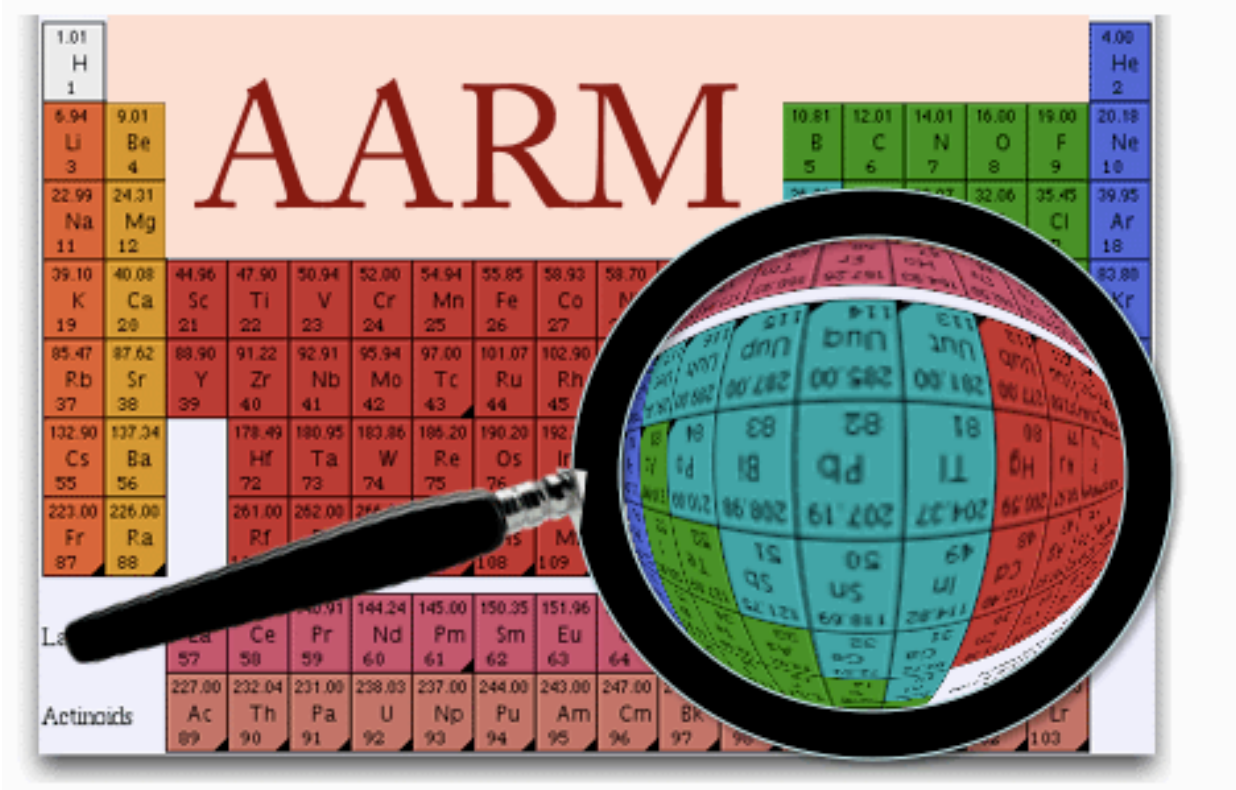
Everybody's gotta have a Logo!



Management Structure for the S4

Suggestion: Hire a Project Manager for the S4
(full time? 1/2 time? Shared with whom? Identify ahead of time?)

Only one PI and several co-PI's (need to identify them)
Cannot be a PI on more than one S4

Define our scientific team and our engineering team

1. Senior Investigator (list CV, but no "current and pending support" form)
2. Level 2 Managers: scientists and engineers
3. International Advisory Board (with specific tasks)
4. Choose Engineering firm?
5. Find reps for all cross cutting disciplines

Year 1 tasks

WBS 1: Design "Facility for AARM" (FAARM)

Determine AARM-related needs of ISE

Identify limited R&D required

HE neutron detection in concert with SD DUSEL R&D

Immersion tank R&D (water-based scint, purification)

2nd generation Betacage

Participate and plan SUSEL screening program

EPSCoR, MRI, Donations from existing sites

Start Training program between SD and Kimballton/Soudan

WBS 2: Characterize the DUSEL environment

Compile all exisiting and historical data

Cavern U/Th/K (chemical and γ spectroscopy), Rn survey

Cross-calibrate with ILIAS (Jan Kiesel - standard survey)

WBS 3: Create AARM integrative group with website

Integrate with other S4 groups (DUSEL integration workshop)

Identify new user base (Synergies workshop -*shared with cross-cutting S4 and E&O)*

