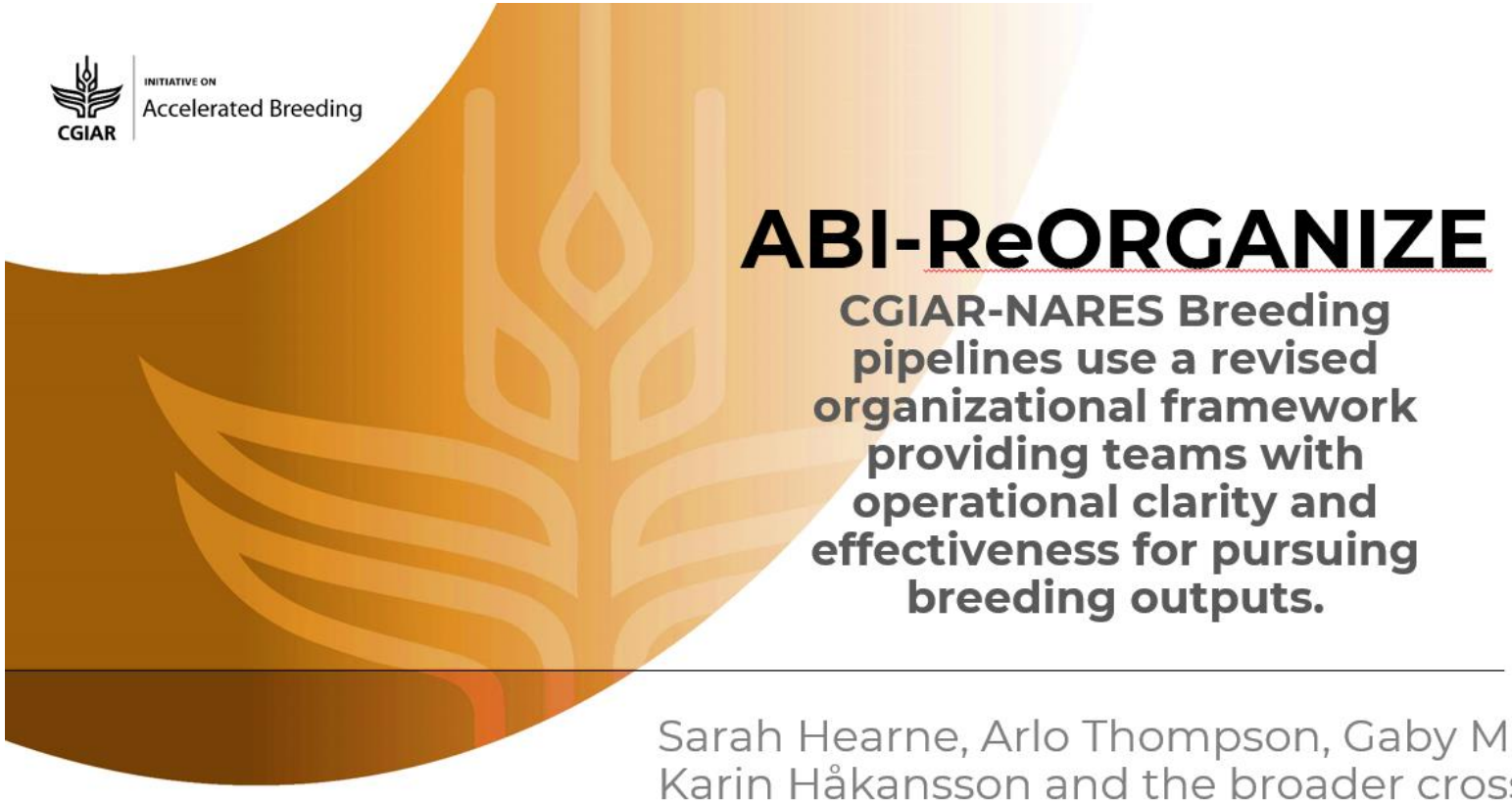
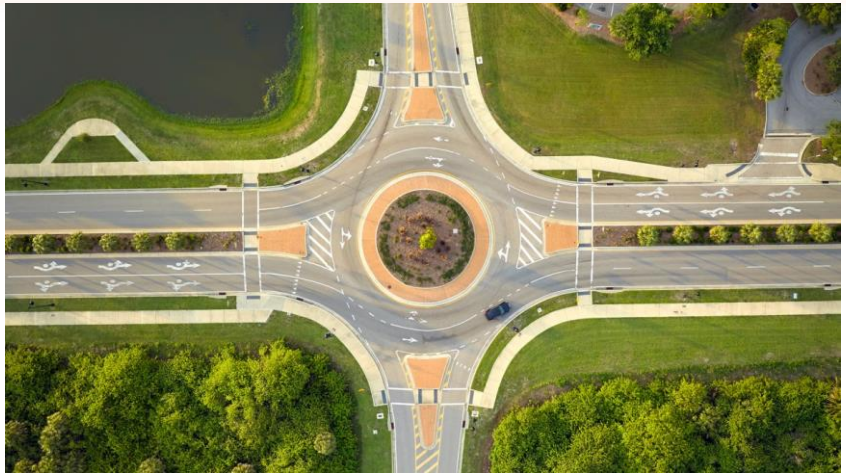
