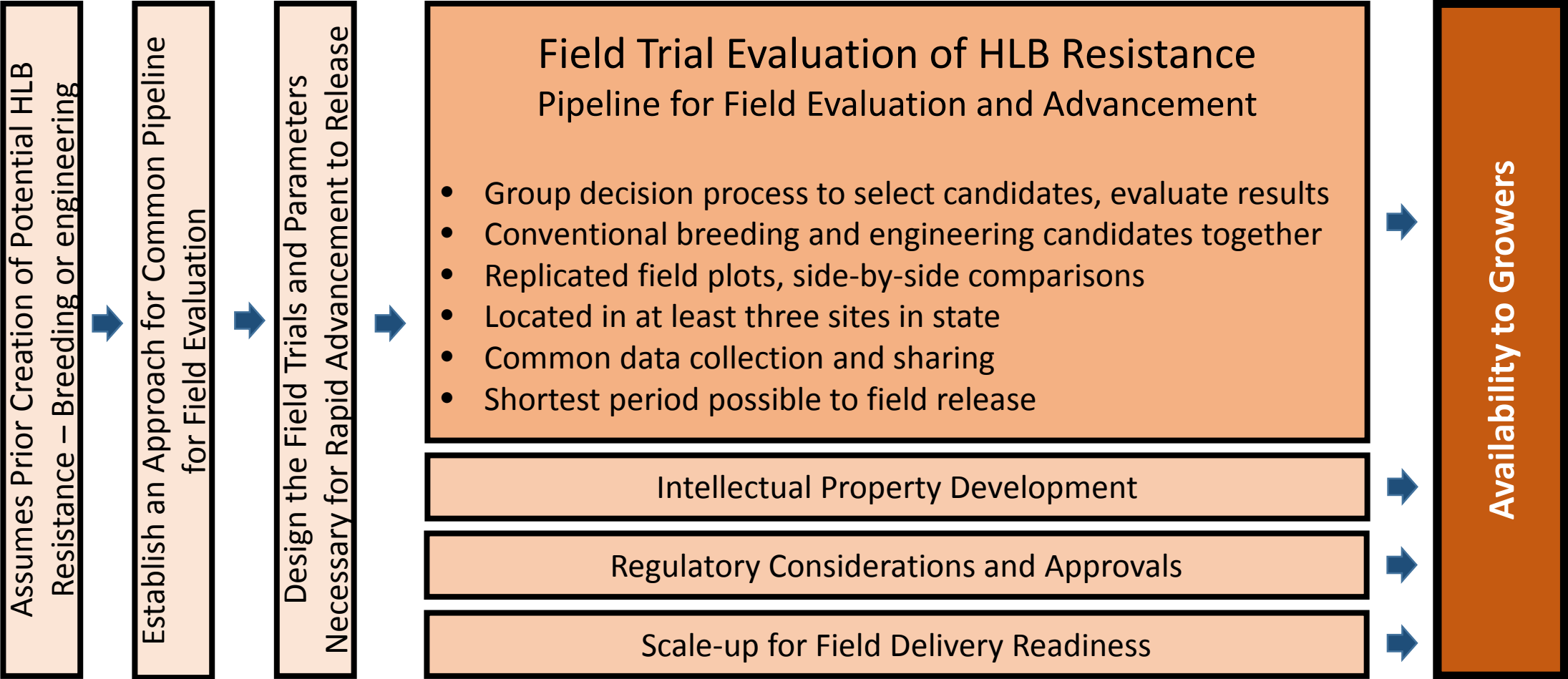




## Knowledge Mapping II – HLB Tolerance or Resistance

- Two-Day session with breeders, engineers from citrus, other crops
- Focus on advancing best candidates for HLB tolerance/resistance
- Designed a process for advanced field trials in parallel with IP, regulatory and scale-up activities
- Compare best available candidates from conventional and engineering projects
- Develop process and metrics for acceptance and advancement of candidates

# Model Pipeline for Delivery of HLB Tolerant or Resistant Plants



# Design and Implementation Details

## Field Trial Evaluation of HLB Resistance – Details to be Worked Out

- Evidence Necessary to Submit Candidate for Consideration
- Plot Replication and other design parameters – How many plants of each candidate
- Production practices – “Best Practices”
- Intensity of Psyllid vector management
- Data collection – What to measure and Common database from trials
- Cycle new series every two years, one set for scions, one for rootstocks
- One-phase evaluation – Field trial to release in 7-8 years or less
- Project Management - CRDF will conduct oversight, data collection reporting
- All funded work in this topical area HLB breeding/engineering conditional on participation in this process



# Citrus Research & Development Foundation

## Next Steps:

- Organize details from mapping activity into process
- Confer with scientists on further details of field plantings, evaluation
- Formalize the process to initiate the 2016 field trial of best candidates
  - Project Manager Recruitment – Pending approval from UF HR
  - CRDF Staff/Project Managers will provide gap leadership to project
  - Appoint Candidate Evaluation Committee
  - Establish a candidate submission petition to seek best candidates
  - Develop timetable for submission, review, acceptance of candidates for inclusion in 2016 trial
  - Characterize details for actual field sites/growers that will host evaluations
  - Provide budget and planning details to CPDC and BOD for approval
  - Initiate Phase I Advanced HLB tolerance/resistance rootstock/scion delivery



# Citrus Research & Development Foundation

## Timeline:

- December 2015
  - Recruitment of Project Manager
  - Establish Evaluation Committee Structure and Charge
  - Continue with field trial detail development with scientists, growers
- January 2016
  - Appoint Candidate Evaluation Committee
  - Publicize request for candidate petitions from breeders, engineers
  - Hold workshop on field trial details and logistics
- February 2016
  - Determine best candidates for inclusion in Phase I trials
  - Develop logistics for propagation of plants for Phase I
  - Present plan and budget for Phase I trials to CPDC, BOD
  - Develop parallel timelines for IP, regulatory and scale-up for Phase I



# Citrus Research & Development Foundation

## CRDF Staff Recommendation:

CPD supports the implementation of a side-by-side field evaluation process for best candidates available for HLB tolerance/resistance, including both rootstocks and scions. In order to move this forward, CRDF directs staff to proceed with details of the process and nominations for the candidate selection committee, with nominations to be approved by CPDC in January 2016. Further, field plans and associated budget are to be presented to CPDC in February 2016 for recommendation to the Board of Directors.