



Indiana Mesonet Advisory Board/Council

Survey Results




Purpose, Mission, Vision



Creating a Strategic Plan





Indiana Mesonet Advisory Board/Council

Dislike Not happy Neutral Good start Really like

Indiana Mesonet Advisory Board Purpose



Purpose:

The purpose of the board is to advise the Director of the IN-SCO and Director of the Indiana Water Balance Network (IWBN) regarding the strategic development of the Indiana Mesonet and to otherwise advance the development of the Indiana Mesonet in accordance with its mission.

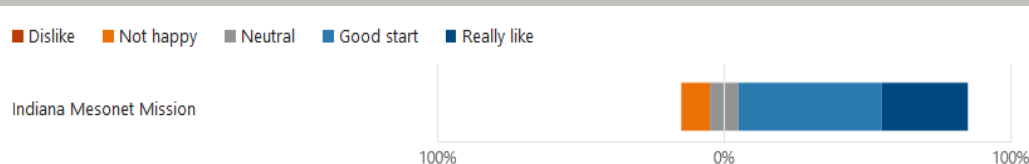
- "The purpose of the board is to **bring new perspectives to the task** of advising the Director of the IN-SCO and Director of the Indiana Water Balance Network (IWBN). This **requires that the board promote** the strategic development of the Indiana Mesonet and to advance the development of the Mesonet in accordance with its mission."
- **Needs to be one group and not two.** Not a fan of mesonet. **Weather data network** is more understandable to a person not working in weather.
- **spell out what IN-SCO**
- Remove advising specifically the director positions and make it more of a **collective effort amongst stakeholders**. "The purpose of the board is to advise on the strategic development of the Indiana Mesonet and to otherwise advance the development of the Indiana Mesonet in accordance with its mission."
- Existing statement seems to convey that the Board's only or main purpose is to advise the IN-SCO and IWBN directors only, which seems a bit **short-sided or too limited?**



Mission

Develop and maintain research-grade, real-time environmental monitoring networks across Indiana that provides continuity with accurate data at a spatial resolution to contribute to resource management, research, and industry decision making.

- Is research-grade the correct term? Is **highly accurate** or **precise** a better terminology. Not sure that the term 'research' is always looked upon favorably.
- Drop the word "**industry**" from decision-making. Other sectors (like agriculture and weather) will make decisions based on these data too.
- Fails to mention contributing to "**forecasting**".
- Mission statement must be **impactful** and draw attention and interest!
 - Work is needed/rewording to provide better/more specific vs. vague wording and interpretation. "**environmental**"-mean different things.
 - Will provide a **denser surface weather observational network**.
 - What is meant by "**that provide continuity...**"?
 - "**at a spatial resolution to contribute to...**", the IMAB will know what this means but not stakeholders/state legislature assessing the mission statement. Consider **an "increased (or "dense") spatial resolution"** or **at a county or sub-county spatial resolution**. Something also needs to be added to last part of that sentence.
 - "**Resource management...**" again is vague. I know it's meant to be inclusive of various things, but still is vague. Adding in the fact that **a dense network could promote personal/organizational/sector awareness, proper response, and safety to hazardous/serious weather** would get better attention from readers.
 - "Research" and "industry decision-making" can be retained, but the mesonet would promote new research capabilities/subjects and facilitate better/more informed decisions. Still want mission statement to be fairly concise.



- *"A mesonet station present in each county that is properly serviced and maintained to the agreed upon standards, has targeted expansions through partnerships and resource building strategies. Accessible tools that aid in application and use of these new data."*
- I would like to see something about how these **research grade stations** in each county could further improve geospatial accuracy of the non-research-grade stations.
- Instead of *"agreed upon standards"*, refer to something concrete, like **World Meteorological Organization** (or the equivalent body for hydrology) standards.
- First part of statement is good and needed, second part is vague. Add to end **"to promote increased awareness, safety, and decisions"** or similar
- Add **"at least one mesonet station present in each Indiana county"** to imply a vision of having a more dense network than just one per county.



