Technical interoperability standards enable products offered by different vendors to work together using common sets of parameters and protocols. Most such standards today are developed by groups of industry participants in collaborative settings organized by standards development organizations (SDOs). It has been well-documented that once standards are widely adopted, markets can become “locked-in” and switching to different technologies can be prohibitively costly. Because patent holders have the potential to block others from deploying technology covered by their patents, SDOs often require their participants to commit to license their patents that are essential to the implementation of the SDO’s standards on “fair, reasonable and non-discriminatory” (FRAND) terms.

Not surprisingly, there is significant disagreement among market participants, regulators, and commentators over the meaning of FRAND. These disagreements arise both in reference to the level of royalties that should be considered “reasonable”, and whether remedies such as injunctive relief are appropriate when FRAND commitments have been made. Such disagreements have led to significant litigation in the wireless telecommunications market and threaten to disrupt other markets as well.

In this paper, I survey the existing economics and legal literature regarding FRAND licensing commitments and assess the wide range of proposals that have been made to alleviate the uncertainty that surrounds FRAND licensing. Such proposals have included the formation of patent pools, greater oversight by antitrust enforcement agencies, judicial or legislative limitation of injunctive relief, “ex ante” disclosure of licensing terms, auction processes for royalty rates, negotiated royalty caps and binding arbitration of licensing terms. I assess these proposals in terms of efficiency/welfare, administrability and political economy, then offer a novel solution that seeks to optimize these variables and provide a sound basis for collaborative standardization activity in the future.