



Emerging Contaminants Directorate

DoD Interests in Emerging Contaminants

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What is an Emerging Contaminant?

Chemicals & materials

✿ With:

- ◆ Perceived or real threat to human health or environment
- ◆ Evolving regulatory interest

✿ May have:

- ◆ Insufficient human health or environmental data/science
- ◆ New detection limits
- ◆ New exposure pathways

DoD Strategic Vision for ECs

Protect People & Enhance Readiness

- ◆ Ensure application of sound, thorough science in risk assessments
- ◆ Make processes transparent and inclusive
- ◆ Make sound risk management decisions on emerging contaminants

Why the Emerging Contaminant Initiative Started

Chrome VI

Ni-Cd

Nanomaterials

ODS

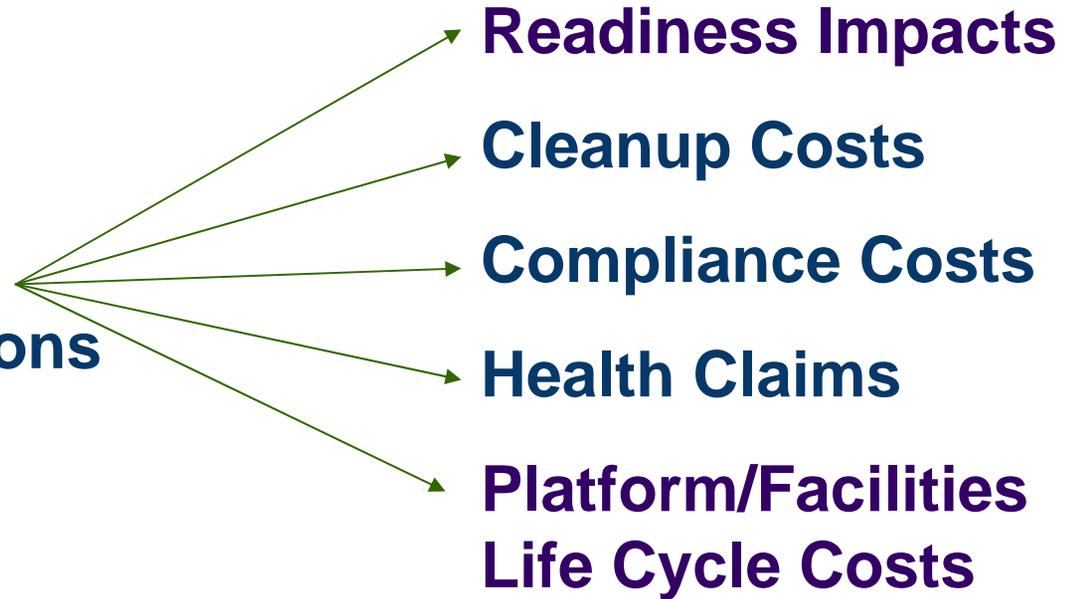
Perchlorate

- To identify chemical/material issues early to program managers by scanning for EC and assessing their risks
- To avoid delays, supply chain interruptions, costly retrofit costs, ESOH concerns, etc.
- To identify risk management options and obtain enterprise buy-in for pursuing the most appropriate means to reduce unacceptable risks

