

GRIN-Global data migration and adoption for CIAT's genebank



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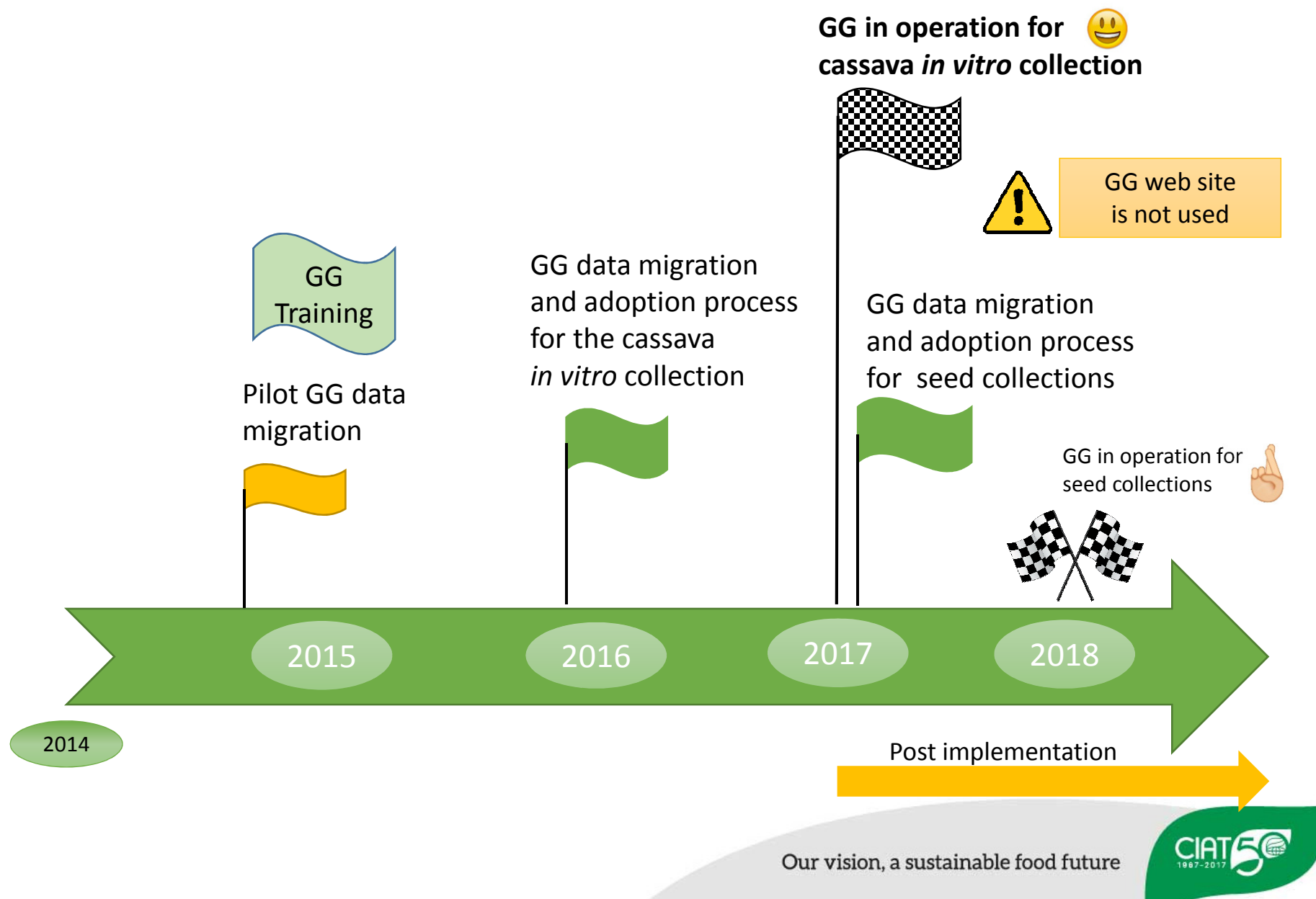


CIAT –Genetic Resources Program

Crop	Conservation	Rank	No. of Taxa	No. of origin country	No of Accessions
Bean (<i>Phaseolus</i>)	Seeds	1	46	110	37.987
Tropical Forages	Seeds	1	734	75	23.140
Cassava (<i>Manihot</i>)	<i>in vitro</i>	1	33	28	6.643
Germplasm accessions as International Public Goods			813		67.770

