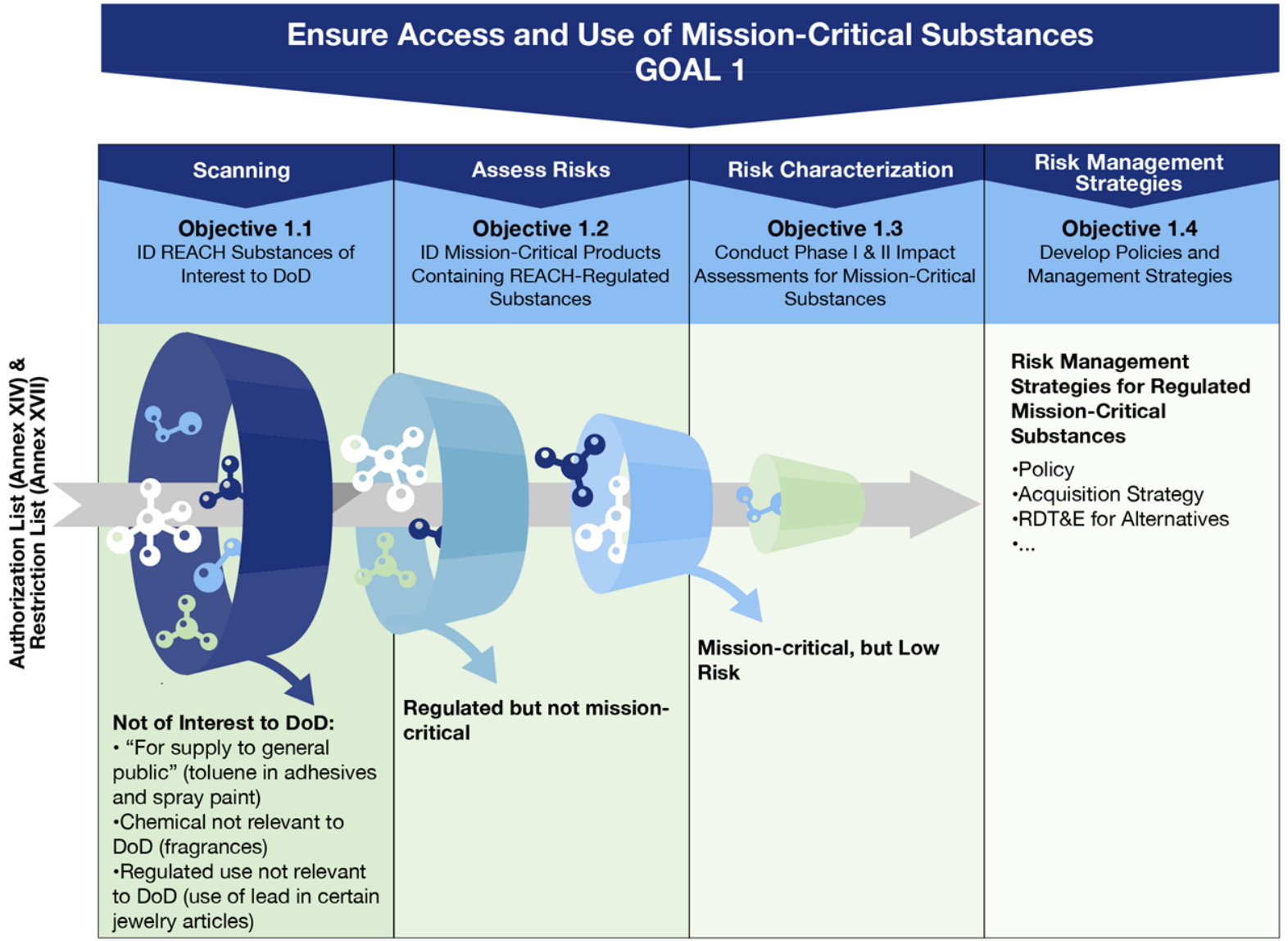
- Risk evaluation for the potential for obsolescence
- Engage chemical manufacturers, suppliers, and distributers to evaluate:
  - Fragility
  - Criticality
  - **Obsolescence**

