

School of Natural Resources

# *From Internal to External*

*2017 – 2018  
Engagement*



University of Nebraska–Lincoln

# Working Vision

- The tripartite mission of the land grant university is paramount
- This is the School of Natural Resources – we connect people and the environment
- Our programs will continue to increase in importance in society



*As always – Integration and Identity*

## Review Last Year Goals - The Short Term 2016-2017

- Begin implementing APR
  - Address gender issues in SNR
    - Already in place with more proactive faculty hiring
    - 6 women among new faculty
    - Support of AWIS chapter
    - Sponsor and host AWIS mentoring workshop next week
  - SNR Governance
    - Upgrade responsibilities of FAC
    - Create teaching committee with much more responsibility
    - Develop plan to create external advisory board



## Review Goals – 2016-2017

- Teaching Review
  - Continue and complete teaching review
  - Begin to implement recommendations
  - Streamline degree programs
- Geography (now changed with establishment of Geography program to be housed in CAS)
  - Rebrand SNR to be Spatial and Remote Sensing rather than geography



# Hiring Status and Programs

- Community and Regional Forestry
  - Eric North – 1 April 2017
  - FSA
- Soil Scientist – Pedologist
  - Judy Turk – 1 July 2017
- Wildlife Ecologist – Mammalogy
  - John Benson – 1 January 2017



# Hiring Status and Programs

- Limnology
  - Search completed
  - Jessica Corman starting 1 December
- HPRCC Director
  - Position frozen during hiring pause
  - Mike Hayes chair of search committee and now getting ready to interview
- Spatial Scientist Position
  - Failed search – could not reach deal with candidate
  - Brian Wardlow chair of search committee and now getting ready to interview



# Hiring Status and Programs

- **Private land biologist**
  - Candidate identified
  - Frozen by hiring pause
  - Trying to get unfrozen
  - Larkin Powell SC chair
- **Great Plains Forestry**
  - Frozen by hiring pause
  - Trying to get unfrozen
  - Dave Wedin SC chair



## Core Position Request - IANR

- 31 August deadline
- List from each unit for core TT positions
- Within SNR requests from the Mission Areas.
- Priorities to be put forward from each MA.





# Challenges

- External
  - Universities are changing
  - Public universities in particular
  - Finances
- Internal
  - The new normal – much more collaborative and less silo (although does seem to vary)
  - Relevance in IANR and UNL
  - Structural changes to UNL



# The Short Term 2017-2018

- Implementing APR
  - Address gender issues in SNR
    - Continue to support AWIS
    - Continue to support newly hired faculty
  - SNR Governance
    - Upgrade responsibilities of FAC
    - Upgrade Graduate Committee Chair position
    - Develop plan to create external advisory board
  - Teaching Review
    - Continue teaching review – mainly surrounding spatial science, climate sciences, and environmental science
    - Begin to implement recommendations
    - Streamline degree programs