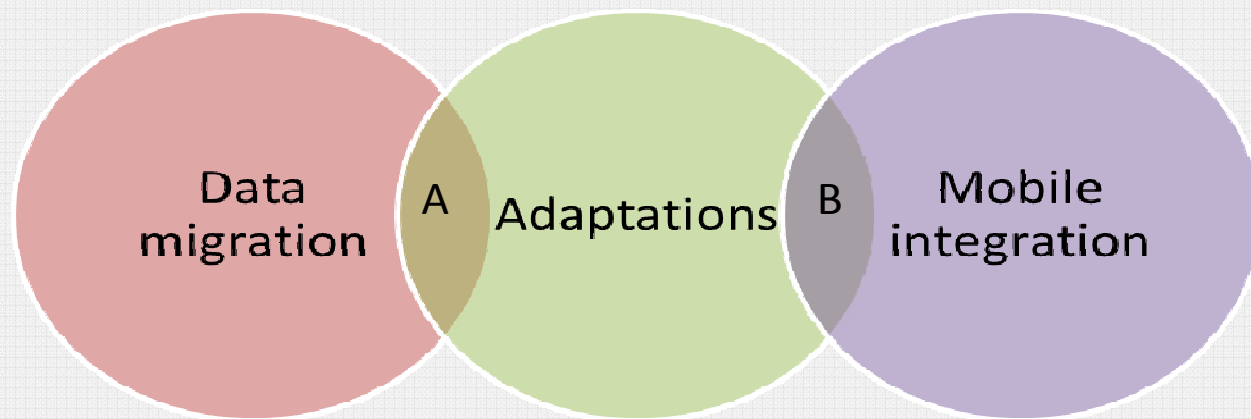


Adoption progress



Migration and adaptation process

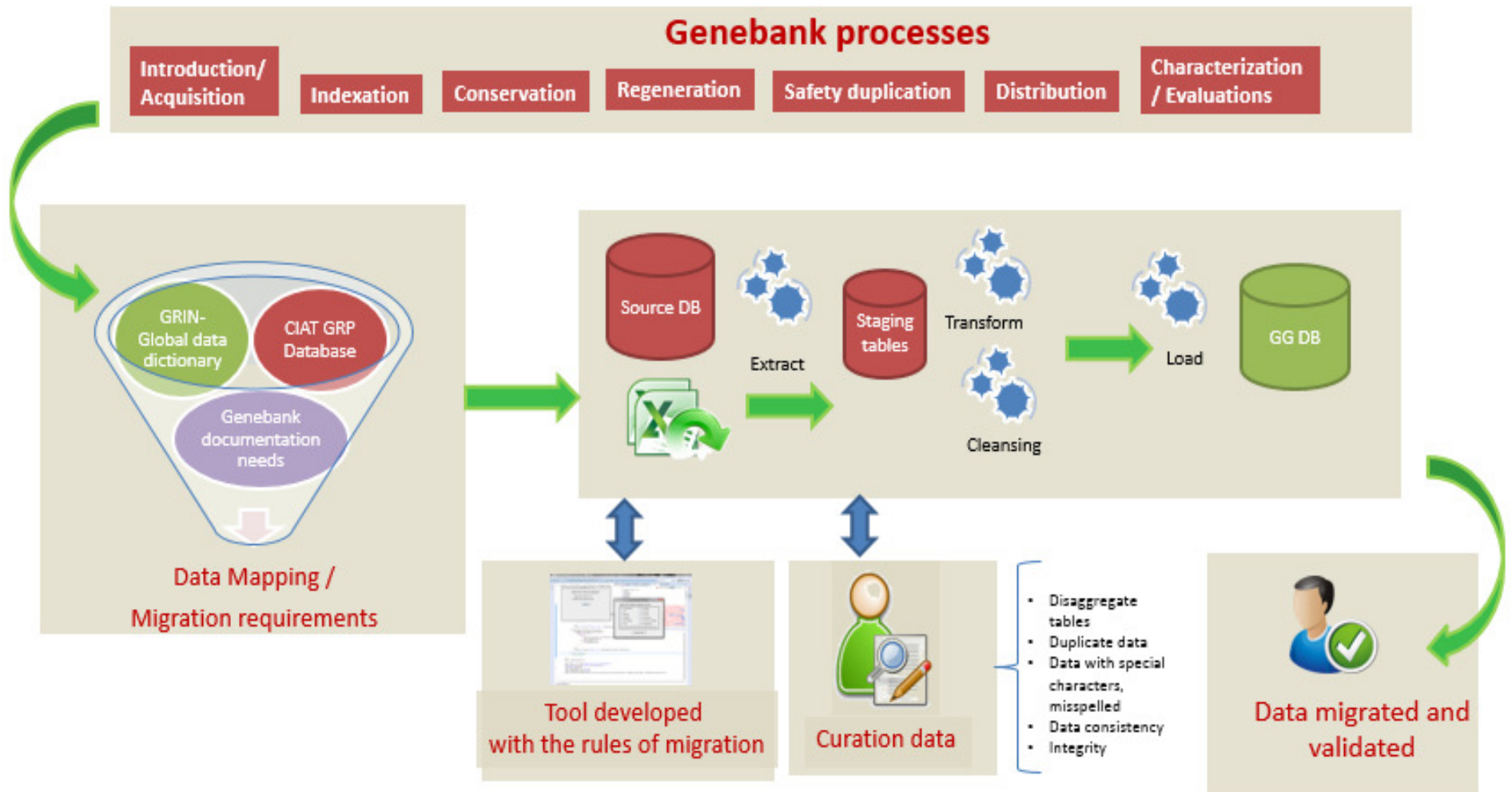
- GG capabilities (e.g. Admin tool, code values, etc.) without modifying the GG source code/adding wizards
- Existing mobile applications were adapted and integrated with the GG database
- Migration tool was developed to meet data migration rules