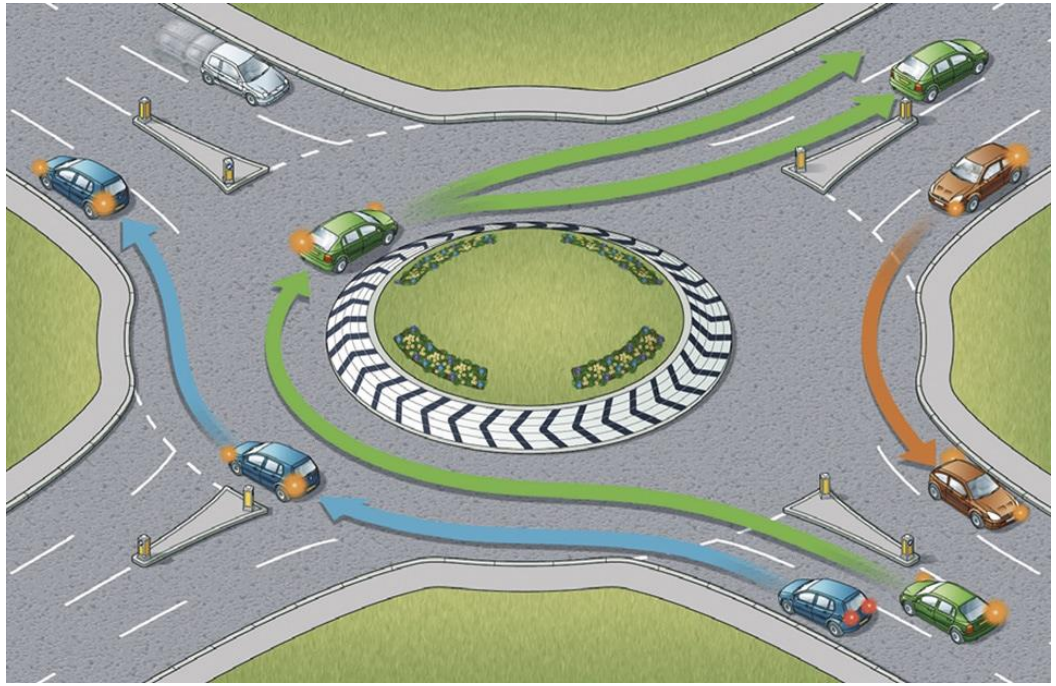
Updates from the Product Development Process team