Vision

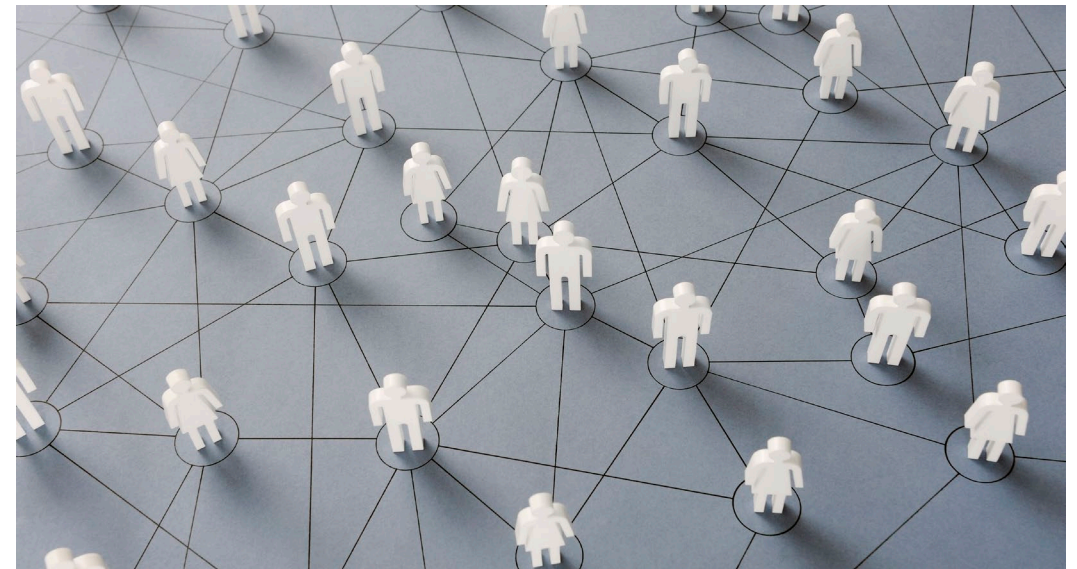
A mesonet station present in each county that is properly serviced and maintained to the agreed upon standards, has targeted expansions through partnerships and resource building strategies



Tackling the Elephant in the Room



One Network, multiple parts



Separate or Together

-How do you envision the two networks merging to allow them to retain their own identities?



- “regional teams” that are all under one umbrella
- Need one network and joint identity
- Full blessing and support from their respective home university and get an understanding of what the university's willing to do or allow and what they are not.
- I envision a single public-facing endeavor known as the **Indiana Mesonet**. When specific stations are accessed for information, it could include the specific network information. Potentially look into the Oklahoma Mesonet for identity and funding since they have merged several.
- *First I'd ask why it's necessary to retain separate identities (in the long run)?* If so, the Indiana Mesonet has two members... the Purdue Mesonet and the Indiana Water Balance Network. And that the IM is open to future members (networks) as may become applicable. (Currently unforeseen, but should remain open to it).



Separate or Together

-How do you envision the two networks merging to allow them to retain their own identities?



- The missions of the two networks should be clarified and distinguished. The networks need to be portrayed as complementary but not redundant. Ideally, a merger/partnership of the networks should convey that the value generated is more than additive.
- Both would need to articulate before merging **how they would work together**, and how they would **work to solve different issues**.
- Agree with the overall consensus at last IMAB meeting that to stakeholders and for funding procurement, this needs to be presented as a **unified effort** going forward and for future mesonet sites. I'm afraid of the *political* and *possessive* nature of existing circumstances and future unity and expansion, and how that could hold things back.
- **Merge** the public facing elements such as name, outreach efforts, funding, etc. Internally, keep the networks **separate** for *bookkeeping, admin, maintenance, and promotion* by each university as their own network. So basically, you have a two-faced system that is singular in the big public facing picture but then becomes individual as you scale down internally.





Funding Vision - HOW

- State and national funding
 - State appropriations (through the DNR)
 - Industry funded
 - Home University
 - Host County
 - Sponsorships from private (seed, pest, wine, etc.)
 - Premium Services -that doesn't counter - free to all mission
- ❖ Grant Support - for stations
 - ❖ Private Sector - for stations
 - ❖ State Appropriations - for network
 - Initial two-year state government funded investment to build out the system
 - *Couple private and local government buy-in for long-term sustainability*
 - *low dollar amount from the state to maintain employment*



Distributed Funds

- One network, one voice? Separate? As a Unit? Combined?
- Equally
- 501c3- to navigate hurdle of multiple networks
- financial advisory committee created to manage funding
- prorating according to current budgets
 - *over time (and as we should combine all new stations!)*
- Could be a difficult, sensitive issue. Need to think big picture and getting funding in general for a combined effort vs. worrying too much about this for now with both ongoing mesonets.
- decide cost per station and cost of upkeep per station, then divvy money out based on number of stations