- Screening
- Risk evaluation to identify critical uses

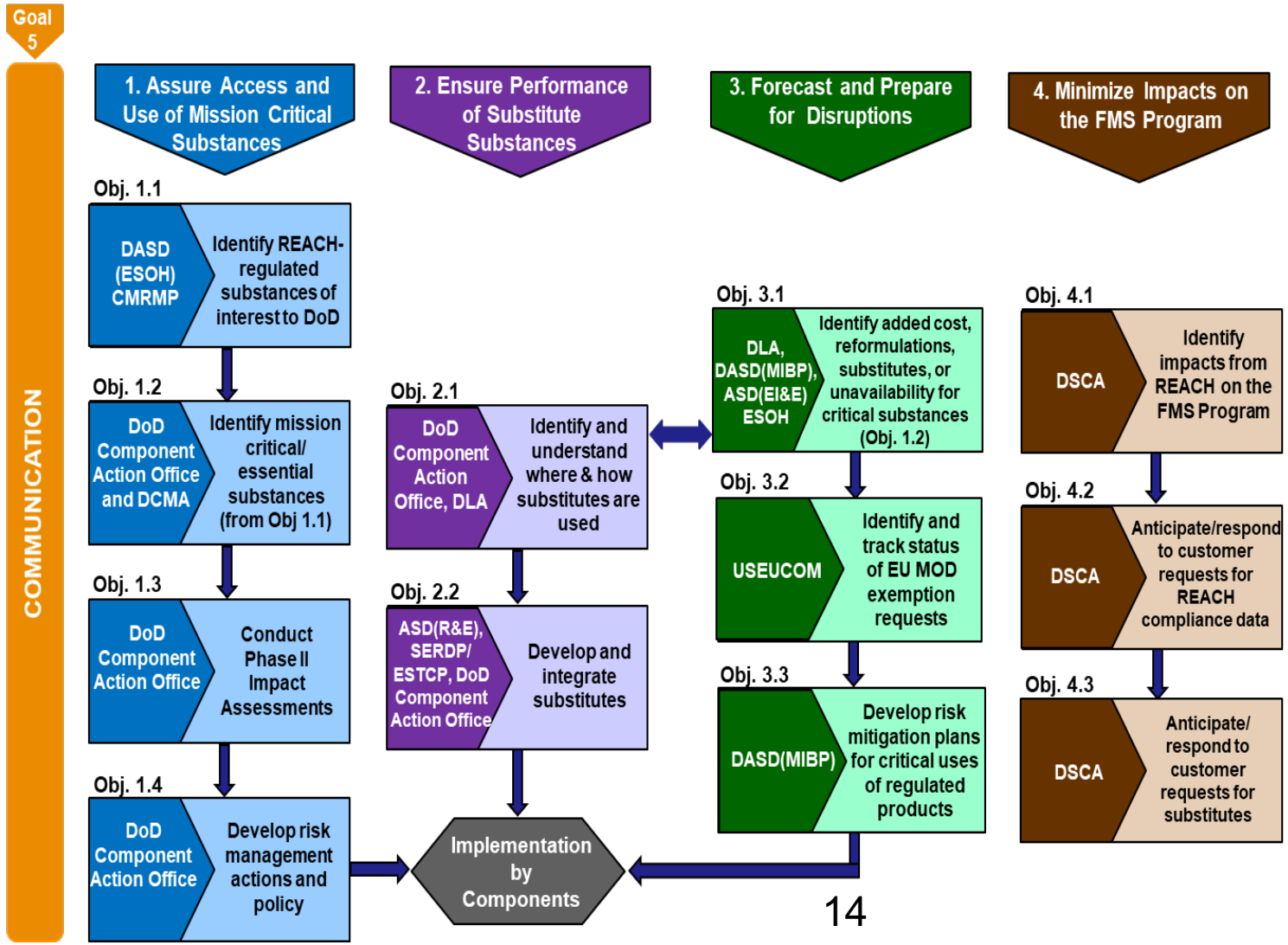
DoD Actions to Reduce Mission Risks Associated with Global Chemical Regulations

Challenge: How to effectively manage so many potential risks?

DoD REACH Strategic Plan – A Common Framework for Assessing Global Chemical Regulatory Risks



REACH Strategic Plan Test Case: Strontium Chromate



- Strontium chromate 2019 sunset date is one of the higher REACH risks for Air Force units in the EU
- Map ongoing actions against Strategic Plan requirements
- Identify gaps in risk mitigation

"TSCA First 10 High Priority Chemicals" – DoD Uses

- TSCA required EPA to initiate risk evaluations on 10 chemicals from the list of chemicals on EPA's TSCA Work Plan for Chemical Assessments and to complete the risk evaluations by December 22, 2019. EPA most likely will need the six-month extension from December 2019 to June 2020 to complete all 10.
- The first group of chemicals already under evaluation are:
  - 1,4-Dioxane
  - 1-Bromopropane
  - *Asbestos **
  - Carbon Tetrachloride
  - *Cyclic Aliphatic Bromide Cluster **
  - Methylene Chloride
  - N-methylpyrrolidone
  - *Pigment Violet 29 **
  - Tetrachloroethylene
  - Trichloroethylene

  ** No mission critical uses identified*
- The first 10 chemicals are setting the pattern for future EPA risk evaluation activities under TSCA.