The Need for Action

Proactive vice Reactive

**Early Emerging
Contaminant Actions**



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Small investment here

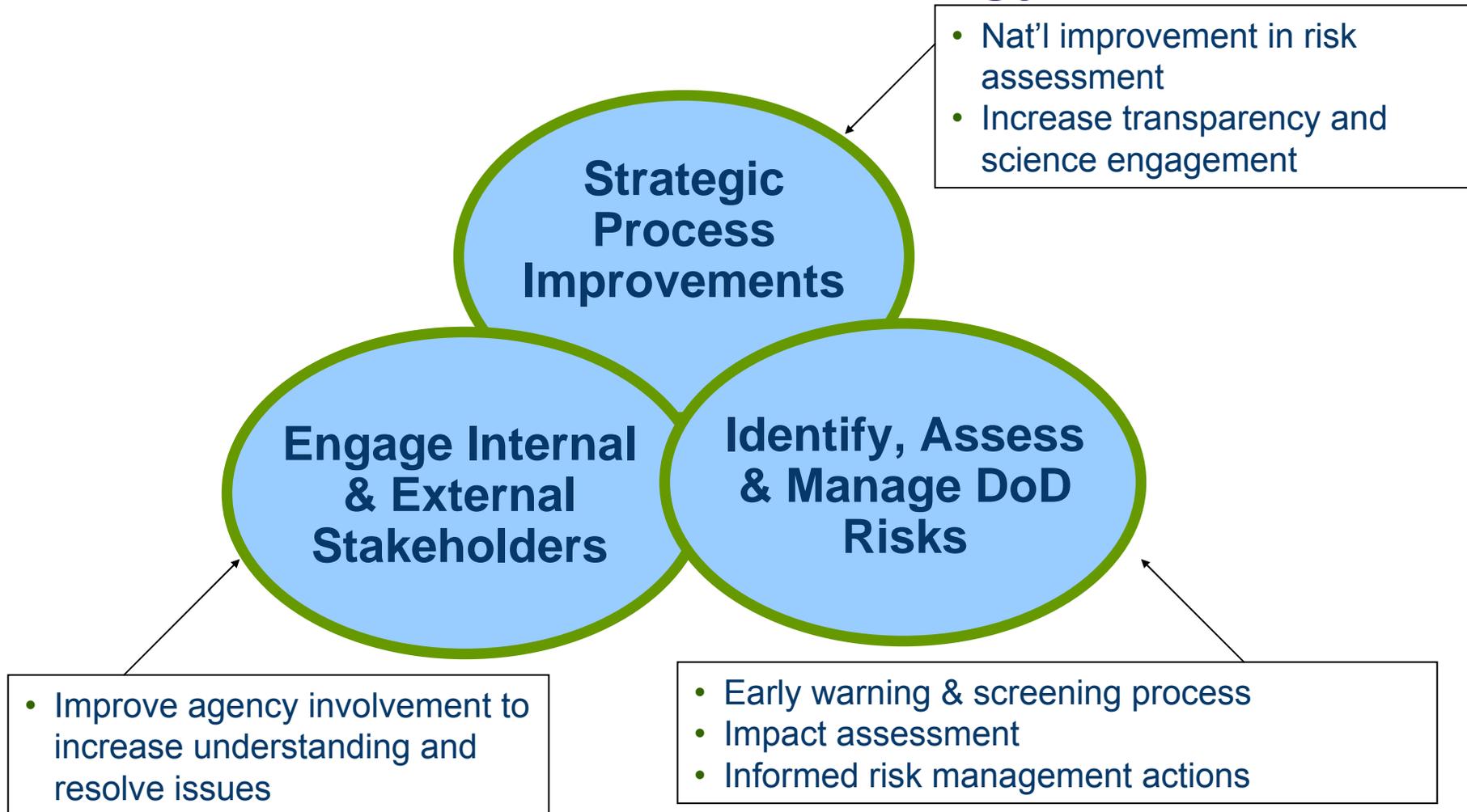
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Large impact here

Emerging Contaminants Directorate Will...

- Encourage & leverage coordinated response and avoid duplication of effort.
- Collect and develop data to inform science, policy and regulatory decisions
- Provide common source of accurate and early information

Three Part Strategy



Materials/EC Tracking Process

Over-the-Horizon Scanning



May be of interest

Review literature, periodicals, regulatory communications, etc.

