WORKING GROUP GUIDANCE
WG Guidance

- Chair is responsible for ensuring all voices are heard and all topics considered
- Recorder will capture key topics and present at discussion session with help from others
- Members carefully consider all questions
- All add additional areas as required to ensure area is fully covered
- Minority reports welcome
Given the operational needs presented:

- What is common?
- Which ones are appropriate for ensembles to address?
- Where do ensembles have to be in 10 years to meet these needs?
- What infrastructure is required?
**Session 3 Ops Needs WGs**

### Group 1
- Chair: John Zapotocny
- Rap: John Ward
- Greg Byrd
- Laurie Carson
- Jim Hansen
- Ed Mozley
- Luca Monache
- Zoltan Toth
- Laurie Wilson
- Ming Xue

### Group 2
- Chair: Steve Payne
- Rap: Jack Floyd
- Cecelia Deluca
- Ron Ferek
- Rebecca Morss
- Steve Mullen
- Melinda Peng
- Roger Pierce
- James Rigney
- Yuejian Zhu

### Group 3
- Chair: Roger Pierce
- Rap: Mike Clancy
- Barb Brown
- Tony Eckel
- Tara Jensen
- Susan Joslyn
- Tom Hamill
- Kate Musgrave
- Carolyn Reynolds
Session 4: Needs driven research agenda

Given the common needs for ensembles:

• What are the critical research areas?
• What are the gaps?
• Can we prioritize?
• What specific additional resources are required?
Session 4 R&D Agenda WGs

Group 1
- Chair: Jim Hansen
- Rap: Steve Mullen
- Ron Ferek
- Tara Jensen
- Rebecca Morss
- Ed Mozley
- James Rigney
- Laurie Wilson
- John Zapotocny

Group 2
- Chair: Barb Brown
- Rap: Melinda Peng
- Laurie Carson
- Mike Clancy
- Cecelia Deluca
- Josh Hacker
- Susan Joslyn
- Kate Musgrave
- Roger Pierce
- Ming Xue

Group 3
- Chair: Tony Eckel
- Rap: Yuejian Zhu
- Greg Byrd
- Jack Floyd
- Tom Hamill
- Luca Monache
- Steve Payne
- Carolyn Reynolds
- John Ward
- Zoltan Toth
Voting

- All attendees receive 10 votes
- Votes may be awarded to any combination of one or more issues
- Voters will have 15 minutes
## Table 1. Objectives supporting each Strategic Goal

<table>
<thead>
<tr>
<th>Strategic Goal 1</th>
<th>Strategic Goal 2</th>
<th>Strategic Goal 3</th>
<th>Strategic Goal 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understand forecast uncertainty</td>
<td>Communicate forecast uncertainty information effectively, and collaborate with users to assist them...</td>
<td>Generate Forecast Uncertainty Data, Products, Services, and Information</td>
<td>Enable forecast uncertainty research, development, operations, and communications with supporting infrastructure</td>
</tr>
</tbody>
</table>

### Strategic Goal 1 Objectives
- Obj. 1.1 Identify societal needs and best methods for communicating forecast uncertainty
- Obj. 1.2 Understand and quantify predictability
- Obj. 1.3 Develop the theoretical basis for and optimal design of uncertainty prediction systems

### Strategic Goal 2 Objectives
- Obj. 2.1 Reach Out, Inform, Educate, and Learn from Users
- Obj. 2.2 Prepare the next generation for using uncertainty forecasts through enhanced K-12 education
- Obj. 2.3 Revise undergraduate and graduate education to include uncertainty training

### Strategic Goal 3 Objectives
- Obj. 3.1 Improve the initialization of ensemble prediction systems
- Obj. 3.2 Improve forecasts from operational ensemble prediction systems
- Obj. 3.3 Develop probabilistic nowcasting systems
- Obj. 3.4 Improve statistical post-processing techniques.

### Strategic Goal 4 Objectives
- Obj 4.1 Acquire necessary high performance computing.
- Obj 4.2 Establish a comprehensive archive.
- Obj 4.3 Ensure easy data access.
- Obj 4.4 Establish forecast uncertainty test bed(s)
- Obj 4.5 Work with users to define their infrastructure needs
<table>
<thead>
<tr>
<th>Strategic Goal 1</th>
<th>Strategic Goal 2</th>
<th>Strategic Goal 3</th>
<th>Strategic Goal 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understand forecast uncertainty</td>
<td>Communicate forecast uncertainty information effectively, and collaborate with users to assist them...</td>
<td>Generate Forecast Uncertainty Data, Products, Services, and Information</td>
<td>Enable forecast uncertainty research, development, operations, and communications with supporting infrastructure</td>
</tr>
<tr>
<td>Obj. 2.4 Improve the presentation of government-supplied uncertainty forecast products and services</td>
<td>Obj. 3.5 Develop non-statistical post-processing techniques.</td>
<td>Obj. 3.6 Develop probabilistic forecast preparation and management systems</td>
<td></td>
</tr>
<tr>
<td>Obj. 2.5: Tailor data, products, services, and information for private-sector customers</td>
<td>Obj. 3.7 Train forecasters</td>
<td>Obj. 3.8 Develop probabilistic verification systems</td>
<td></td>
</tr>
<tr>
<td>Obj. 2.6 Develop and provide decision support tools and services.</td>
<td>Obj. 3.9 Include digital probabilistic forecasts in the Weather Information Database</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
QUESTIONS