Potential Priority Topics for SAB Study

These are 13 topics selected for consideration

#	Abbrv	Potential Topic for SAB Study
1	CRT	Tools to Enhance Resilience of Coastal Communities
2	PS	S&T Partnership Strategies
3	CO	Climate Observations
4	SW	Space Weather
5	NO	Noise Observations in Marine Sanctuaries
6	5G	5G – Mitigate Interference with Passive Microwave Sensing
7	FF	Focus for the Future: Adapting to S&T Disruptive Innovations
8	R2X	Maximizing R2X: Continuous Improvement, Risk Management, Acceptance of Failure, Lessons Learned and Innovation Enhancement
9	RME	Rapidly Changing Marine Environment
10	CS	Understanding Complex Systems through Transdisciplinary Research at NOAA
11	RD	R&D Risk Management of Publishing/Peer Review
12	SBS	Integrating Social and Behavioral Science into NOAA for Improved Mission Focus
13	ESP	Earth System Prediction and Predictability

SAB Criteria to Select Topics for Study

These are criteria selected for scoring

Evaluate potential topics on four independent dimensions

1. Value – **Does topic add value?**	**2. Impact** – **Does topic have broad impact?**
a. Value to society (economic, social, security, safety, conservation/ management of resources) b. Contribution to global health & earth system predictability c. Value to country (nation's economic/social/environmental needs) d. Value to NOAA (impact to NOAA policy/budget) e. R2X (application of science to ops and information services) f. Innovation	a. Strategic b. Fit into larger federal effort (magnified impact) c. Impact across multiple Line Offices and/or regional offices d. Multiple Programs e. Management of resources f. Communications
3. Transformational – **Does topic have potential to be transformational?**	**4. Fit to NOAA/SAB** – **Is NOAA the best agency/ SAB the best group to undertake the topic?**
a. Technical b. Strategy c. Organizational d. Management of resources e. Communications	a. Alignment with NOAA mission b. Opportunity for NOAA to demonstrate leadership in target focus area c. Alignment with NOAA/SAB strengths & capabilities (say "no" to things better done by other agencies/entities) d. Potential partnerships with other sectors (private/academic/international) e. Alignment with NOAA R&D Principles

Potential Topics – Scoring Results

Scoring results:
Mean scores for each dimension

Values are mean of scoring by SAB members and WG Co-Chairs (14 people)

#	Abbrv	Potential Topic for SAB Study	Value	Impact	Transformational	Fit to NOAA-SAB
1	CRT	Tools to Enhance Resilience of Coastal Communities	**8.1**	**7.9**	**6.7**	**8.9**
2	PS	S&T Partnership Strategies	**7.1**	**6.5**	**6.1**	**6.9**
3	CO	Climate Observations	**8.8**	**8.5**	**7.3**	**9.4**
4	SW	Space Weather	**7.7**	**6.9**	**6.1**	**7.4**
5	NO	Noise Observations in Marine Sanctuaries	**6.1**	**6.0**	**5.7**	**7.8**
6	5G	5G - Mitigate interference with passive microwave sensing	**5.8**	**5.7**	**5.0**	**5.5**
7	FF	Focus for the Future: Adapting to S&T Disruptive Innnovations	**5.9**	**6.1**	**6.4**	**5.9**
8	R2X	Maximizing R2X: Continuous Improvement, Risk Management, Acceptance of Failure, Lessons Learned AND Innovation Enhancement	**7.1**	**7.0**	**7.4**	**6.9**
9	RME	Rapidly Changing Marine Environment	**8.8**	**8.4**	**7.5**	**9.1**
10	CS	Understanding Complex Systems through Transdisciplinary Research at NOAA	**6.8**	**6.6**	**6.0**	**7.3**
11	RD	R&D Risk Management of Publishing/Peer Review	**6.5**	**6.0**	**4.4**	**6.4**
12	SBS	Integrating Social and Behavioral Science into NOAA for Improved Mission Focus	**8.1**	**7.6**	**7.1**	**8.4**
13	ESP	Earth System Prediction and Predictability	**8.4**	**7.9**	**7.4**	**8.4**