The Process of Processes





The Process of Processes

ESSENTIALS

- Establish essentials – standardized/harmonized processes supporting consistent and repeatable delivery of products/services :- consistency.

EFFECTIVENESS

- Make sure we are doing the RIGHT THING - effectively delivering the required products/services to customers within agreed resourcing.

EFFICIENCY

- Improve delivery of required products/services to customers- faster, cheaper, with lower transaction cost to use etc.

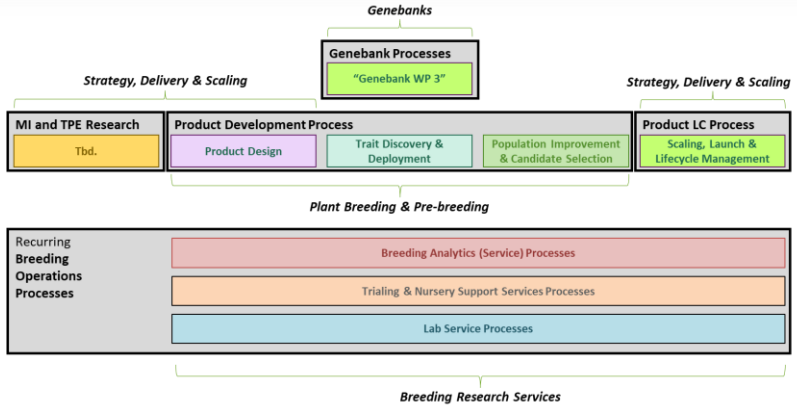
EXCELLENCE

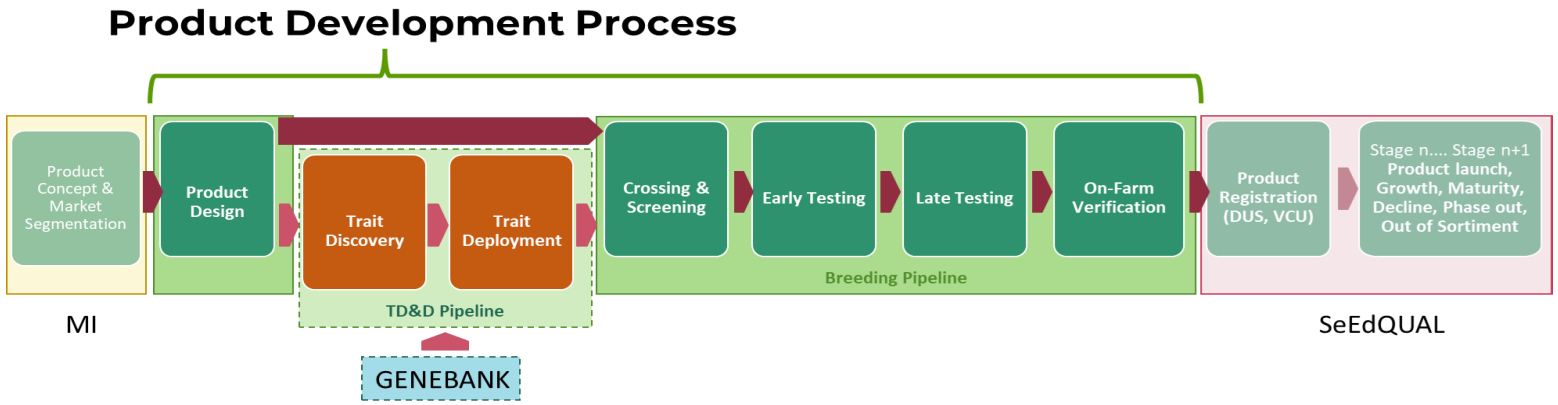
- Essentials + effectiveness + efficiency + continuous improvement on delivering the right thing in the right way.

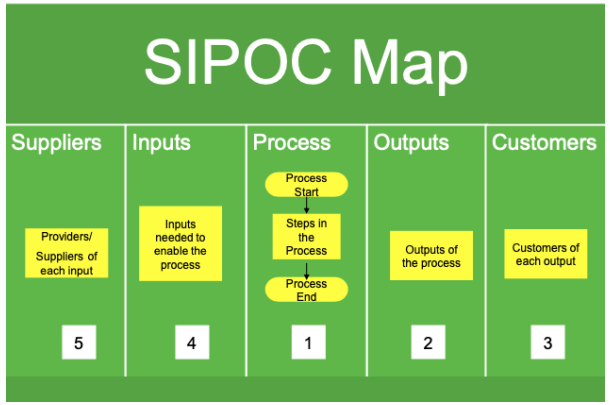
QUALITY MANAGEMENT SYSTEMS

- What gets measured gets done
- What gets measured and fed back gets done well
- What gets rewarded gets repeated.

