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This is also reflected in the post-survey<sup>14</sup>, which was handed out to the participants after the game exercises and the group deliberation of the technologies. Although the majority (+70%) of the participants was excited or very excited across the technology families, participant ambivalence persisted.

The persistence of excitement and concern thus suggests the utility of delving more deeply into the values expressed by participants in the course of deliberation. In the subsequent sections, we look at three overarching values in particular – equity, reliability, and healthy people and planet – to discuss the nature of such conditionality and ambivalence tempering excitement with concern. The sections below presents a broad synthesis of results reported in detail in TechEthos Deliverable 3.1 (p. 109 – 110).

## 3.2 Prioritised value “equity”

As a social concern and priority, **equity** features prominently across all three TechEthos technology families. In the context of these new and emerging technologies, equity references questions of just distribution of benefits and burdens associated with innovation, as well as of process used for decision-making. Detailed concerns regarding equity feature differently in each of the technology families. For climate engineering (CE) technologies, equity covers concerns with the power imbalances in play in decision making about interventions with complex and uncontrollable regional and global consequences. Equity concerns in CE also manifests at local levels, in terms of the distribution of burdens (e.g., the local community poisoned in the event of a CO2 gas transit pipeline explosion; the region plagued with drought or flooding as a result of solar radiation management elsewhere) and benefits. For extended reality (XR) technology, equity concerns relate more closely to the dynamics of labour markets and democratic states, where companies and governments may use and design technologies for various forms of monitoring, behaviour modification or control. Questions of the design and accessibility XR, acknowledgment of issues with licenses and authorship, strong social safeguards and consequences, as well as a fair distribution of benefits are essential when pursuing XR equitably. Finally, in the context of neurotechnologies (NT), equity concerns touch on ways in which individuals may or may not have access to life-saving technologies, simply as a function of economic means. Beyond the medical domain, any permeation of NT in society will raise equity challenges, as well, regarding the affordances of people augmented, or not.

In the sections below, we briefly summarize in greater detail the various ways in which equity concerns were observed in the TechEthos technology families.

### Climate Engineering

Various TechEthos Scenarios of climate engineering feature concerns regarding equity. CE Scenario 1 features situations in which Inequality worsens as larger firms capitalize on political and financial resources global carbon market regimes (D3.1 p.37); climate mitigation exacerbates globally inequities making for a grossly ineffective regime; and the ravages of food shortages and political disruption

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<sup>14</sup> Note: since the questions in the pre- and the post-survey are not completely the same, the two surveys cannot be compared directly.





