TSCA "Next 20 High Priority Chemicals" Undergoing Prioritization

Chemical Name	CASRN
Dibutyl phthalate (DBP) ✓	84-74-2
Butyl benzyl phthalate (BBP) ✓	85-68-7
Di-ethylhexyl phthalate (DEHP) ✓	117-81-7
Di-isobutyl phthalate (DIBP) ✓	84-69-5
Dicyclohexyl phthalate (DCHP)	84-61-7
p-Dichlorobenzene	106-46-7
o-Dichlorobenzene	95-50-1
1,1-Dichloroethane	75-34-3
1,2-Dichloroethane	107-06-2
1,1,2-Trichloroethane	79-00-5

Chemical Name	CASRN
Ethylene dibromide	106-93-4
1,2-Dichloropropane	78-87-5
trans-1,2-Dichloroethylene	156-60-5
4,4'-(1-Methylethylidene)bis[2,6-dibromo-phenol] (TBBPA) ✓	79-94-7
Tris(2-chloroethyl) phosphate (TCEP) ✓	115-96-8
Phosphoric acid, triphenyl ester (TPP)	115-86-6
Phthalic anhydride	85-44-9
1,3-Butadiene	106-99-0
1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexa-methylcyclopenta [g]-2-benzopyran (HHCB)	1222-05-5
Formaldehyde	50-00-0

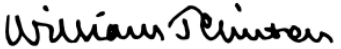
✓ denotes on EC Action List

✓ denotes on EC Watch List

Interagency Review – EO 12866 and EO 13563

- **In 1993, President Clinton issued Executive Order (EO) 12866, Regulatory Planning and Review, which directed agencies to work together when creating regulations, and tasked the Office of Management and Budget (OMB) with carrying out the review function:**

(b) *The Office of Management and Budget.* Coordinated review of agency rulemaking is necessary to ensure that regulations are consistent with applicable law, the President's priorities, and the principles set forth in this Executive order, and that decisions made by one agency do not conflict with the policies or actions taken or planned by another agency. The Office of Management and Budget (OMB) shall carry out that review function. Within OMB, the Office of Information and Regulatory Affairs (OIRA) is the repository of expertise concerning regulatory issues, including methodologies and procedures that affect more than one agency, this Executive order, and the President's regulatory policies. To the extent permitted by law, OMB shall provide guidance to agencies and assist the President, the Vice President, and other regulatory policy advisors to the President in regulatory planning and shall be the entity that reviews individual regulations, as provided by this Executive order.