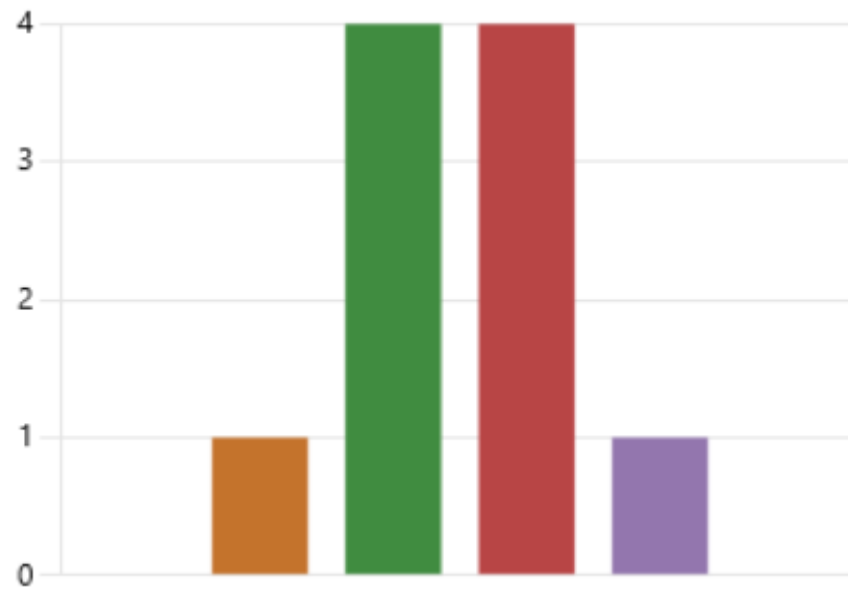
The Advisory Board



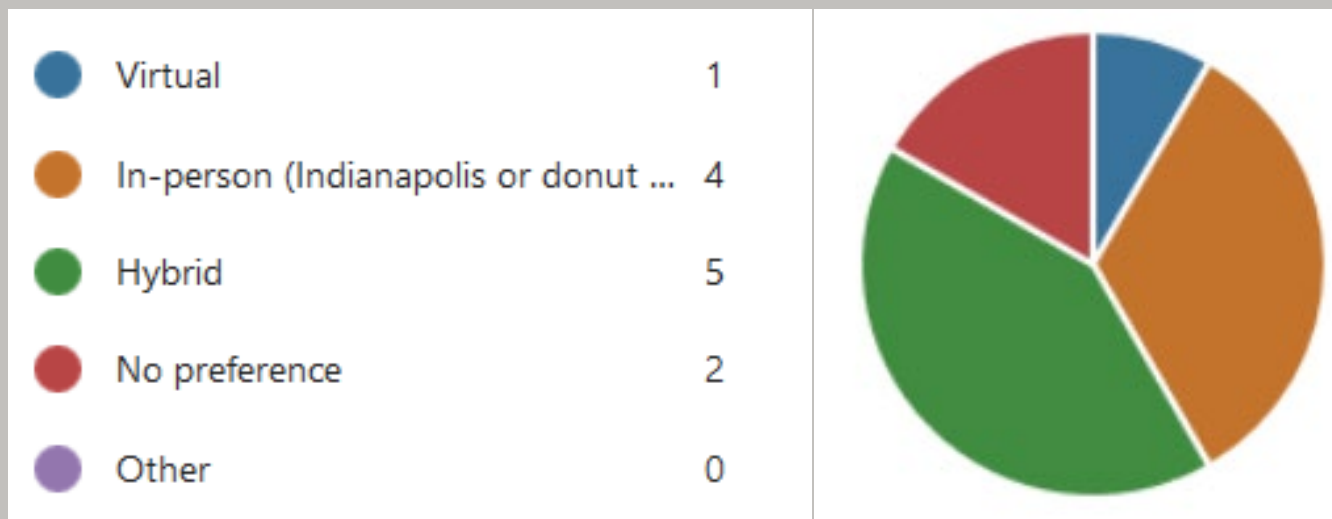
When? and How? to meet



How often should we meet?