Unifying high level plan







Supplier(s)- ALL inputs	Input(s)	Process (Stage)	Output(s)	Customer(s)
		MI to elaborate	Product Concept	Next MI Stage
		MI to elaborate	Market Segment Information	Product Design Team
		Stage Gate from MI		
Product design team, Market Intelligence and TPE research teams, breeding pipeline team, TD&D pipeline team, trait specialists	Market Segmentation and Product concept Understanding of existing elite germplasm pools and genetic variance of traits Phenotyping protocols and performance	**Product design**	**Target Product Profile (TPP)** TPP detailing main traits and any potential trait discovery targets	Crossing and Screening teams and where needed Trait Discovery and Deployment teams
		Stage Gate **Product Design to Trait Discovery**		
		Stage Gate **Product Design to Crossing & Selection**		
TD&D teams, trait specialists, genebank teams, breeding pipeline teams, BRI and other specialist services	Trait discovery targets from TPP Appropriate experimental design, phenotyping, genotyping, logistics, data management, and analytics capacities, capabilities, skills, protocols and support	**Trait Discovery**	**Source germplasm and genetic variants** Identified Priority Traits Source germplasm lists Data and knowledge on genetic variants of interest and predictions	Trait deployment teams and, where relevant, crossing and screening teams (genetic variant knowledge)
		Stage Gate		
TD&D teams, trait specialists, genebank teams, Crossing and screening teams, BRI services	Identified Priority Traits, their sources of new variation and/or specific genetic variation of value Recurrent parent sources Appropriate breeding design, trialing design, nursery, phenotyping, genotyping, logistics, data management, and analytics capacities, capabilities, skills, protocols and support	**Trait Deployment**	**Semi Elite Donors** Semi-elite trait donors containing novel variation in demanded recurrent parent backgrounds Data for breeding application including training adjustment	Crossing and Screening teams
		Stage Gate		
Crossing and Screening teams, BRI services, Early testing teams	Target Product Profile Early generation lines with desired breeding value defined in TPP Early generation lines with high realized and predicted breeding value for TPP defined traits Breeding lines with specific desired breeding value Semi-elite trait donors containing novel variation in demanded recurrent parent backgrounds (where needed) Appropriate breeding design, trialing design, nursery, phenotyping, genotyping, logistics, data management, and analytics capacities, capabilities, skills, protocols and support	**Crossing & Screening**	**Experimental Products** Individuals from populations that have anticipated higher breeding value defined by TPP Data for training adjustment Data on exotic allele advancement	Early Testing teams TD&D team
		Stage Gate		

Approved Stage plan

Approved SIPOC

- Align with MI, SE
- Common lexicon

Implementation

Translating from SIPOC

INITIATIVE ON Accelerated Breeding

Product Development Process SIPOC

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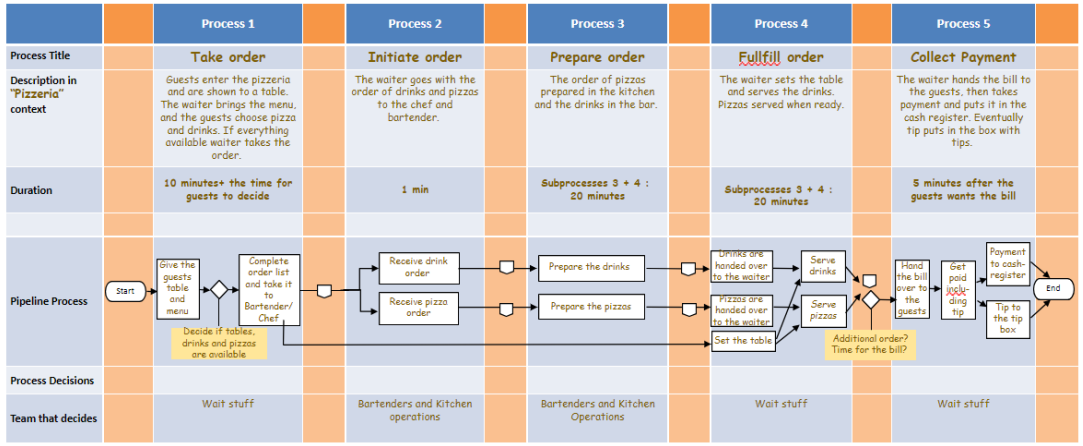
Mapping (WIP)

