How to tell whether an observing proposal is good?

Must-Haves: If the answer is yes, it's a big plus. But if the answer is no, it's a big con.

1. **Science Goal:** is the scientific aim **concrete, clear and concise**? If someone (either in the field or not) who has never seen the proposal takes 20 minutes or less to read it, is the scientific aim still clear for them?
2. **Scientific Impact:**
    1. Is the science case relevant? Is it potentially impactful to its field?
    2. Is that impact quantified and/or estimated?
3. **Tools/Software:** Is there a mention and/or short description of the methodology and analysis tools to be used to process and interpret the data?
4. **Data Quality:**
    1. Is the expected data quality (e.g. signal-to-noise ratio, precision, RMS) quantified?
    2. Is the expected data quality appropriate to the scientific aim of the proposal? Are the proposed interpretations, analysis and goals scientifically feasible given the expected data quality?
5. **Figures:** do they support the science case effectively and clearly? Are they easily interpretable in a short amount of time? Are they not too busy? Are the legends a reasonable font size? Are they colorblind-friendly? Are they comprehensible if the pdf is printed out? Are they all addressed in the text?

Additional Pluses: If the answer is yes, it can be a big plus. But if the answer is no, it's not necessarily a con.

1. **Simulations/Models:**
    1. Is the expected data simulated and presented?
    2. Are there comparisons with simulations presented? Do they support the science case and its relevance?
2. **Science Goal:** is there a *single* well presented and supported scientific goal?

Don't-s: If the answer is yes, it's a big con.

1. **Science Goal:** if there are multiple science goals, do they seem disconnected, too ambitious, chaotic and/or confusing?
2. **Scientific Impact:**
    1. Does the potential impact of the observations feel exaggerated or overly ambitious?
    2. If a generalization to broader samples is part of the potential impact, is there an explanation of how the data from the proposal will be generalized consistently? Is this expected analysis quantified?