A) Policy inventories maintenance, code values definitions, and GG DB triggers

B) Data views, web services (RestFul), data synchronization functionalities, and GG DB triggers

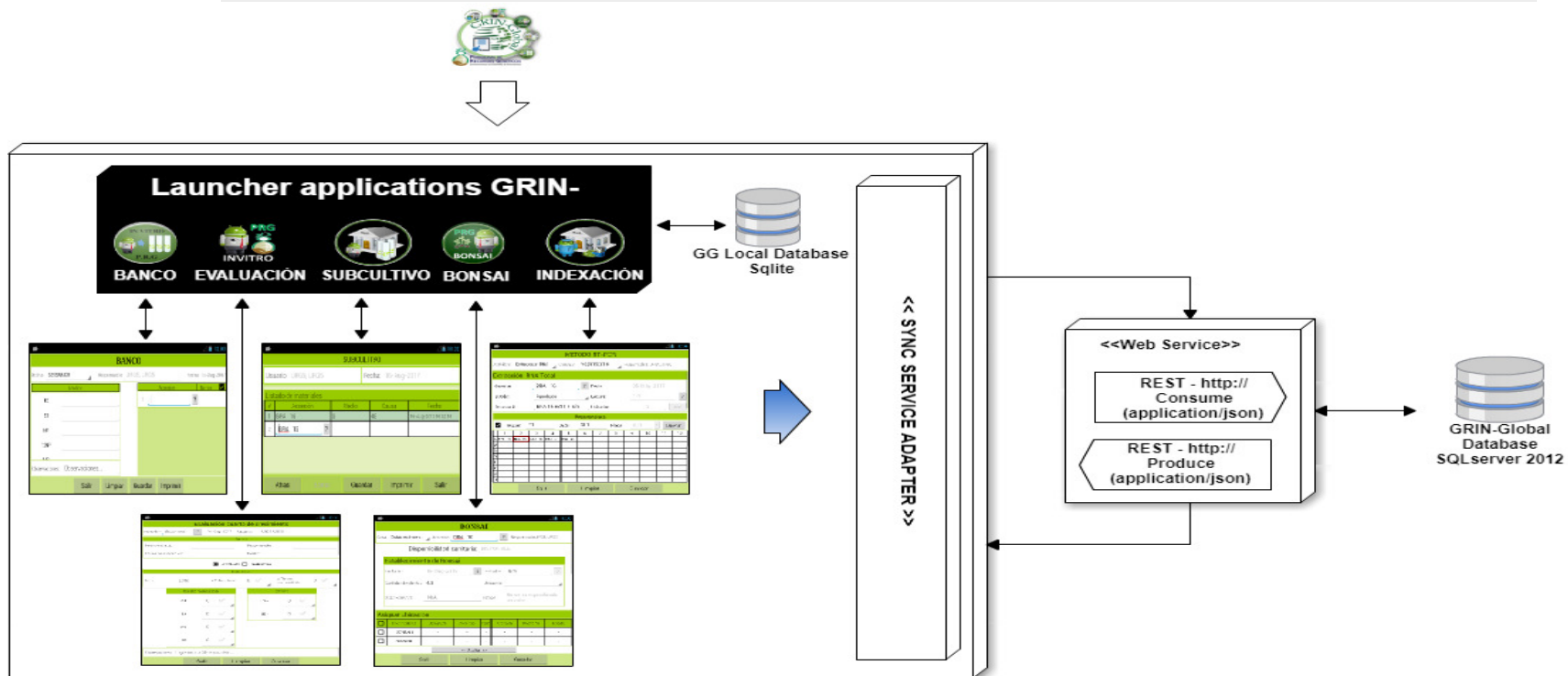
Data migration