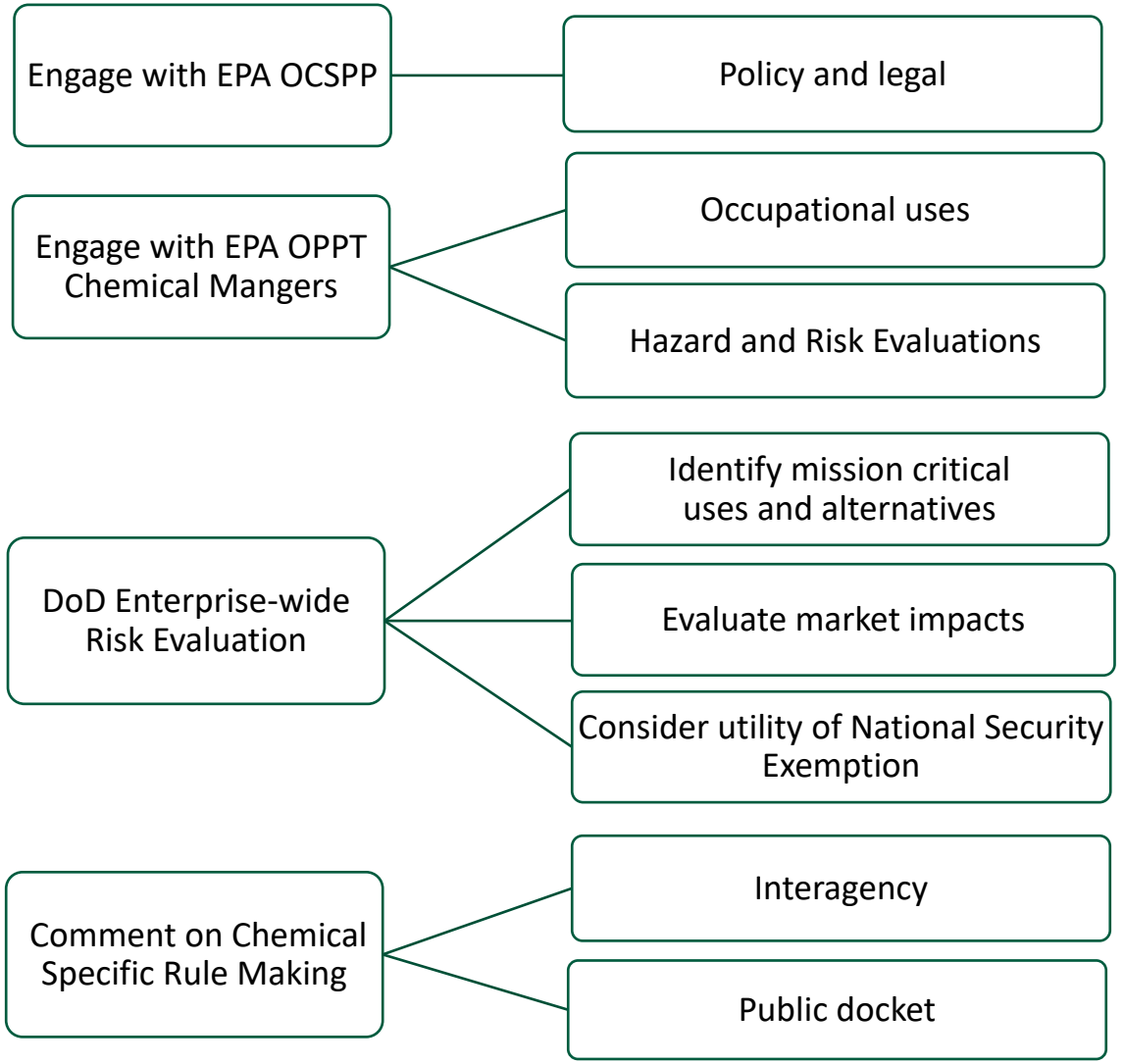
THE WHITE HOUSE,
September 30, 1993.

- **In 2011, President Obama supplemented and reaffirmed EO 12866 by issuing EO 13563, Improving Regulation and Regulatory Review, and included principles that agencies must implement when promulgating regulations:**

among other things: (1) propose or adopt a regulation only upon a reasoned determination that its benefits justify its costs (recognizing that some benefits and costs are difficult to quantify); (2) tailor its regulations to impose the least burden on society, consistent with obtaining regulatory objectives, taking into account, among other things, and to the extent practicable, the costs of cumulative regulations; (3) select, in choosing among alternative regulatory approaches, those approaches that maximize net benefits (including potential economic, environmental, public health and safety, and other advantages; distributive impacts; and equity); (4) to the extent feasible, specify performance objectives, rather than specifying the behavior or manner of compliance that regulated entities must adopt; and (5) identify and assess available alternatives to direct regulation, including providing economic incentives to encourage the desired behavior, such as user fees or marketable permits, or providing information upon which choices can be made by the public.

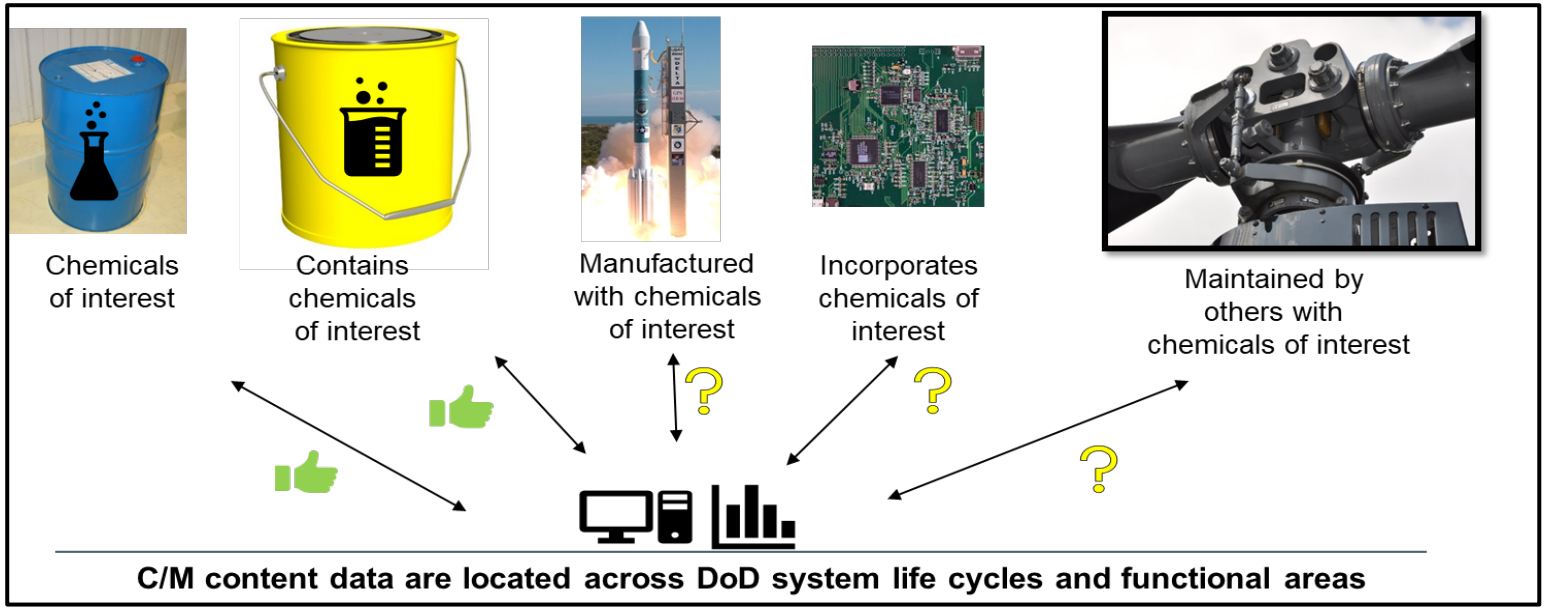
THE WHITE HOUSE,
January 18, 2011.