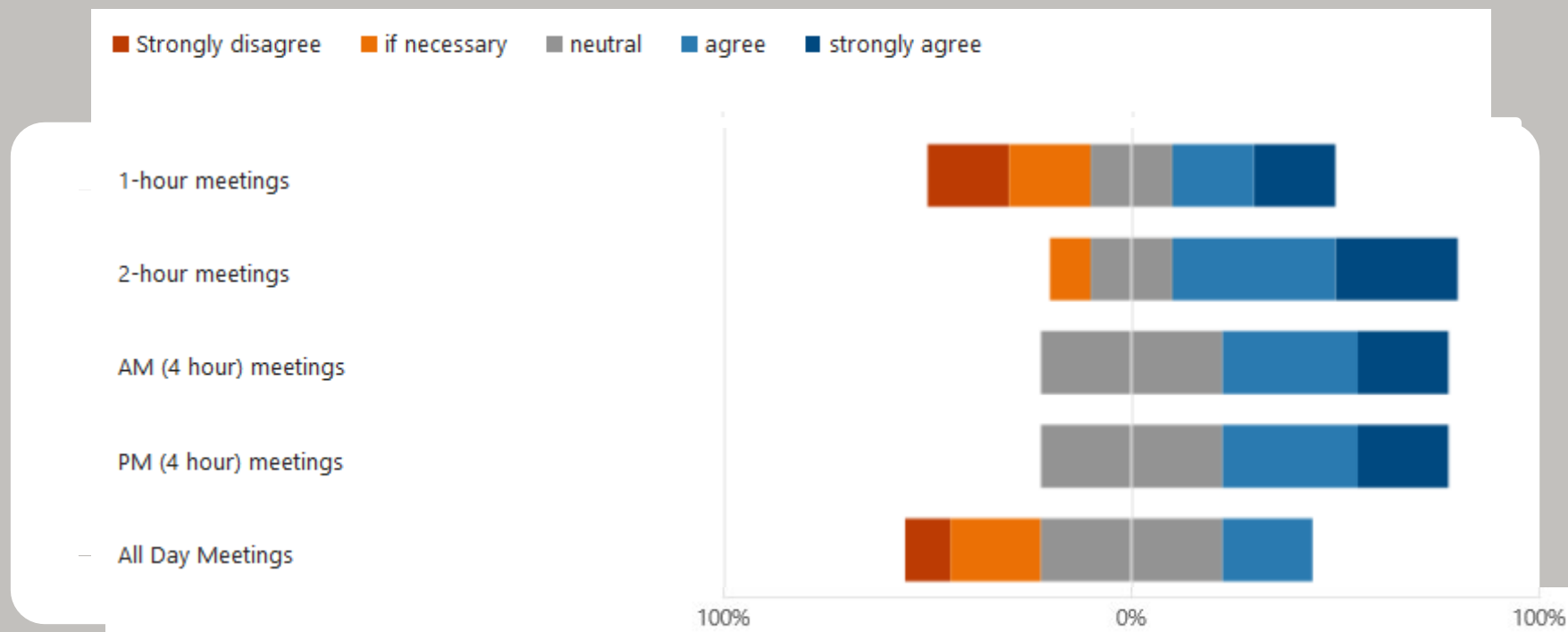


How should we meet?





When are we meeting in 2024?



Tuesday /Thursday; First, Second, or Forth Week; For 2-4 hours



So, lets pick some days.

- *Tue/Thur; 1st, 2nd, 4th Week; 2-4 hrs*
- 2/16/23 (1st meeting)
- -May, August, November (Quarterly)
- -April, June, Aug, Oct, Dec (Bimonthly)



2024

January

Su	Mo	Tu	We	Th	Fr	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
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February

