Explore means to enhance collaborator involvement in the NSTX-U program, by first identify issues that you have as on-site and/or off-site collaborators.

1. What issues have you had as an NSTX collaborator?
   * + Things working well
     + Being on-site has a huge advantage for on-site research
     + Collaboration has been transparent, straightforward, inclusive
     + How things are progressing makes sense
     + Perfectly fine; no issues
     + Generally happy as part of team Nothing negative to say about collaborations
     + NSTX/NSTX-U program generally working well, although NSTX-U structure has become more complicated; however, it may optimize run time
   * Do you feel you have been able to establish and carry out your own scope of research? Has PPPL been a help or a hindrance (or neutral)?
     + PPPL has been extremely helpful
   * Do you feel you were able to fully integrate your research effort into the NSTX (NSTX-U) program?
     + Able to carry out own research program
   * Have there been issues in communication with and within (and by) the NSTX group?
     + Communications concerning your own scope of research
     + Communications regarding NSTX research
       - Communications within group at working science level are good
   * Do you feel you have been able to participate effectively in helping develop and influence the overarching research goals of NSTX (and NSTX-U)?
     + YES for research milestones, science-level issues
     + NO for overarching programmatic goals and directions of program that might impact resources and opportunities (e.g., Scope of Upgrade and how to phase in capabilities, LLD, liquid metals, etc).
       - Major Upgrade components were decided high up, and group could only tweak them
       - Not actively involved in setting up overarching programmatic goals, and would have liked to have more representation in this
       - May disagree with Joule milestones/JRT, but how to give input?
     + Did have input on NSTX repair vs going ahead with Upgrade
       - Success of NSTX/PPPL management
     + In dark about how run time is allocated and how the direction (mission elements) of the program is set
   * Have there been opportunities for you to assume leadership roles within the project and program, and do you feel these are adequate or do they need to be enhanced?
     + Yes, adequate opportunity, but must be vigilant maintaining this
     + Recent “TSG University representative” concept obviously forced in some areas, especially for off-site reps. Not sure how it will play out.
     + Make the U rep a position that really works (ombudsman for all collaborators in that area)
   * Has your work brought you visibility and appreciation (reward) by your home institution as well as by the fusion community in general?
     + YES
       - NSTX program helped “Home Institution” at national level; visible to outside people
       - Efforts well recognized by Home Institution (generally applicable to Nat. Labs)
     + NO
       - Being outside Home Inst. Makes promotions difficult (purely Home Inst. Issue – nothing NSTX-U can do)
       - NSTX-U on-site personnel disconnected from Home Inst. programs, not much communication with Home Inst. On-site collaborators recognize that they need to do a better job communicating with and giving seminars at Home Inst.
   * Have you had the ability to include students and post-docs in your research effort?
     + Not enough funding for students or Home Inst. scientists that could “advise” students who do not want to relocate (DOE cap)
   * Any other, including funding, issues?
     + National lab funding should not have to be recompeted every three years – GA system better?
2. Do you feel NSTX/NSTX-U has been proactive in soliciting input and proposals from collaborators?
   * Very open to collaborator participation
3. How have you attempted to address these issues in the past, and has this been effective?
   * NSTX management satisfactorily intervened in situations where initial run time allocation was not sufficient
4. Suggestions for addressing the concerns of collaborators and enhancing and making more effective the interactions between collaborators and the PPPL researchers?
   * **NSTX-U is a national program and needs to be recognized as such**
     + Need more recognition of this by upper level PPPL management
       - Previous decisions and prioritizations (e.g., NSTX vs NCSX, high level priority presentations to FESAC) did not solicit or incorporate input from collaborators
         * (Nor did it solicit input from PPPL personnel!)
       - Appreciation that PPPL management has difficult constraints, but should not make only PPPL-specific decisions
       - These decisions/prioritizations affect collaborators in an existential way
     + Necessary to ensure communication between PPPL management and collaborators when key programmatic and infrastructure decisions are being contemplated
       - OK with PPPL management to make decisions about NSTX facility (collaborator contract is with DOE, not NSTX), but being surprised is the real problem – early warnings necessary (PI mailing list?)
       - Make decision making process more open and transparent
       - Collaborators (and PPPL personnel!) should be made aware that decision-making process is underway, and should be given the elements of and constraints on the process
       - Actively solicit (and include where appropriate) collaborator input when contemplating future machine and other high level decisions that could affect collaborators (also include PPPL people!)

* Issues that can impact research planning, funding, scope of work, etc.
  + - Some are happy with not having a strong linkage to high level decisions; more interested in the data science
    - Understand that there is a difference between being able to give your input and getting what you want
      * Cannot expect Program to adapt to individual researcher’s program; individual researcher should adapt to Program
      * Recognize that the good of the whole outweighs individual needs
    - Collaborators also need to help in raising profile of NSTX-U as national program
      * Get out and give talks (standard presentation?)
      * Work with Comm. Dept. to send people out
      * Younger U folks want to expand interest to Universities that do not presently have connections to NSTX-U
        + Rutgers, UPenn, Drexel, Delaware
        + University folks give seminars at other Us (show U involvement is possible and good, discuss possibilities for undergrad/grad students)
        + Raise profile of younger researchers
  + **Raise visibility of collaborators and enhance stature of NSTX-U as national program**
    - This will make NSTX-U program stronger
    - Call collaborator (PI mailing list) or full team meeting to discuss potential decisions and priorities
      * Doing this on an as-needed basis is fine, as long as it is done when it is needed!
      * Majority feel if done this way, no need for “standing committee”
    - A couple feel that a Collaborator Council can raise the visibility of NSTX-U as a national program and perhaps garner the influence of U administrators in times of crisis
      * Universities might be able to speak more freely than PPPL since not under such a tight federal umbrella (but can do that individually, even without a Council)
      * Also,
        + want to avoid a structure in which the “group” is used as a justification for a more individual agenda
        + Want to avoid creating an adversarial atmosphere among collaborators
        + Don’t create a committee just for the sake of it
    - Set up Task Forces directed to a specific physics topics which can lead to future XPs – smaller scope than present TFs for PAM, NCC, cryo, etc.
      * Should not be limited to collaborators as leads
      * Stronger motivation for people to participate
      * Program already group-heavy
      * Have to ensure that this is different than doing research for a publication
  + **Collaborators (especially young ones) concerned about post-NSTX-U period**
    - Risk begins after ~five years
    - Want to be involved in developing plans for future programs
    - Having a say is critical; we are all in this together
  + **Some concerned about duplication of effort**
    - No mechanism to arbitrate between those doing the same work; need to ensure new collaborator fits into existing program rather than develop own program (if NSTX-U does not arbitrate, then DOE decides on funding of collaborators based on proposal reviews, and funding of new, duplicate effort will sap resources from existing one)
    - Others indicate that elimination of healthy competition is unhealthy
  + **“Smaller” issues** 
    - Remote teleconferencing poor (audio)
    - Fabrication of parts takes too long
    - Dedicate public space (shared) for hardware work