

# NIST Interoperability Standards Update

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# The NIST Role

*Energy Independence and Security Act (EISA) of 2007  
Title XIII, Section 1305.  
Smart Grid Interoperability Framework*

In cooperation with the DoE, NEMA, IEEE, GWAC, and other stakeholders, **NIST** has “primary responsibility to **coordinate development of a framework** that includes protocols and model standards for information management **to achieve interoperability of smart grid devices and systems...**”

# PSTT Activities

Goal #	Goal	Metric	Industry Need	Priority	PSTT Lead
1	Oversee the process of moving PSTT documents to IEEE Standards and Guides and to expedite the process	Formed WG addressing: <ul style="list-style-type: none"> <li>- Test and calibration procedures</li> <li>- Synchronization techniques</li> <li>- PMU Installation requirements and typical station configurations</li> </ul>	IEEE WG Formed <b>Mid '09</b> Documents to be completed on <b>January '11</b>	High	Group effort: Jim Hackett, Paul Myrda, Vahid Madani, and Damir Novosel <b>Many members of PSTT</b>
2	Identify and formalize the gaps not in present standards	Develop white paper	<b>Oct. '10</b>	High	Mark Adamiak - Interoperability Farnoosh Rahmatian Testing
3	Define certification of PMUs	Develop white paper	<b>Nov. '10</b>	High	Jerry Stenbakken
4	Integration of IEC 61850 and C 37-118	Documents developed; Incorporated in the Standard	<b>March '11</b>	High	Alex Apostolov Christoph Brunner
5	Phasor Data Concentrator Requirements	Develop specification or use existing one	<b>Dec. '10</b>	High	Tony Weekes
6	PMU-PDC/PDC-PDC Communication Methods	Develop a guide to be used by and coordinated with <b>IEEE and IEC</b>	<b>March '11</b>	High	Henry Huang
7	Phasor Data Concentrator Testing and Verification Standard	Develop a guide to be used by and coordinated with <b>IEEE</b> and IEC to develop a standard	<b>March '11</b>	High	Mladen Kezunovic
8	Guide on using PMU as part of the multi-function devices.	Develop a guide	Sept. '11	Medium	Krish Narendra
9	Develop guide on Requirements for Combined Applications using Synchronized Measurement Data.	Develop a guide	Dec. '11	Low	Yi Hu
10	Support other TT as needed	As needed (e.g. Coordination with DNMTT on NASPInet)		Medium	V. Madani/ D. Novosel & Respective TT Leads

## PSTT Activities Related to NIST

### Items for Special Focus:

- On critical path
- Require focused resources to speed up and reach the target
- Coordination and Industry Involvement: IEEE, IEC, CIGRE
  - PSTT membership is involved in the above

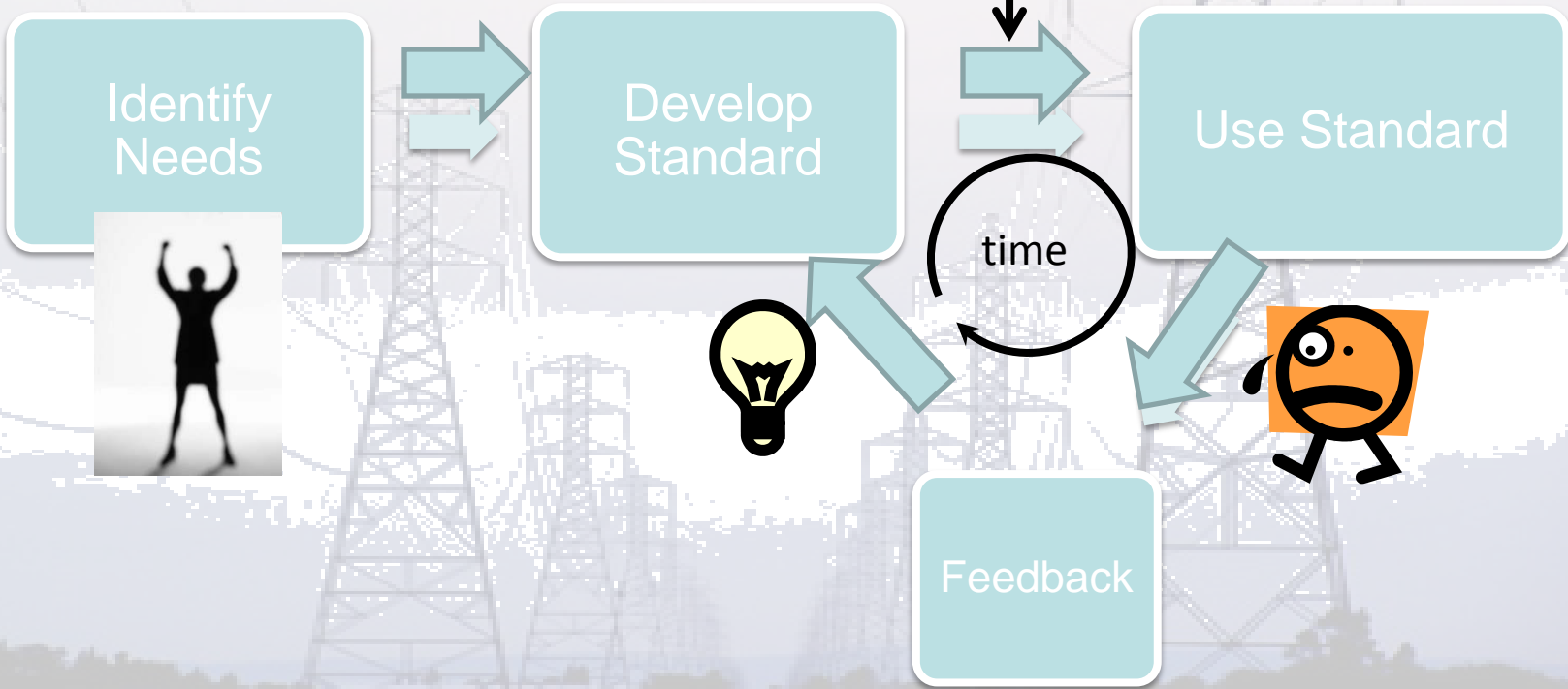
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# Development Plan