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March

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April

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May

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June

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July

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August

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September

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October

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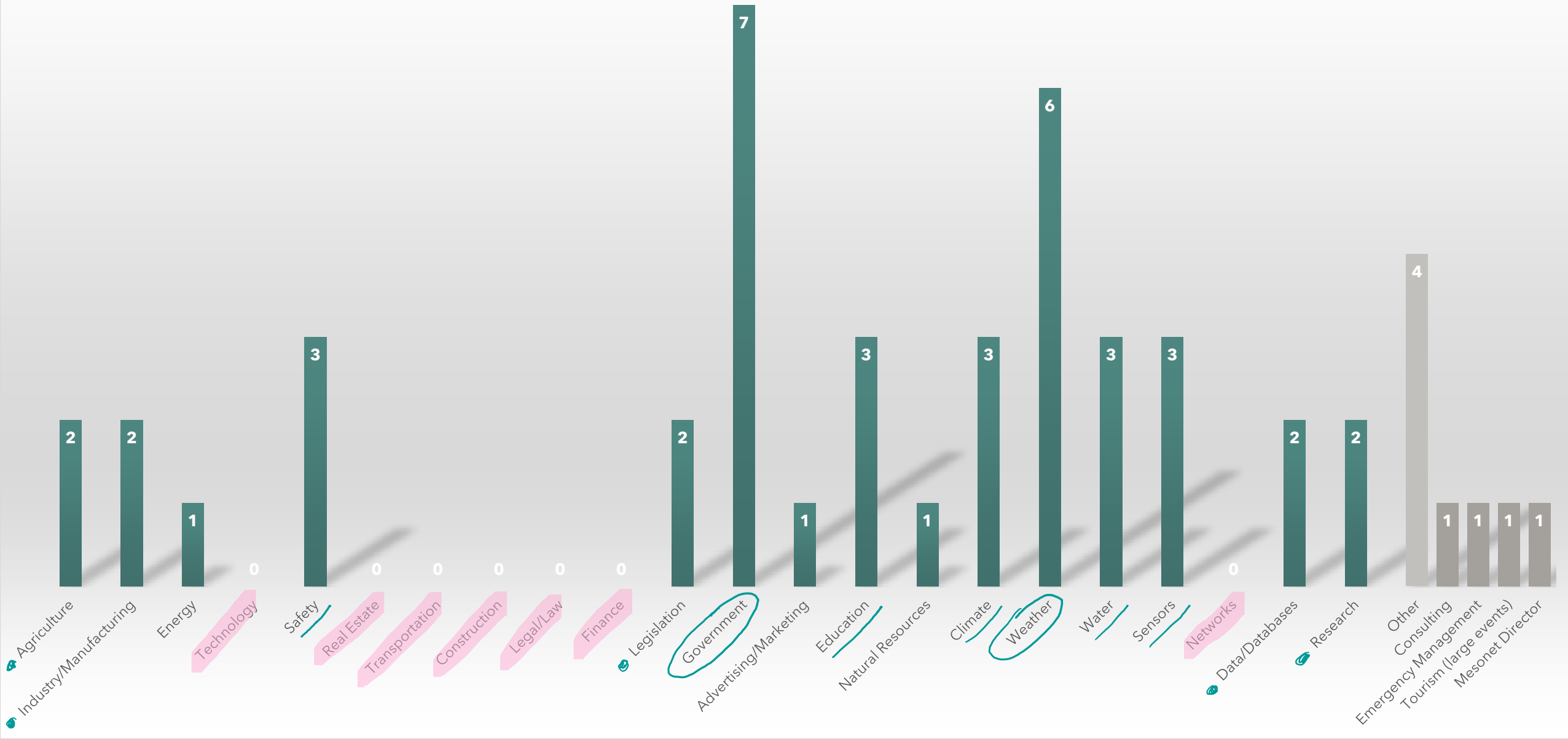
November

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December

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Sector Knowledge



Technology
Real Estate
Transportation
Construction
Legal/Law
Finance
Network design

WHO is missing?

- Legislator representation (House & Senate; local or fed)
- Insurance Companies
- Indiana Farm Bureau _____
- Ag (Farmer, Wine industry, maple syrup, etc.)
- County Commissioners
- INDOT (RWIS site coordination)
- Already have a good cross-section
- *Large Event Venues (Host sites?)- stakeholder, not board member*