Outcomes

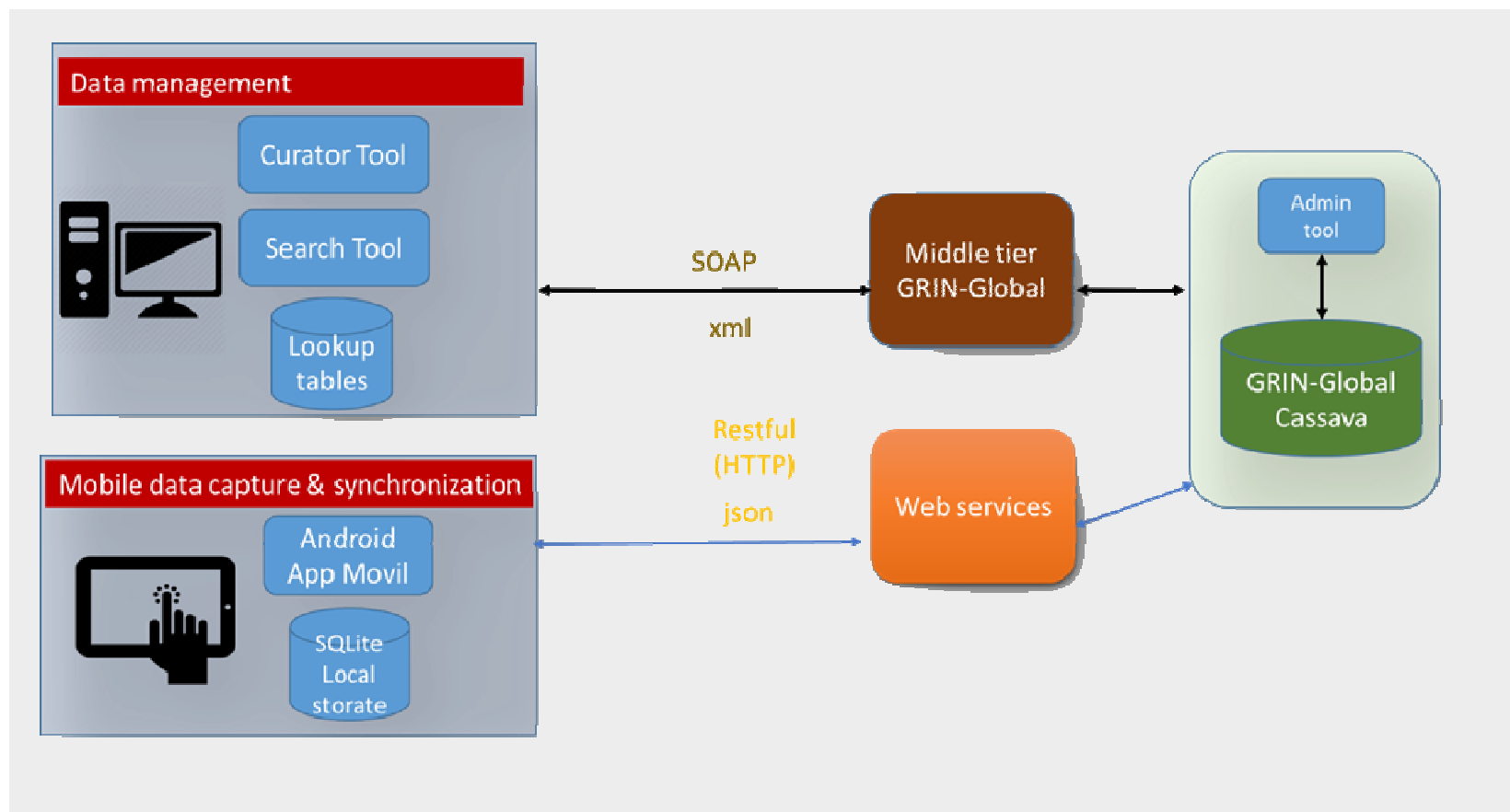
Mobile applications

- Asynchronous data synchronization (online / offline operation)
- Local data persistence at mobile device
- Access control to mobile applications
- Synchronization logs