Process mapping, SOPs – what, how, where



Skills mapping, who – RACI, decision making

KPIs

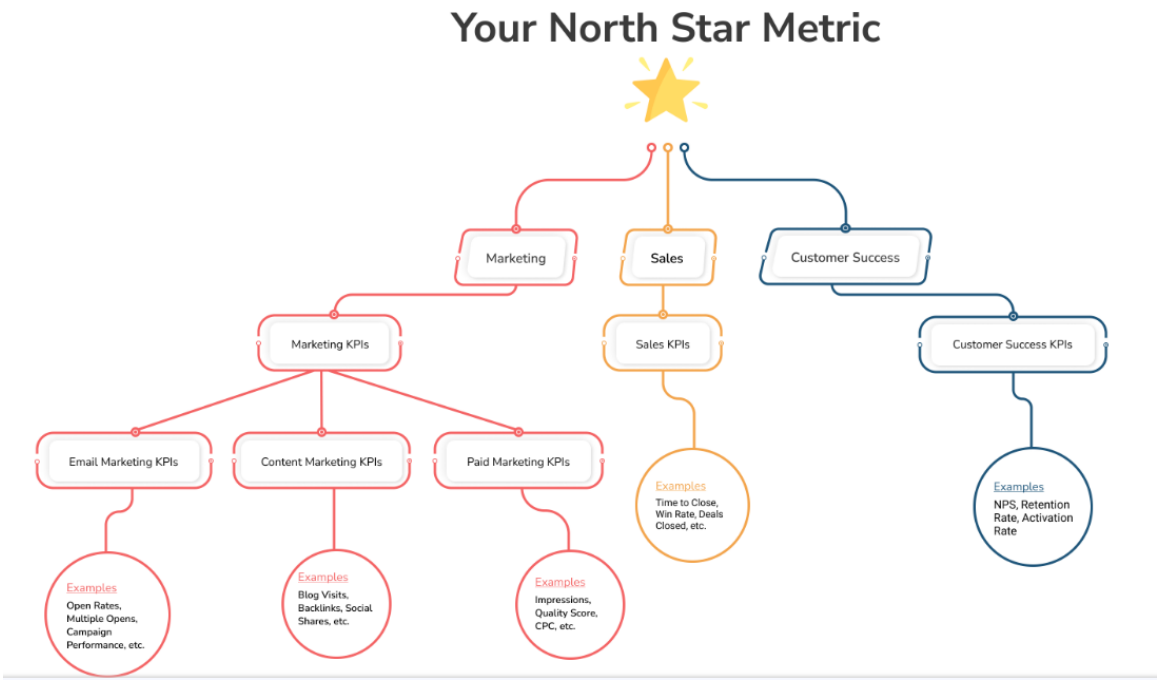
KPIs

Develop a set of high level KPIs to be measured across breeding programs

Metrics- things we measure

KPIs strategic metrics aligned with goals

Every KPI is a metric, but not every metric is a KPI



PPMF working group

Process performance management framework

- Definition and stakeholder endorsement of KPI design principles and processes

- Definition and stakeholder endorsement of KPI MEL framework

Measurement Title	Description	Portfolio	Organizational con	Business Question addressed (Descrip	Action(s) triggered	Business Benefits characte	Ty	Target (if Type = KPI)	Owner	Status	Source Process	Source Process	Required input	Source(s) of input	Calculation	Categor	Classifica	RoI lever
Measurement Name	*Short description of the Measurement*	*Grouping*	*Crop Center Crop Pipeline Site Location*	*What exactly is described through the measure and its score?*	*What corrective action(s) would be taken in response to the score?*		*Metric OR KPI*		*Name*	*current stat profile*	*Source Process Name*	*Process Category/ Process Group/ Process/ Activity/ Task*	*Is the data needed for the measurement/ KPI available and (easily) accessible?*		*What is the most appropriate compilation of raw data for the question addressed?*	*Lead Measure OR Lag Measure*	*Economic OR Effectiveness OR Efficiency*	*Inventiveness OR Relevance OR Operational Excellence*
# germplasm created	The number of germplasm entries created through use of the EBS system	EBS	All EBS adopting programs	What is the extent and pace of EBS adoption by the breeding program?	Metric Owners pay attention to EBS adoption progress Computing resource (cloud) and support need can be tailored		Metric		Crop lead	IN USE	Technology Adoption	Project Measure (not in BPM scope)	data being generated and captured in the database as a result of people using the system	EBS production database	# germplasm records in EBS	Lead Measure	Effectiveness	Operational Excellence
# experiments created	The number of experiments created through use of the EBS system	EBS	All EBS adopting programs	What is the extent and pace of EBS adoption by the breeding program?	Metric Owners pay attention to EBS adoption progress Computing resource (cloud) and support need can be tailored	Data quality improvement Process efficiency improvement More informed decision making on-time decision making Proof of RoI into EBS	Metric		Crop lead	IN USE	Technology Adoption	Project Measure (not in BPM scope)	data being generated and captured in the database as a result of people using the system	EBS production database	# experiments records in EBS	Lead Measure	Effectiveness	Operational Excellence
# occurences created	The number of occurrences created through use of the EBS system	EBS	All EBS adopting programs	What is the extent and pace of EBS adoption by the breeding program?	Metric Owners pay attention to EBS adoption progress Computing resource (cloud) and support need can be tailored	Data quality improvement Process efficiency improvement More informed decision making on-time decision making Proof of RoI into EBS	Metric		Crop lead	IN USE	Technology Adoption	Project Measure (not in BPM scope)	data being generated and captured in the database as a result of people using the system	EBS production database	# occurences records in EBS	Lead Measure	Effectiveness	Operational Excellence
# occurences harvested	The number of occurences harvested using the EBS system	EBS	All EBS adopting programs	What is the extent and pace of EBS adoption by the breeding program?	