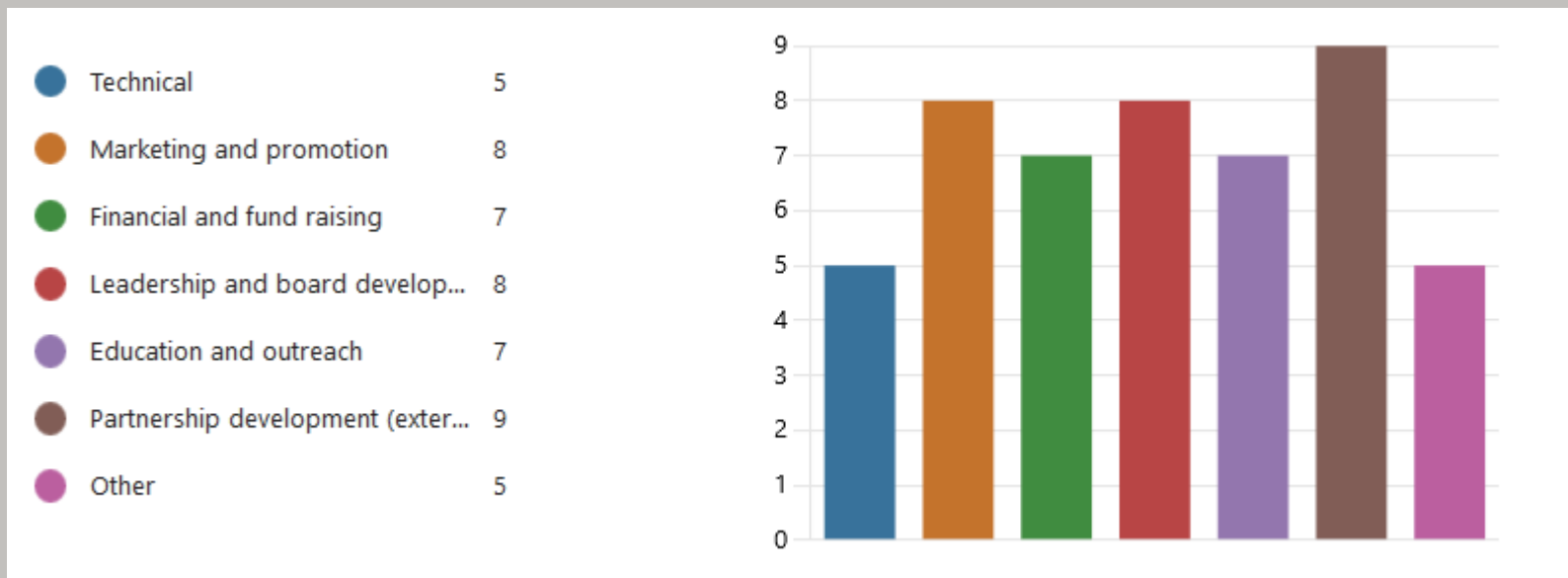


Board Development & Leadership



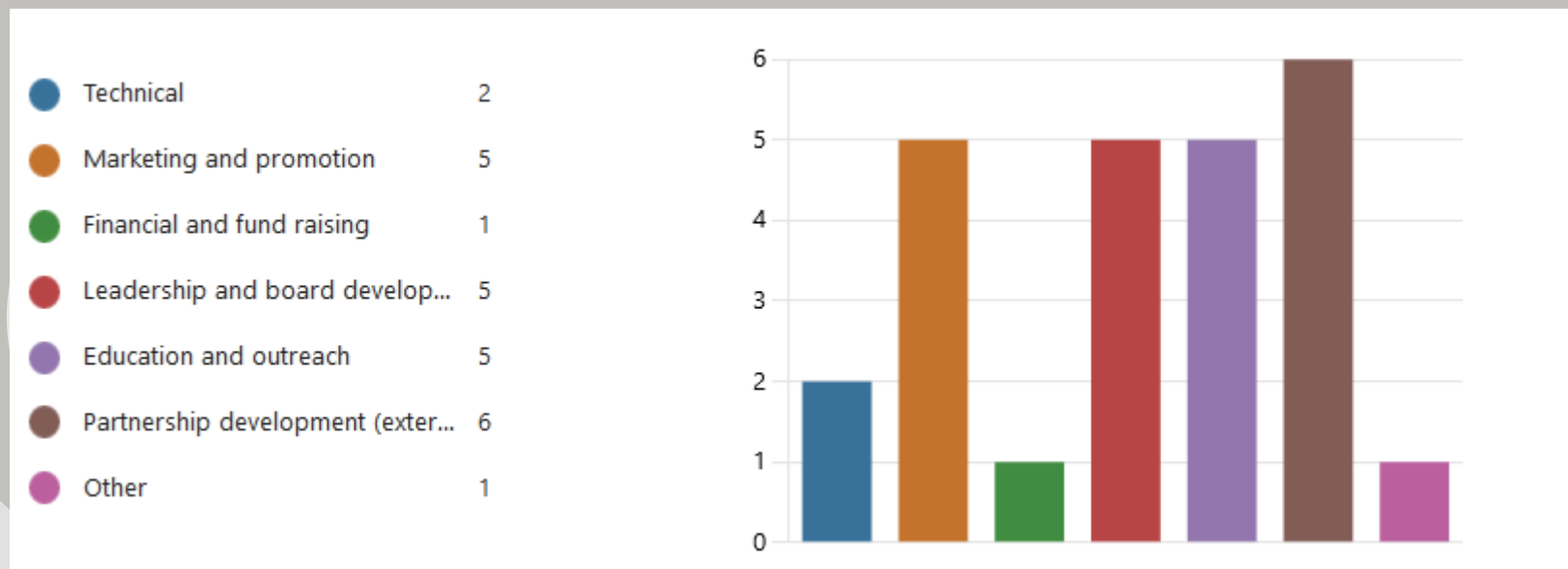
Roles, Actions, & Involvement





What area of involvement do you see the advisory board having with respect to the Indiana Mesonet Program?