Watch List



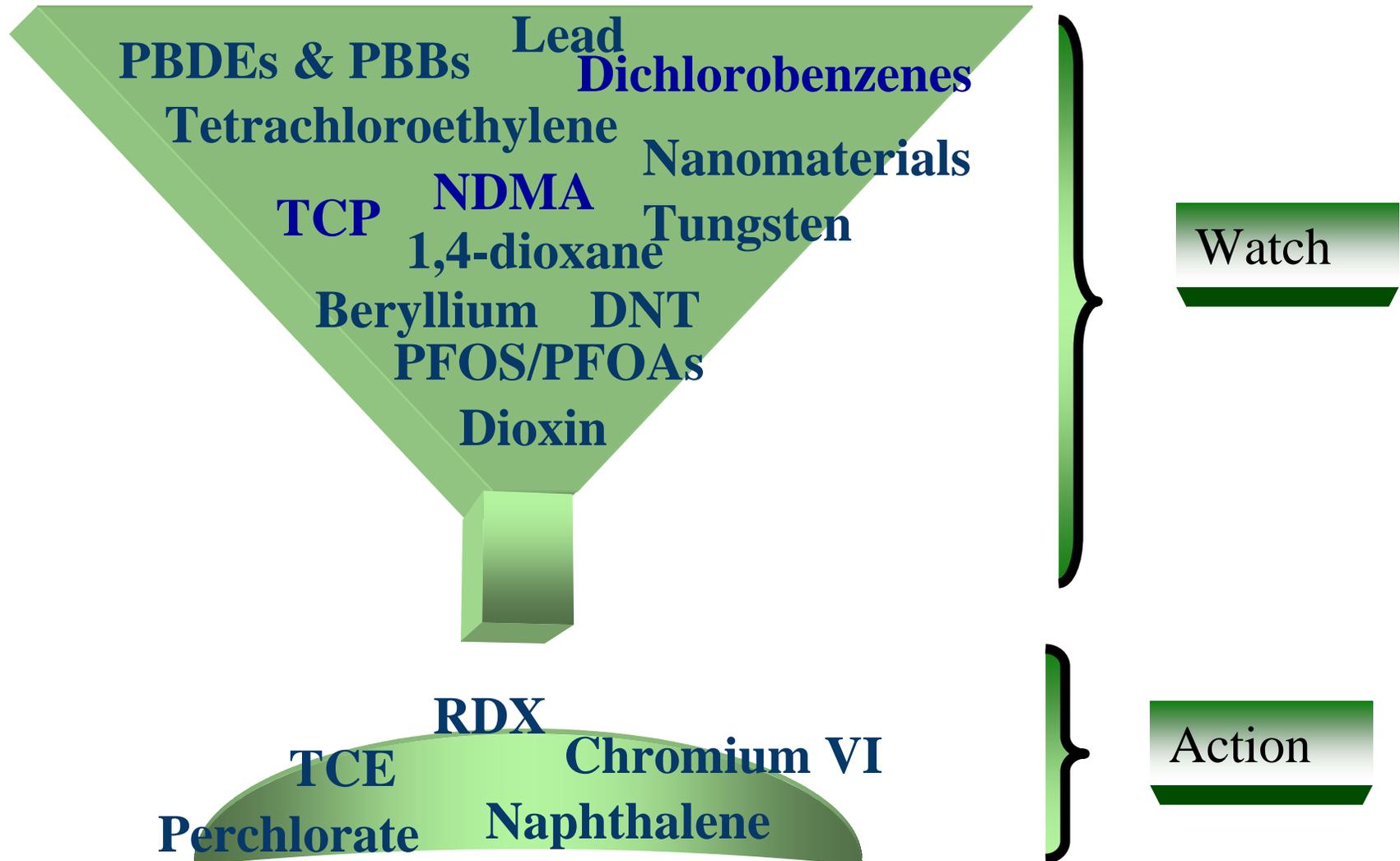
Probable mission or budget impacts

Monitor events; conduct Phase I qualitative impact analysis

Action List

Conduct Phase II quantitative impact analysis; launch risk management actions,

Watch and Action Lists