Value

8.0 – 8.9

7.0 – 7.9

6.0 – 6.9

5.0 – 5.9

Fit to NOAA

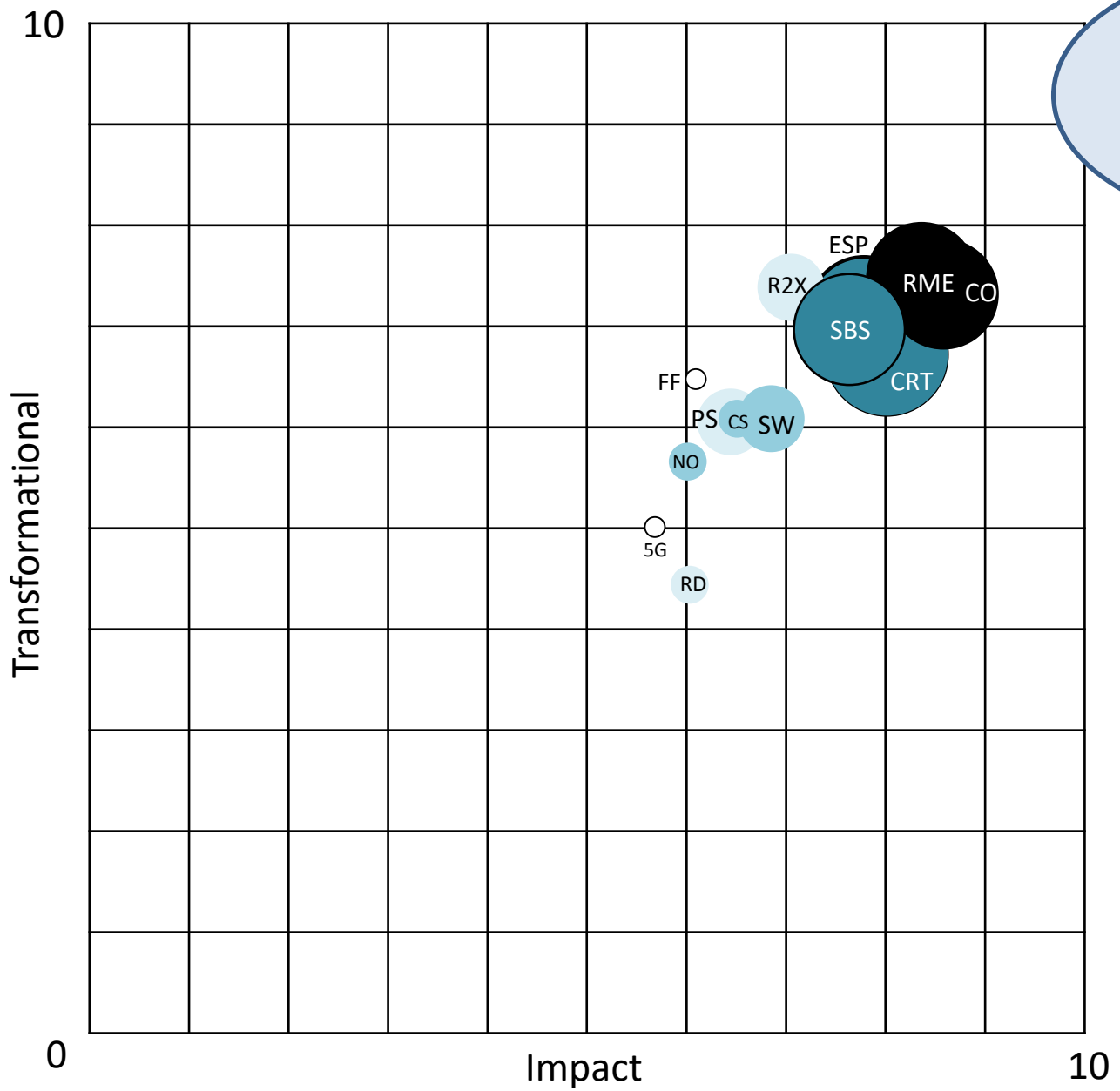
9.0 – 9.9

8.0 – 8.9

7.0 – 7.9

6.0 – 6.9

5.0 – 5.9



Note high scores for 5 topics – see next slide for more differentiation

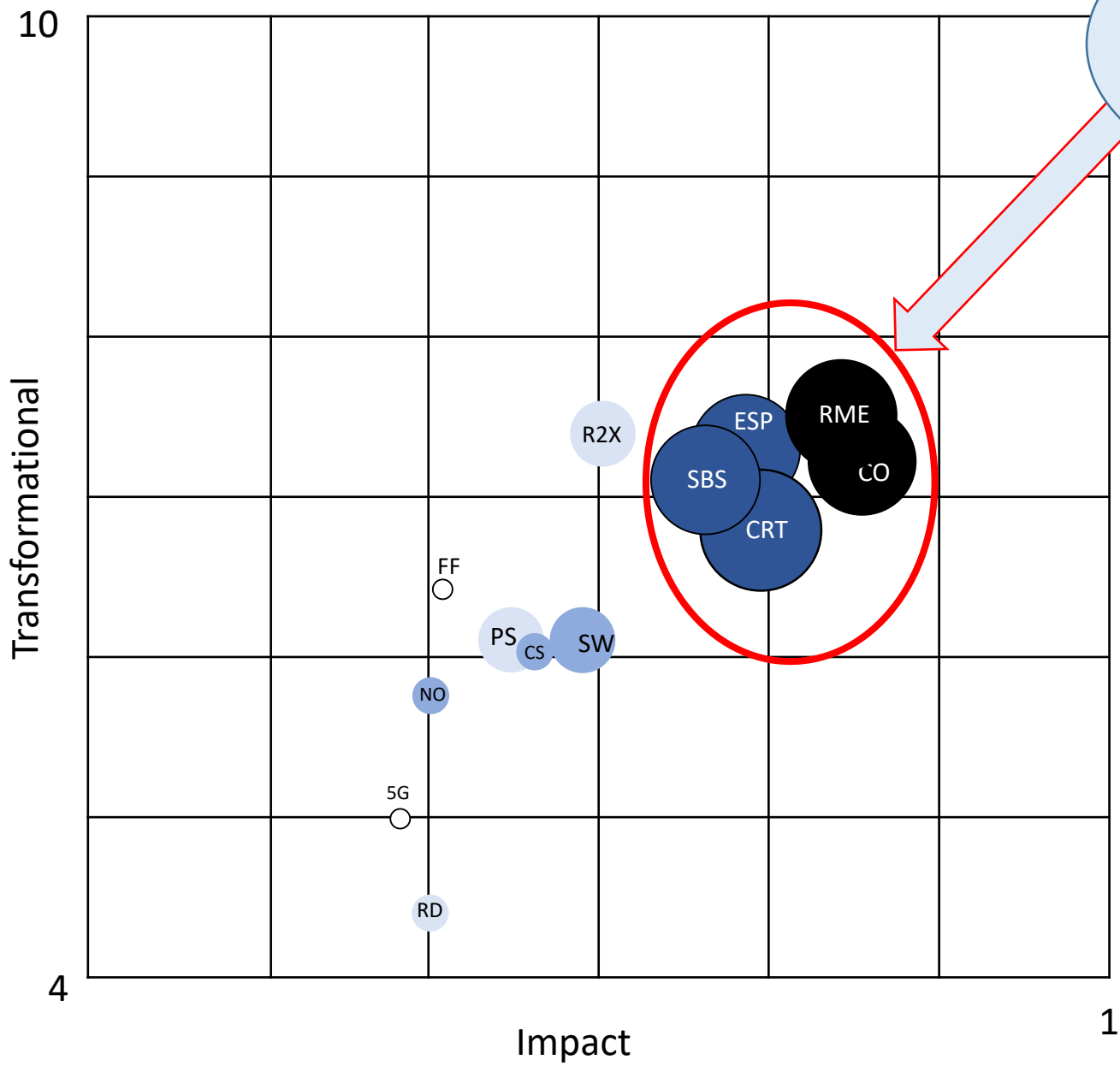
	Topics
CRT	Coastal Resilience Tools
PS	S&T Partnership Strategies
CO	Climate Observations
SW	Space Weather
NO	Noise Observations – marine sanctuaries
5G	5G – mitigate interference
FF	Focus for the Future
R2X	Maximizing R2X: CI, Risk Mgt, Innovation Enhancement
RME	Rapidly Changing Marine Environment
CS	Complex Systems – interdisciplinary
RD	R&D – risk mgt of publish/peer review
SBS	Social/Behavioral Science
ESP	Earth System Prediction and Predictability