Metric Owners pay attention to EBS adoption progress Computing resource (cloud) and support need can be tailored	Data quality improvement Process efficiency improvement More informed decision making on-time decision making Proof of RoI into EBS	Metric		Crop lead	IN USE	Technology Adoption	Project Measure (not in BPM scope)	data being generated and captured in the database as a result of people using the system	EBS production database	# occurences records in EBS	Lead Measure	Effectiveness	Operational Excellence
# plot data points created	The number of plot data points collected using the EBS system	EBS	All EBS adopting programs	What is the extent and pace of EBS adoption by the breeding program?	Metric Owners pay attention to EBS adoption progress Computing resource (cloud) and support need can be tailored	Data quality improvement Process efficiency improvement More informed decision making on-time decision making Proof of RoI into EBS	Metric		Crop lead	IN USE	Technology Adoption	Project Measure (not in BPM scope)	data being generated and captured in the database as a result of people using the system	EBS production database	# plot data points in EBS	Lead Measure	Effectiveness	Operational Excellence
# seed packages created	The number of seed packages created using the EBS system	EBS	All EBS adopting programs	What is the extent and pace of EBS adoption by the breeding program?	Metric Owners pay attention to EBS adoption progress Computing resource (cloud) and support need can be tailored	Data quality improvement Process efficiency improvement More informed decision making on-time decision making Proof of RoI into EBS	Metric		Crop lead	IN USE	Technology Adoption	Project Measure (not in BPM scope)	data being generated and captured in the database as a result of people using the system	EBS production database	# seed packages records in EBS	Lead Measure	Effectiveness	Operational Excellence
User satisfaction rating for EBS Service Desk response	Average number of stars (0-5) given by the user as a rating of satisfaction with their interaction with the service desk	EBS	EBS service desk	Are users receiving a satisfactory level of support when using the help desk, i.e. getting the information they need in an understandable and friendly manner?	Service desk load and dispatchers review procedures and documentation, additional training for dispatchers	Increased user satisfaction and productivity, positive reinforcement to use the EBS platform and the EBS service desk	KPI	4.5	Andrii Embernics	IN USE	Technology Adoption	Project Measure (not in BPM scope)	The user rating (number of stars) which can be optionally provided when a ticket is closed. Target is 4.5 or higher (out of 5)	JIRA ticketing system	The average number of stars received on the service desk inquiries.	Lead Measure	Effectiveness	Operational Excellence
Response time to EBS Service Desk inquiries	The percentage of tickets submitted to the support desk that receive a first response within 1 hour	EBS	EBS service desk	Are inquiries and requests related to the EBS platform being handled and responded to in a timely manner?	Service desk load and dispatchers review procedures, staffing levels	Increased user satisfaction and productivity	KPI	95%	Andrii Embernics	IN USE	Technology Adoption	Project Measure (not in BPM scope)	Submit time and response time captured by the JIRA ticketing system. Target is 95% of tickets have first	JIRA ticketing system	Time elapsed between when a ticket is submitted by the user and when a human provides the initial response	Lead Measure	Effectiveness	Operational Excellence