Year 1 budget

Design “Facility for AARM” (FAARM) 300k

- Project engineer (15 weeks) $100k
- Structural Engineer (water shielding and water tank)
  How much is facilities???
- Video conferencing, supplies, etc $2k
- Secretarial support $10k

Characterize the DUSEL environment 80 k

- Travel to site (10 trips of 1 week each) $15k
- 1 mo. Summer salary (SD person?) $9k
- Summer travel for others $10k
- 2 undergrads, 2 grads to help (E&0, collaborate with EPSCoR) $20k
- Host Jan Keisel & staff (ILIAS) $30k

Create AARM integrative group with website 100k

- Software engineering support $50k
- DUSEL integration workshop $20k
- Synergies workshop $25k

Year 2 tasks

Design FAARM

Design and implementation plan for Water-shielded room and footprint of immersion tank

Auxiliary services (clean shop, purification plant, sample prep, wet chem lab, electroforming

First pass cost and schedule

R&D on target opportunities (priority on Immersion tank R&D)

Training (Schedule courses at SUSEL, invite participants, E&O)

Start SUSEL screening (part of staged DUSEL design), appoint staff

Characterize the DUSEL environment

Finish initial surveys

Design/Implement longterm muon/high energy neutron monitoring

Design and cost overall Radon mitigation plan

Expand website functionality

Create user interface for screening *(incl. existing sites, ILIAS)*

Create Materials Database and Software repository

Consolidate new user base (2nd Synergies workshop)

Year 2 budget

Design FAARM 400k

Project engineer (15 weeks) $100k

Structural Engineer (water shielding and water tank)

DUSEL AARM Workshop $20k

R&D (not yet specified) $40k

Characterize the DUSEL environment 100k

Engineering (Rn survey, mitigation) $30k

Muon and HE neutron system $30k

1 mo. Summer salary (SD person?) $9k

Summer travel for others $10k

2 undergrads, 2 grads to help (E&0, collaborate with EPSCoR) $20k

Expand website functionality 70 k

Software support $40k

2nd Synergies workshop $25k

Year 3 tasks

Complete FAARM design

Finalize Immersion tank design and integrate elements with design of DUSEL facility

Screening & Cu Electroforming proceeding at SUSEL

Training Seminars at SUSEL

Maintain and Expand Integrative Website

Screening schedules integrated between SUSEL and other sites

Include design plans from new user base (3nd Synergies workshop)

Year 3 budget

Complete FAARM design 350k

Project engineer (15 weeks) $100k

Structural Engineer (water shielding and water tank)

DUSEL integration workshop $20k

1 mo. Summer salary (SD person?) $9k

Summer travel for others $10k

2 undergrads, 2 grads to help (E&0, collaborate with EPSCoR) $20k

Maintain and Use Integrative Website 60k

Software support $30k

3nd Synergies workshop $25k

WBS Structure

1. Design FAARM
   - 1.1 Cavern location and design – interface with Sanford
   - 1.2 Water Tank Design
     - 1.2.1 Structural design
     - 1.2.2 Physics reach and active elements
   - 1.3 Design throughput, sensitivity, type, and number of Screeners
     - 1.3.1 Gamma Counting (incl. NAA screening)
     - 1.3.2 Alpha/Beta Counting
     - 1.3.3 New Technologies
   - 1.4 R&D Prioritization and funding disbursement
   - 1.5 Materials acquisition and storage
     - 1.5.1 Solid (inc. Cu stockpiling, lead, common shielding material)
     - 1.5.2 Liquid (storage of cryogens, water, liquification plant)
   - 1.6 Materials purification and assay
     - 1.6.1 Cu Electroforming
     - 1.6.2 ICPMS and other chemically assisted processes
     - 1.6.3 Cryogen purification
   - 1.7 Utilities and auxiliary needs (wet chem, sample prep, clean shop,)

WBS Structure

2. Characterize backgrounds
   1.1 Radon monitoring and Design of Radon Mitigation
   1.2 Cosmogenic Backgrounds
   1.3 Gamma, (α,n) and fission backgrounds
   1.4 Characterization of Shielding

3. AARM Integration and Collaboration Building
   3.1 IT website management
   3.2 Integration with other fields (Bio, Geo, etc)
   3.3 Collaboration with ILIAS – new FP7 in 2010?
   3.4 E&O
   3.5 Nuclear database and Counted Materials
   3.6 Screening, training, staffing (Integrate with Sanford efforts)

LISTS:

A. All who want to be on the mailing list and know what is going on
B. Author List
C. List of L2 Managers and their WBS
D. List of tasks and who does what.

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