Value

- 8.0 – 8.9
- 7.0 – 7.9
- 6.0 – 6.9
- 5.0 – 5.9

Fit to NOAA

- 9.0 – 9.9
- 8.0 – 8.9
- 7.0 – 7.9
- 6.0 – 6.9
- 5.0 – 5.9



5 “apparent winners” as scored by SAB and WG Chairs – basis for discussion on 9/22; particularly how fit with NOAA priorities

The 5 high-scoring topics are highlighted in yellow in table

	Topics
CRT	Coastal Resilience Tools
PS	S&T Partnership Strategies
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NOAA Leadership Priority Topics for the SAB for 2020-21

1. **Earth System Prediction & Predictability**
2. **Application of Emerging S&T and Public Private Partnerships to Monitor and Predict Changes in the United States' Living Marine Resources**
3. **Integrating Social and Behavioral Sciences into Every NOAA Mission Area**
4. **Scientific Studies to Investigate China's Impacts on the Environment**

SAB Liaisons for 6 S&T Focus Area Implementation Teams

S&T Focus Area	SAB Liaison
AI	Molly Jahn, DAARWG Eugenia Kalnay, SAB Bob Grossman, SAB
Cloud Computing	Chelle Gentemann, DAARWG Molly Jahn, DAARWG
Data	Chelle Gentemann, DAARWG Molly Jahn, DAARWG Chris Lenhardt, SAB
'Omics	Mike Castellini, ESMWG Rob Johnston, ESMWG
UxS	OEAB Bob Winokur, SAB Ruth Perry, SAB
Citizen Science	Martin Storksdieck, SAB ESMWG

BACKUP SLIDES

- Numbers in table are means
- Colors indicate SD

Scoring Results – Deeper Dive
Standard Deviations (variance in scoring)

- Good alignment on Rapidly Changing Marine Environment (SD<1.0)
- High SD for scoring on several topics

Reasons for large SD? Difference in opinion or difference in understanding?

		Potential Topic for SAB Study	Value	Impact	Transformational	Fit to NOAA-SAB
	CRT	Tools to Enhance Resilience of Coastal Communities	8.1	7.9	6.7	8.9
2	PS	S&T Partnership Strategies	7.1	6.5	6.1	6.9
3	CO	Climate Observations	8.8	8.5	7.3	9.4
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11	RD	R&D Risk Management of Publishing/Peer Review	6.5	6.0	4.4	6.4
12	SBS	Integrating Social and Behavioral Science into NOAA for Improved Mission Focus	8.1	7.6	7.1	8.4
13	ESP	Earth System Prediction and Predictability	8.4	7.9	7.4	8.4