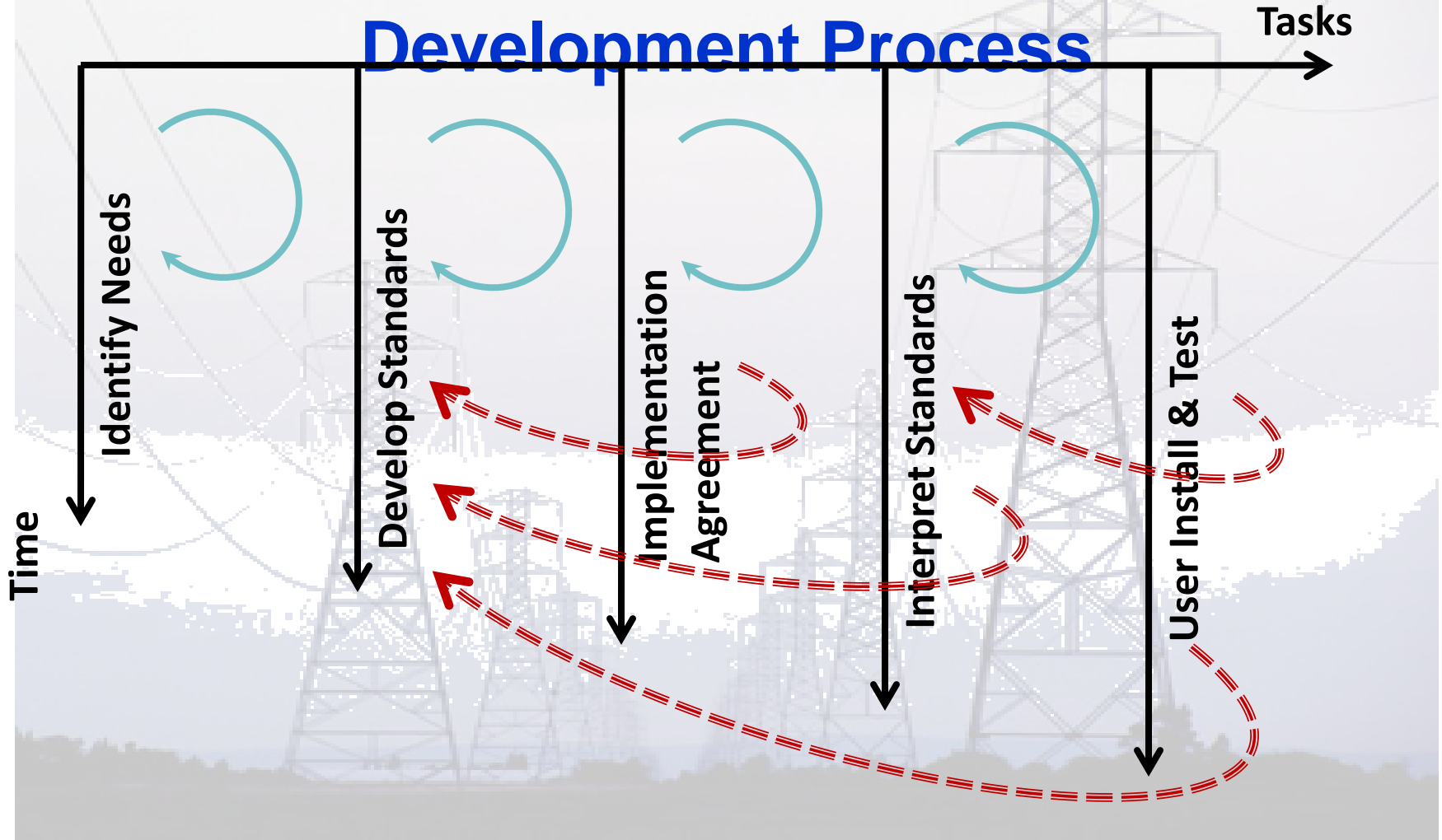
- **Objective:** Develop methods and documents to fill gaps of current standards for synchrophasor systems to address urgent industry needs in ARRA deployment projects
- **Approach:** PSTT to lead initiatives by using resources contracted by NIST to accelerate the development process. Engage industry to make process successful.
- **Plan:**
  - **Step one:** Clearly identify or define gaps through examples/use cases and align priorities with industry needs – **December 2010**
  - **Step two:** Develop draft methods and documents. Work in cooperation with standard organization for including those documents into appropriate standards.  
Review by IEEE/IEC and NASPI/PSTT – **February and May 2011**
  - **Step three:** Publish developed method as NASPI/PSTT guidelines, and support PSTT to facilitate interoperability forums – **October 2011**
  - **Step four:** Finalize the standardization process

# Standards Development Process

Interpretation



# Accelerated/Concurrent Standards Development Process



**Please Join the PSTT Breakout Session to  
discuss support of the NIST  
interoperability in coordination with  
IEEE, IEC, and CIGRE initiatives and the  
Roadmap to Standards**