Differences - Watch & Action List

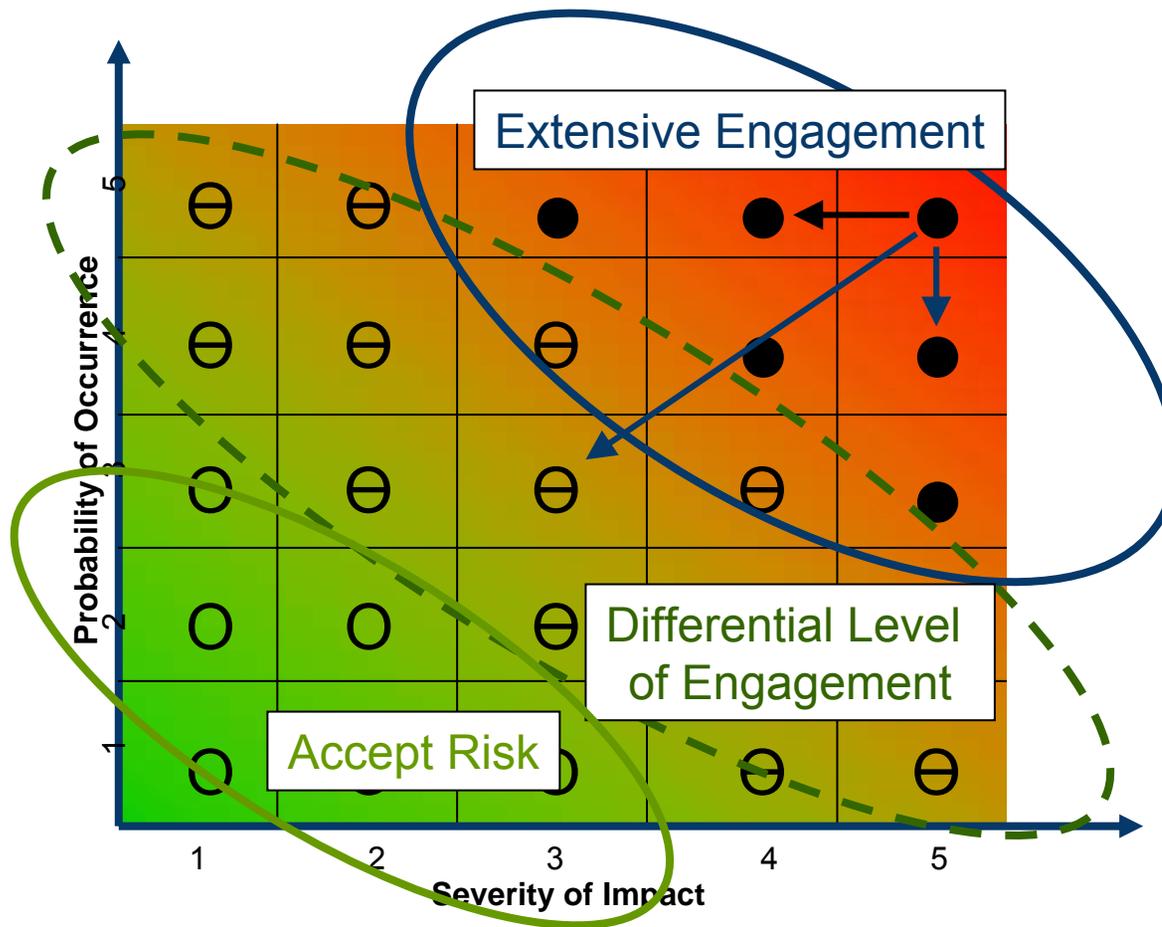
Watch List

- May impact DoD
- Limited analysis of impact – more qualitative
- Monitor external actions
- Updated regularly
- Short info sheets developed
- Minimal resources expended