DoD Interagency Engagement on EPA TSCA

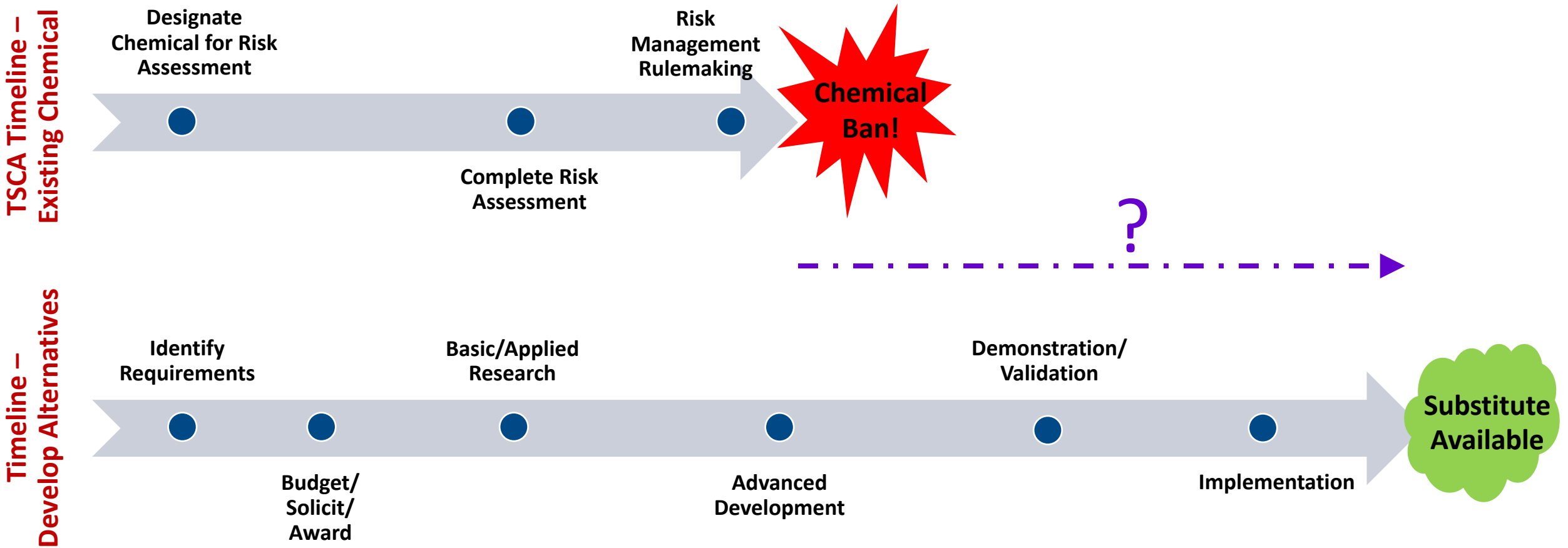


Managing Chemical Regulatory Risks
Key Challenges

Imminent Need to Create Transparency in the Supply Chain



Need Safer Alternatives But Timing and Performance is Critical



Contact Information

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