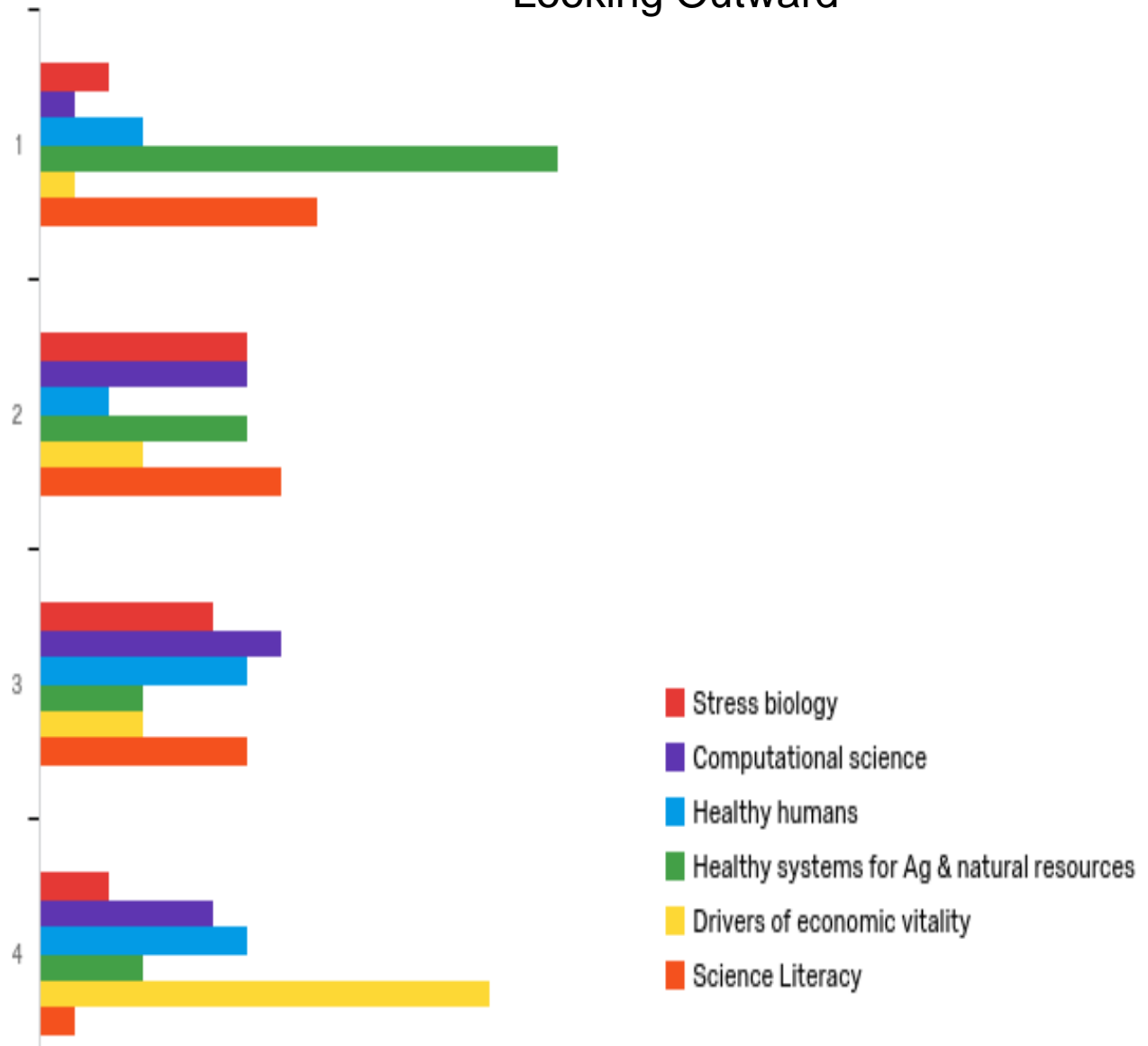
# The Short Term 2017-2018

- Security
  - Addition of security cameras
  - Addressing low level but chronic bicycle theft issue
- Renovation of Hardin lobby
  - Improvements to shop and student services areas
  - More efficient use of space and personnel
  - \$\$\$\$
- Green Roof Proposal
  - Put forward by Shawna
  - Just getting traction now
- Collaboration Center
  - 1<sup>st</sup> floor or Basement lobby area put forward by Art Zygielbaum
  - Maybe something similar to the one at Food Science



# The Short Term 2017-2018

Looking Outward



# Healthy Ag Systems

- Soil Health
- Spatial Science
- Nebraska One Health
- Resilience and Environmental Risk Analysis
- Ecosystem Services and Non-Market Economics
- Animal Systems



# Economic Vitality

- **New and emerging opportunities:**
- Regional Centers for Rural Economies
- Children families
- Innovative products
  - Specialized ag products –
  - Understanding technology and how it's shifting what we are doing including how we are selling our wares, the delivery of information, growth or decline of communities, etc.
  - Nebraska Entrepreneurial Developers –
  - Continuum of entrepreneurship from youth level (4H),
  - Utilization of urban wood in a sustainable way (wood that needs to be removed from urban environments due to diseases, etc.) to generate value added products.



# Healthy Humans

- **Gaps in expertise, facilities or resources**
- Researchers with skills and knowledge in population biology, epidemiology, toxicology, organoids, mucous, animal cells, synthetic biology (to complement BIOC and CHME), genetics
- Incentives to develop leadership of research faculty
- Confocal microscopes scattered across campuses and animal imaging capabilities
- Basic infrastructure, operation and maintenance support (rather than additional new buildings and new faculty hires)
- Connectivity of people and awareness of distributed expertise and equipment
- Lack of graduate students at intersections of disciplines to support the new hires and clusters
- Limited effort on "selling" of research capabilities to industry to fund graduate programs (e.g., complex biosystems)
- Processing influence on nutrient utilization and stability of nutrients/dietary supplements
- Sensors for personalized foods
- Mechanisms to support and evaluate collaborative research and teamwork
- Infrastructure to support robust, timely and functional web design for collaborations/teams
- Strong connections with UNMC and UNO College of Public Health



# Stress Biology

- **a/ Cross Cutting**
- Phenotyping tools
- Resistance Management and Utilization
- Stress Management
- Multi-Stress Response and Defense
- Microbiome influence on stress (mediation via biocontrol)
- Gene editing (by microbes)
- Biotic and Abiotic Stress
- Animal, including Pollinator/Human/Plant Health
- Open Science, Data Pipelines/Data Flow
- **b/ Scale**
- Molecular to cellular to ecosystems to global





# Science Literacy

- As a follow up to this Spring's Science Summit, the Science Literacy team has updated their mission and revised their framework (see attached) which includes goals, objectives, outcomes, and strategies across each of four domains:
  - 1) PK-12 Education, 2) Higher Education, 3) Partner Education/Collaboration, and Public Education.
  - Additionally, the team identified Cross-Cutting Themes These themes include:
    - Food, Fuel, Water, Landscapes and People Nexus
    - Science Informed Decision Making.
    - Citizen Science.
    - Systems-Thinking
    - Integration of Science Literacy with the other IANR Communities



# Computational Sciences

- Meeting I: Synopsis
- A) Several people were of the opinion that before we hired more people in the general 'omics areas, we should have some sort of forum in which cross
- B) There was a belief that we should 'aim higher' at all levels (UG, grad, post-doc, faculty). Some of this could be done by connecting researchers through data sharing and teaching.
- C) There was a great deal of interest in further education in quantitative methods such as shortcourses, visiting speakers, trainers, and grad/UG programs
- Particular stats areas included temporal/spatial stats and Bayes.



# Long Term 2016-2020

- Other projects
  - Move SNR Administration to first floor of HH
  - Create development strategy and external advisory board



# Have a Great Year!!!!!!

14 September

Alexander von Humboldt  
Birthday