What are the other?



What area of involvement do you see ***yourself*** having with respect to the Indiana Mesonet Advisory Board?

Where will we get the other involvement from?



What role do you see the advisory board having to best serve the Indiana Mesonet Program?

- Connect the **data** to the users.
- **Fundraising** and helping get increased support.
- **Consult** with IM personnel and stakeholders on issues germane to the Indiana Mesonet, such as instrument replacement, funding opportunities, site selection, etc.
- Member of the Board or a Subcommittee
- The board's most important roles include **education, promotion**, and **funding**.
- Helping it with **contacts** it doesn't currently have.
- Offering course correction guidance.
- **Oversight** of the two programs.
- **Facilitator, co-leader, help** with project





Agency Representation

None Homeland Security Alliance Cooperative NWS
Indiana Inc WKU Kentucky INTERA Co
MISO Purdue University Kentucky Mesonet
National Department Weather Service

- Connecting to water supply planning
- Represent the agriculture industry.
- Utilizing the data in education and research
- advising on technical aspects of the mesonet (like sensor quality)
- coordinating educational experiences for students (e.g., internships, K-12 outreach)
- We will certainly assist with education, promotion, bringing in stakeholders, and advising the board as we can.
- External partnerships.
- Facilitator, co-leader, help with project
- Helping to market and educate the mesonet, **its purpose** and the **value** in its **data** to the **public** and **organizations** that may have an interest.



Marketing



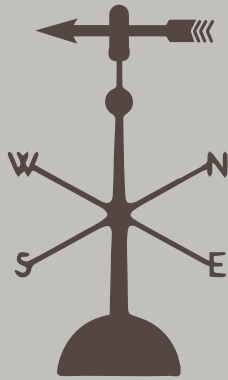


Value of Mesonet

- The availability of quality data.
- Better information to use in prediction (but we need to extend to drought monitoring.)
- Ability to validate other less accurate weather stations in close location to highly accurate stations.
- Will lead to more trusted forecasting among an always skeptical public.
- Will lead to Indiana catching up to other states and thus being a respected contributor in regional research and forecasting.
- state's awareness and proactiveness to support all it can to keep people, businesses, and livelihoods in the state aware, safe, protected, understood, etc
- Public safety, because it is relevant to everyone.
- Making Indiana better known for its weather and climate focus in education.
- Ag community
- Severe weather safety and warning improvement.
- enhance the state's commerce and economy
- multi-agency and multi-sector application and benefit

Value will be seen across the board for the mesonet. I truly don't believe that one sector will benefit more than another, since the data will be used in vastly different ways. The value is to the state as a whole and all stakeholders and supporting entities within the state and beyond.

Branding



- *Indiana's Mesonet: the data needed to see into our future*
- *The Indiana Mesonet: Weather and Water Data from Where You Live*
- *Indiana Mesonet: the statewide weather station network*
- Probably keep the name but add a tagline; such as:
 - *"Weather data for YOU!"*
 - *"Hyper-local, accurate weather data for all"*
- Not sure it should be a '**mesonet**'. **Weather station network** is much easier for the normal person to understand.
- A catchy written or graphical slogan, something that would be remembered and resonate with people, is important! Image and exposure!

Applied Products



- Visibility -TV weather broadcasts
- Data sharing with NWS
- Agricultural information products.
- Local and state emergency management products
- Energy consumption/costs products.
- Drought and flood prediction
- A phone app, look up real-time weather data
- Developing curriculum
 - lessons for 8th grade science teachers
 - K-12 institutions
 - 4-H or the State Fair
 - ag
- State Fairgrounds (good site). They have school programs on ag, and they use weather data during the fair and other events from a public safety standpoint
- Special apps for those running large outdoor events.
- Inversion monitoring products, soil moisture/temperature products/ local weather observations
- Daily summary products of highest/lowest temperatures, winds, etc.
- A public facing Situation Awareness dashboard used by agencies and companies on local networks that displays state map with observations and automatically updates.



What talking points would be most helpful in presentation materials for the board for the promotion the Indiana Mesonet?

- Quantifying the current impact and what it would mean for Hoosiers if expanded. With legislators, the board would need to promote this as an investment to our communities for public safety, etc.
- Things presented at initial awareness meeting, items already on flyers, and some key takeaways from first IMAB meeting. I don't think this would be a major effort. It's just consolidating info well to develop a powerful needs, benefits, and messaging statement/presentation. Using specific examples of benefits to weather forecasting, energy, transportation, ag, etc. are needed to substantiate and illustrate the philosophical need.
- Why it is needed, why is it important for Hoosiers, economic impacts and benefits, cost savings for farmers/Ag. How many dollars will be saved for dollars spent? Economic study or report with taxpayer savings will be needed to sell to legislature. Also, severe weather benefits.