Action List

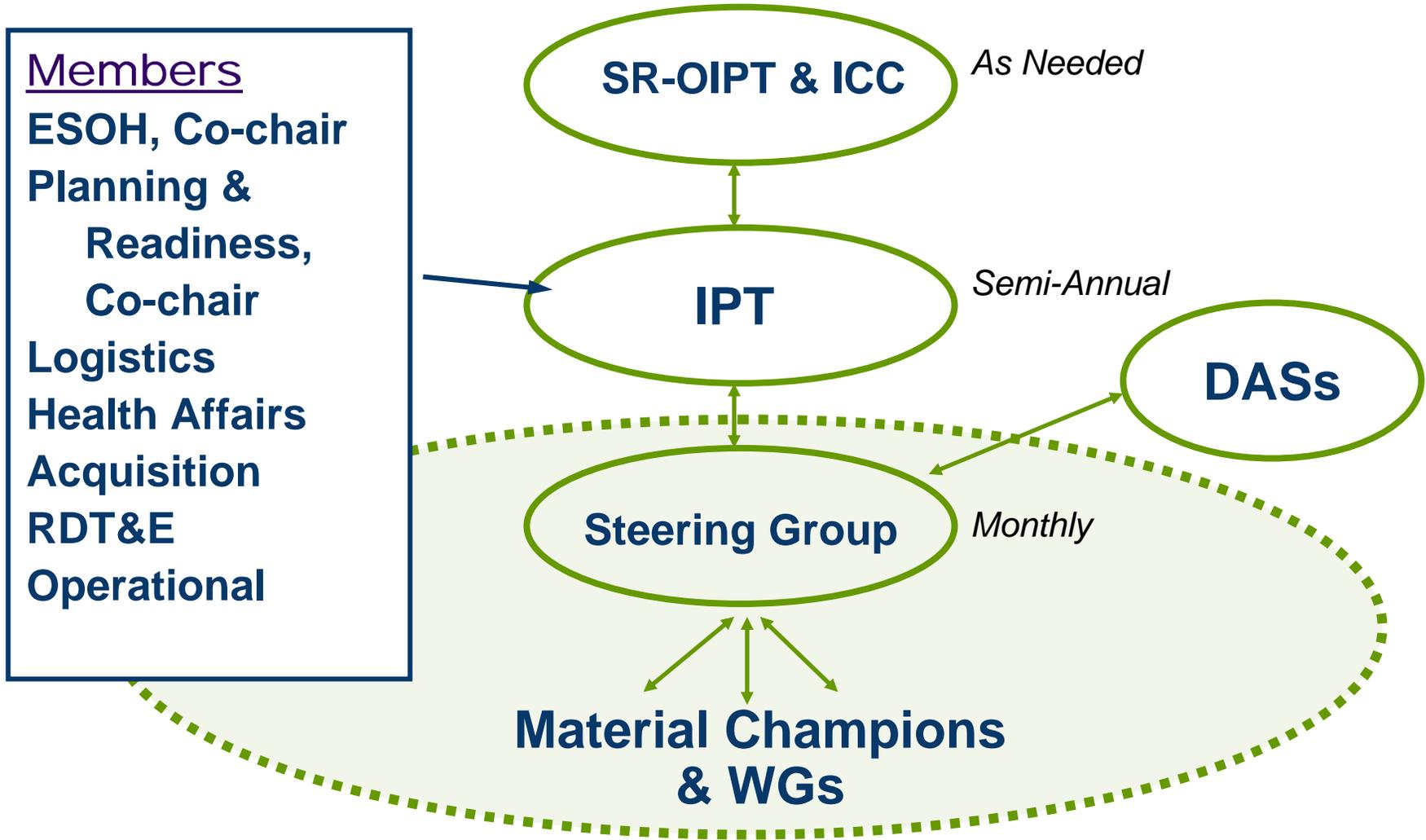
- Likely to impact DoD
- Detailed analysis of impact – more quantitative
- Take RM actions
- Executive info sheets developed
- Significant resources may be expended
- “Material champion” assigned