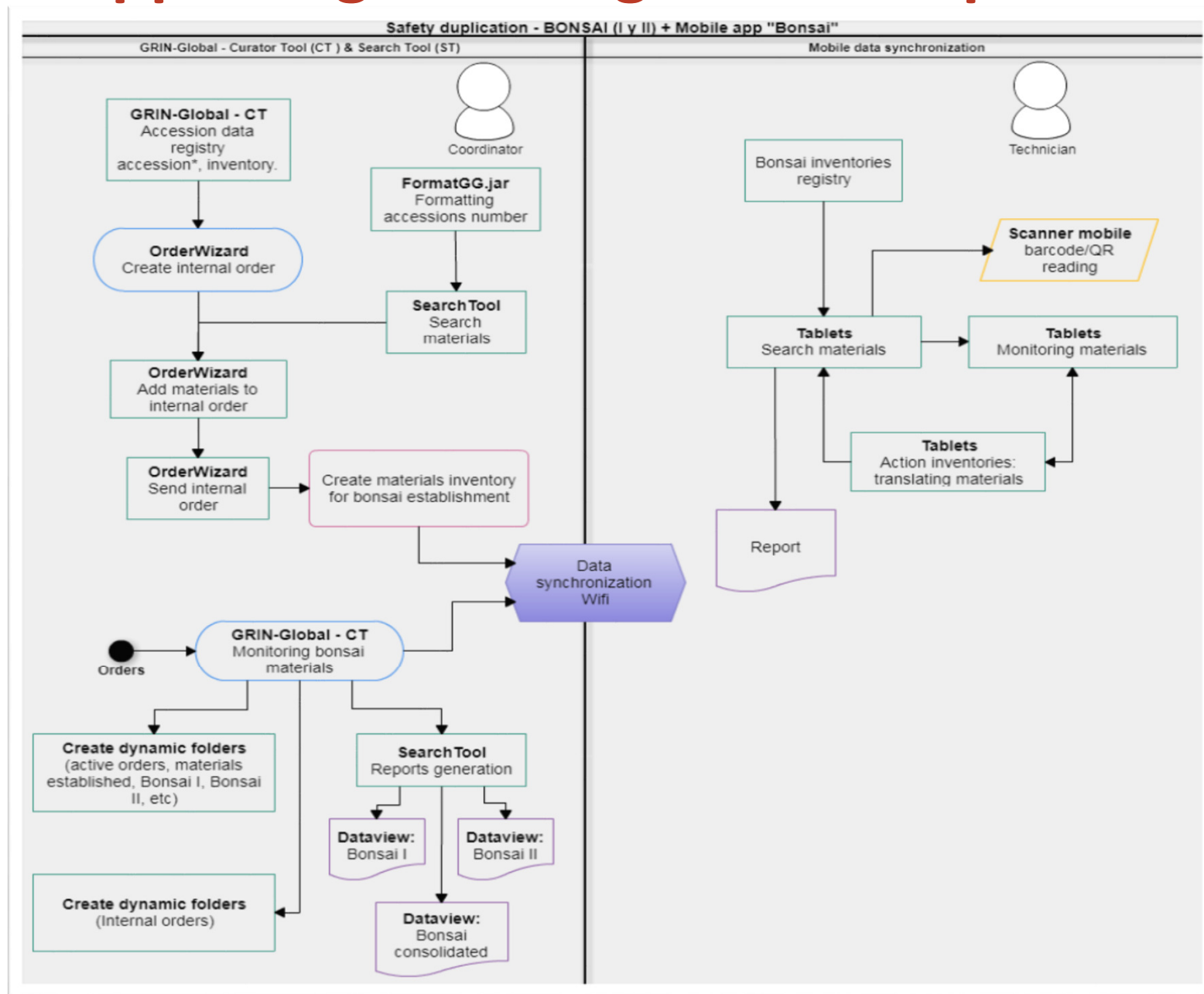


Outcomes

Architecture



GG supporting *in vitro* genebank operations



Lessons learned

- **Legacy system & historical data**
 - Prioritizing on incomplete, duplicate, redundant and conflicting format data in GG.
- **Mobile applications supporting data-entry (inventory actions)**
 - Allowing tracking, identification and labeling of materials.
- **Exploiting GG capabilities**
 - Adding Data Views/data base triggers according of the genebank operations and requirements.
 - Use of code values and language translation
- **Post-implementation.**
 - Monitoring adaptations
 - Additional user training
 - Prioritize and schedule of functionalities improvements

Plans

- **Complete GG adoption for seed collections**
- Create wizards
- Explore Xamarin technology for mobile applications
- Explore possibility of adding capabilities to GG middle tier for mobile applications
 - Asynchronous data synchronization
 - Local data persistence at mobile device
 - Access control to mobile applications
 - Synchronization logs



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