What talking points would be most helpful in presentation materials for the board for the promotion the Indiana Mesonet?

- Measurements that Save Lives and Protect Water
- Very simple one-pager on features, advantages, and benefits of the network.
- How does this benefit the everyday Hoosier? True, local weather data. Weather data that is being used to save lives and property. Are there case studies that show how these networks have improved forecast?
- A single voice and identity assumed prior to promoting and attempting to find funding sources, etc. If the investors or potential supporters of the mesonet have questions that we can't answer, we likely won't get their support.



What talking points would be most helpful in presentation materials for the board for the promotion the Indiana Mesonet?

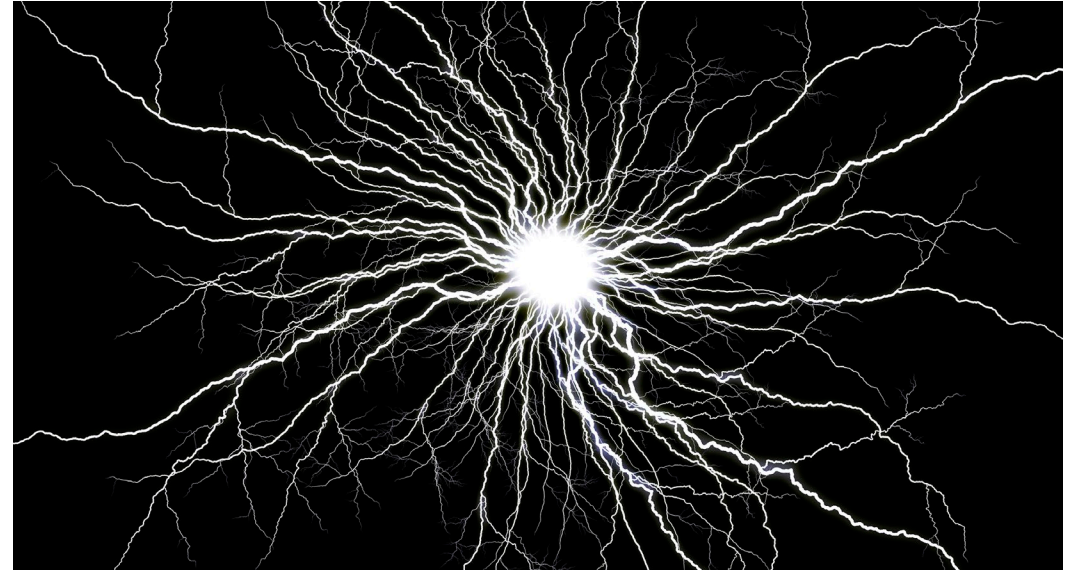
- More granular and more accurate weather/water data.
- More granular via more stations.
- More accurate via repair/calibration regimes.
- All that leads to better:
 - -forecasting/public warnings
 - -decision making
 - -climate research



What talking points would be most helpful in presentation materials for the board for the promotion the Indiana Mesonet?

1. As Indiana's economy and communities continue to develop, risk exposure to severe and extreme weather increases.
2. The availability of accurate and reliable weather observations in a timely manner from in local communities can help to save life and property.
3. Everyone in Indiana is impacted by weather, so the Indiana Mesonet is a program that benefits everyone, not just selected groups. Likewise, much of the economy, including agriculture, energy, and transportation, are directly impacted by weather. Thus, having better weather data helps Indiana be more competitive in the national and global economy.
4. Given advancements in technology, including communications, scientific instrumentation, and computing, investments in weather monitoring are increasingly being made in states throughout the country.

Miscellaneous



Barriers



- QC and data access
- Need to combine the two current groups into one under one leadership.
- Sustainable funding is something that troubles me a lot and that I don't have easy answers to.
- Funding obtainment and division
- Creating a single mesonet identity
- The time needed to get funding into legislation
- Potential funders currently satisfied with seemingly granular/accurate weather data via internet.
- Funding, continued passion and interest from IMAB members and others for a long road and obstacles ahead to achieve the mission and vision! Dedicated group to be able to site, install, and maintain stations in each county (not easy).
- Funding, merging the two networks without interference from higher university administrators who want each network to remain separate and their own.

Other Considerations

Modernizing the calibration management regime.