Five topics w/ large SD highlighted on next slide

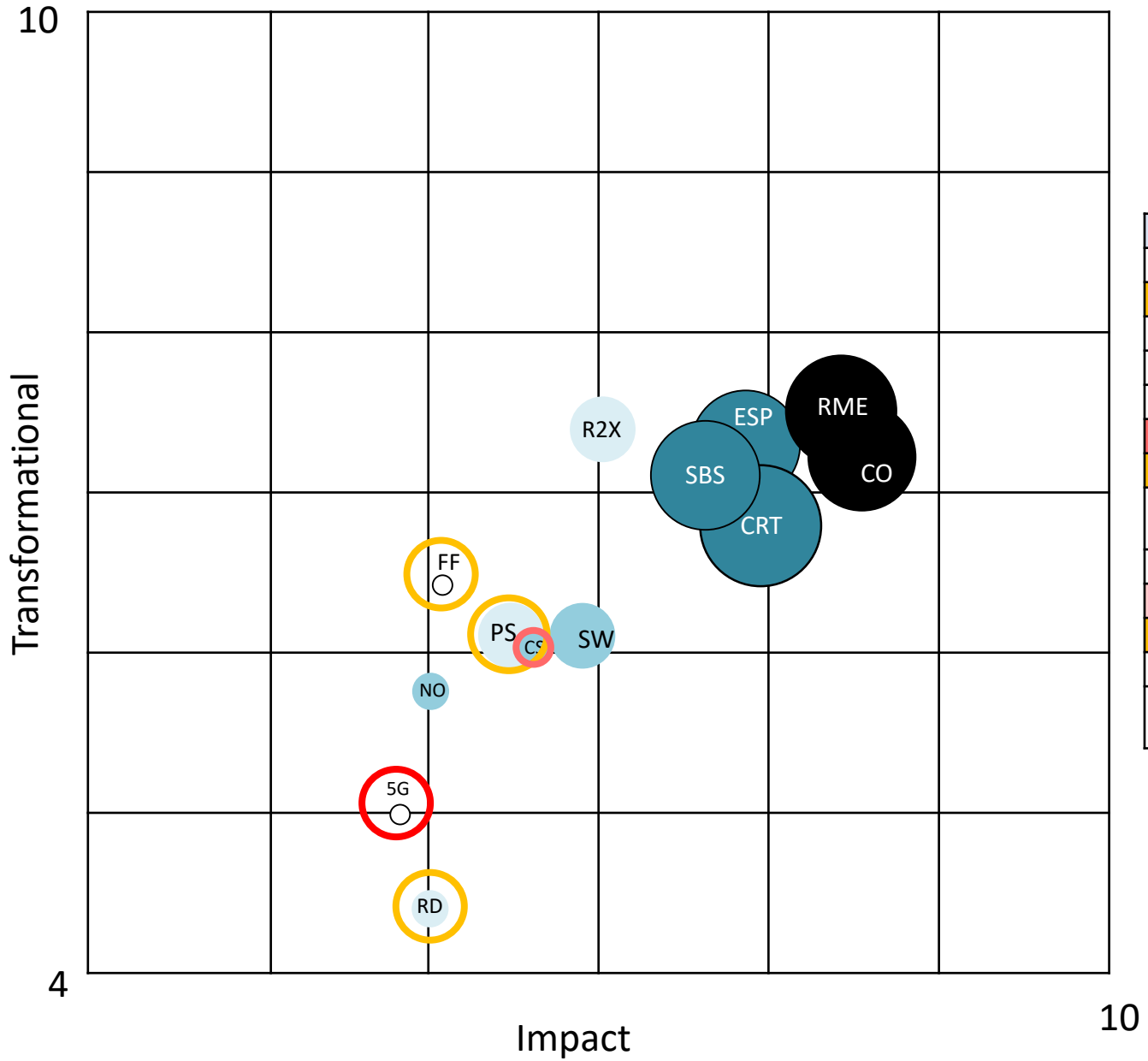
KEY	
	SD>= 2.5
	SD>= 2.0
	SD<= 1.0
	1.0<SD<2.0

Value

- 8.0 – 8.9
- 7.0 – 7.9
- 6.0 – 6.9
- 5.0 – 5.9

Fit to NOAA

- 9.0 – 9.9
- 8.0 – 8.9
- 7.0 – 7.9
- 6.0 – 6.9
- 5.0 – 5.9



Topics with lower scores have largest standard deviations

	Topics
CRT	Coastal Resilience
PS	S&T Partnership Strategies
CO	Climate Observations
SW	Space Weather
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