Integrated Risk Management Actions

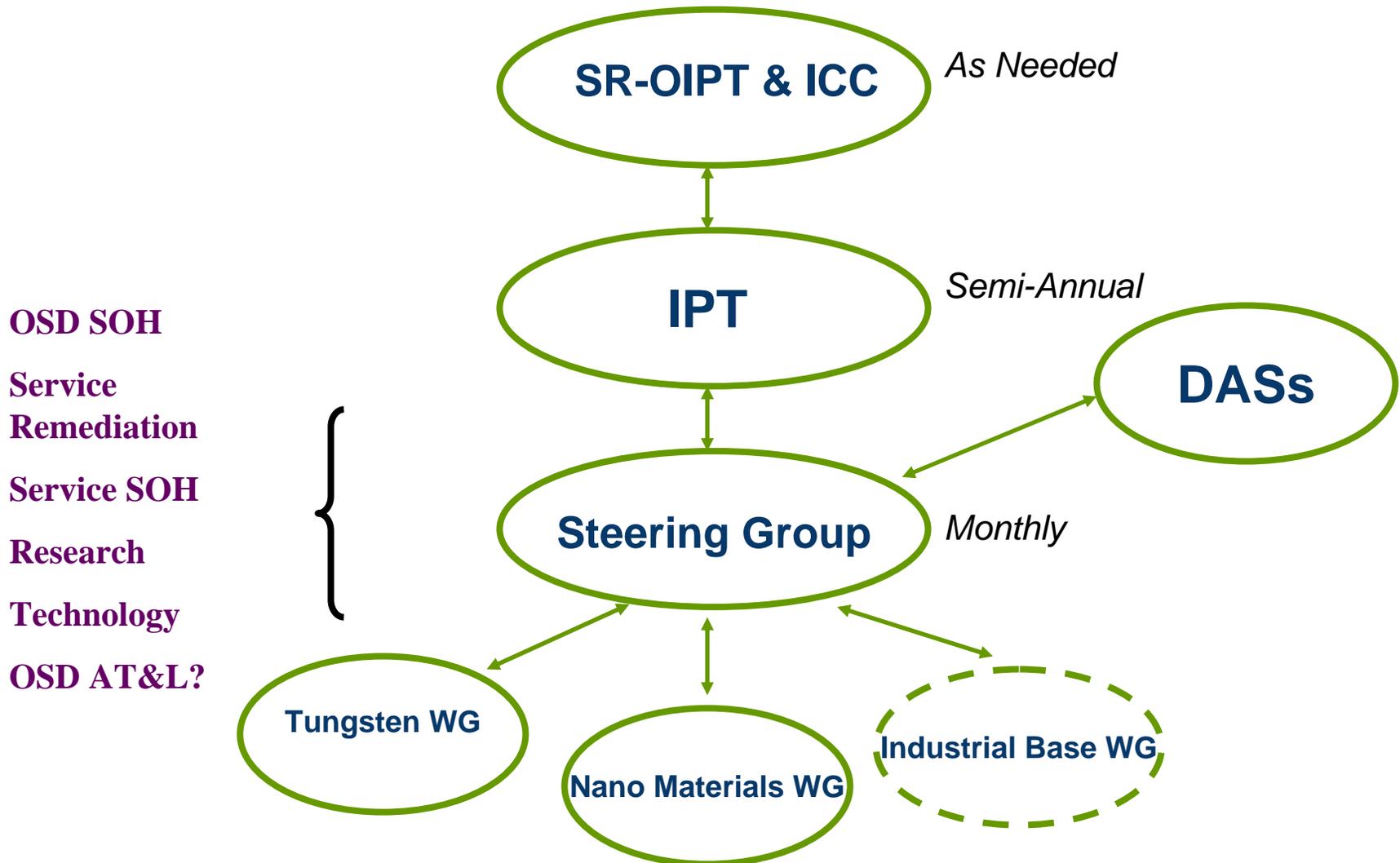


- Risk Assessment
 - Fill science gaps
 - Exposure assessment
 - Benchmark with Industry
- Risk Management
 - Material substitution
 - Process changes
 - RDT&E
 - Acquisition changes
 - Benchmark with industry
 - Stockpile material
 - Increase compliance monitoring
 - Additional training
- Risk communication

Vertical & Horizontal Integration



Vertical & Horizontal Integration



Making it Better: EC Industrial Base Working Group

❖ **Potential Membership**

- ◆ DoD industrial policy
- ◆ Service acquisition commands
 - » Systems Engineering
 - » ESOH specialists
- ◆ DoD industrial facilities
- ◆ Defense Logistics Agency
- ◆ Other DoD material database resources
- ◆ Cognizant military authorities
- ◆ OEMs
- ◆ Providers of material management services

❖ **Task**

- ◆ Collect and synthesize comprehensive information about material uses and alternatives to support informed decision making

Summary

• **EC management requires new thinking**

- ◆ Proactive vice reactive
- ◆ Investments before regulatory action

• **Potential large payback**

- ◆ Protects people, mission and assets
- ◆ Sustainable

**DoD Emerging
Contaminant Website!**

www.DODMeritinfo.net

www.DENIX.osd.mil