Source_Level
Process Category
Process Group
Process
Activity
Project Measure (not in BPM scope)
Function Measure (not in BPM scope)
to be clarified

Classification
Effectiveness
Efficiency

RoI lever
Inventiveness
Relevance
Operational Excellence

Status
IN USE
DEFINED
PRIORITIZED for Definition
IDENTIFIED
Mock-up example

Type
Metric
KPI

Category
Lag Measure
Lead Measure

KPIs

INITIATIVE ON
Accelerated Breeding

Working group:

Arlo Thompson, Brigitte Uwimana, Xiaofei Zhang, Kevin Pixley.

Built from existing KPIs (rice, maize), input from the team, review and input from the core team – iterative process

From >60 potential indicators to 26 KPIs relevant to breeding performance and modernization goals

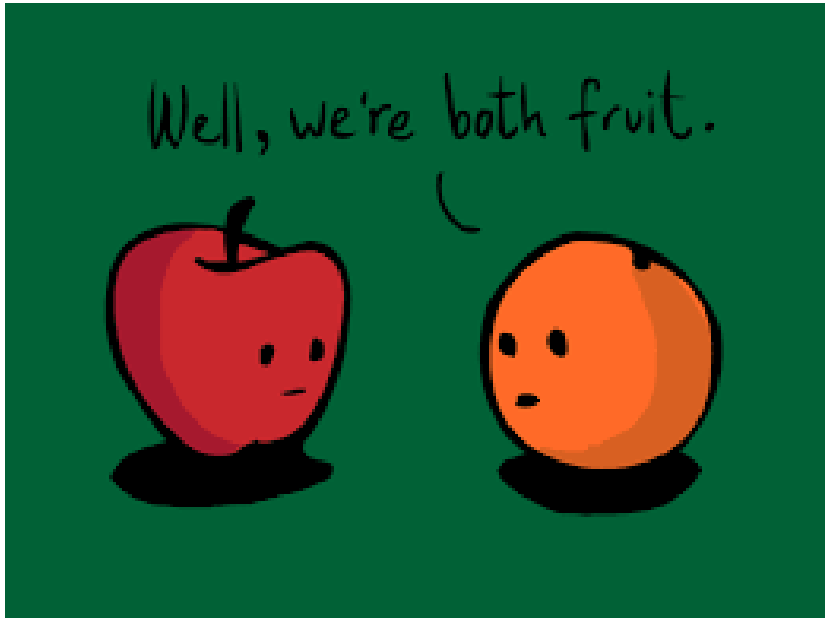
Grass-root buy-in, much improved cohesion

Product Development

	Evidence to capture		Evidence to capture
1	Attain genetic gain targets	14	Site management achieves >85% high data quality
2	Breeding Portal is single source for MS/TPP	15	Digitized data capture & focused on advancements
3	Clear, concise TPPs drive mid/long term focus	16	Use of databases: EBS, BreedBase, BMS
4	MS/TPPs guide resource prioritization (Tiers)	17	Checks that are elite for TPE
5	Active current TDD projects maintained and updated quarterly	18	Advancement decisions are jointly conducted
6	All crops follow harmonized practices to assess trait value and ROI of TDD	19	Aggressive early testing, representing TPP & TPE
7	Minimize recycle time with process/technologies	20	Products advanced to OFV provide added value
8	Recycling of pre-elite/elite parents (>90%)	21	OFVT represent TPE @ 30+ locations
9	Use of selection indices	22	Gender disaggregated data from OFVT
10	QC genotype parents and advanced trial entries	23	Develop external networks with partners
11	Monitor genetic diversity long term	24	Training in continuous improvement, all levels
12	Employ Breeding Scheme Mgr to define schemes: Breeding &TD&D	25	Continuous process improvement in all planning
13	Minimum level of acceptable trial / data quality	26	Team evaluation: Breeding success

KPIs

- Review of and endorsement of high-level harmonized KPIs by Breeding leadership
- Crop/program/pipeline specific targets
- Harmonized, effective and efficient measurement approaches- analytics pipeline
- Reporting support- make it easy- breeding portal, breeding scheme manager, PMC



Thank you to the process teams esp the ReOrg team

CGIAR
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