
AGPM

The Agriculture Pull Mechanism Initiative

September 12, 2011

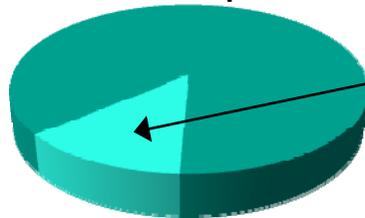


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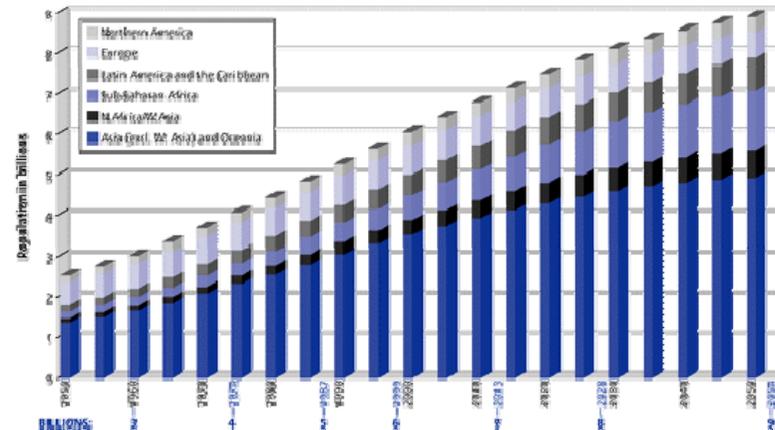
The global agricultural challenge

Improving the productivity of farmers in developing countries and achieving food security for the world's poorest and most vulnerable individuals.

2010 Global Population



925 million suffer from chronic hunger



Population growth will continue and be urban centric, putting more stress on agricultural supply

Public funding mechanisms can help overcome market failures and “pull” the private sector into innovating for agriculture in the developing world.



Pull mechanisms

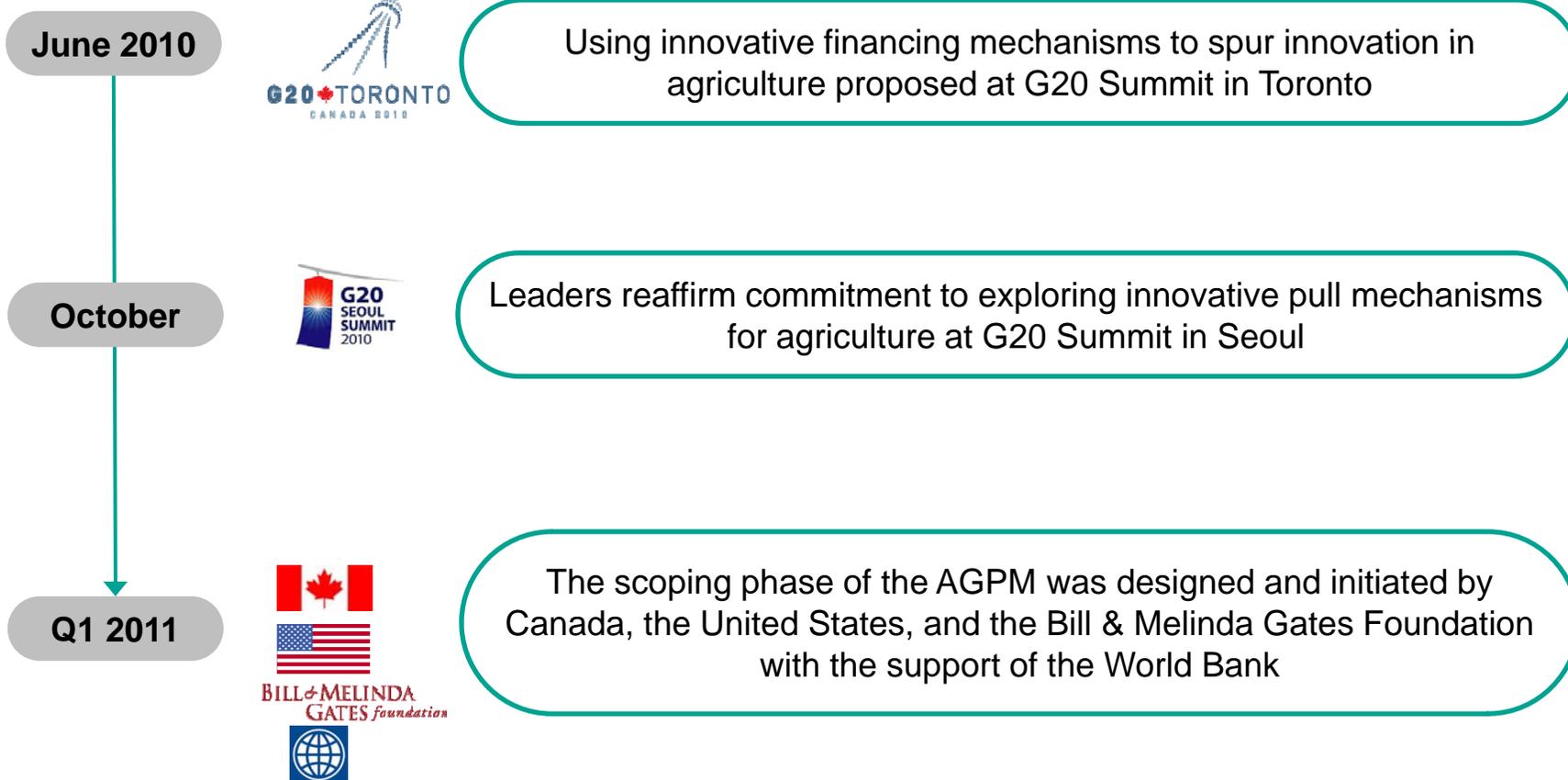
Pull mechanisms overcome market failures by incentivizing the private sector to develop and market innovative products or services. These incentives are made through payments triggered by desired results.

...and are best used when:

- **Positive externalities are not being captured**
 - **There is imperfect competition but potential for a sustainable market**
 - **Information asymmetries are large**
 - **Innovators are willing to accept outcome risk**



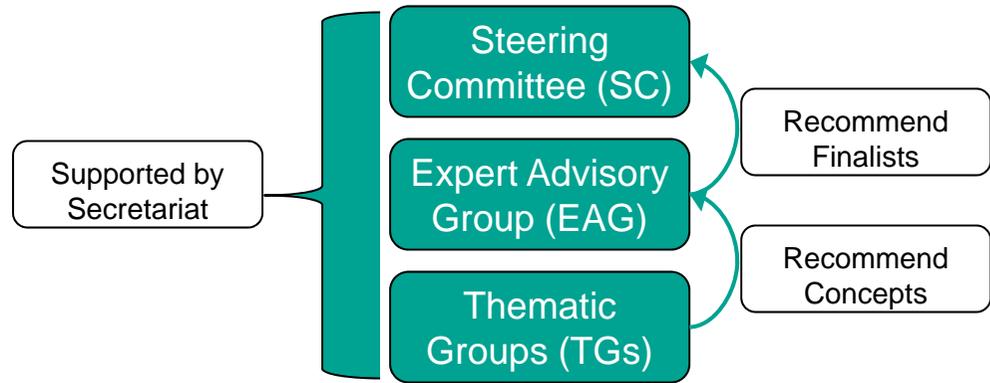
Project genesis



Governance and formulation – setting the foundation for the AGPM key to ensuring a good source of idea generation

Q1 2011

Designed governance structure to ensure expert quality and independence



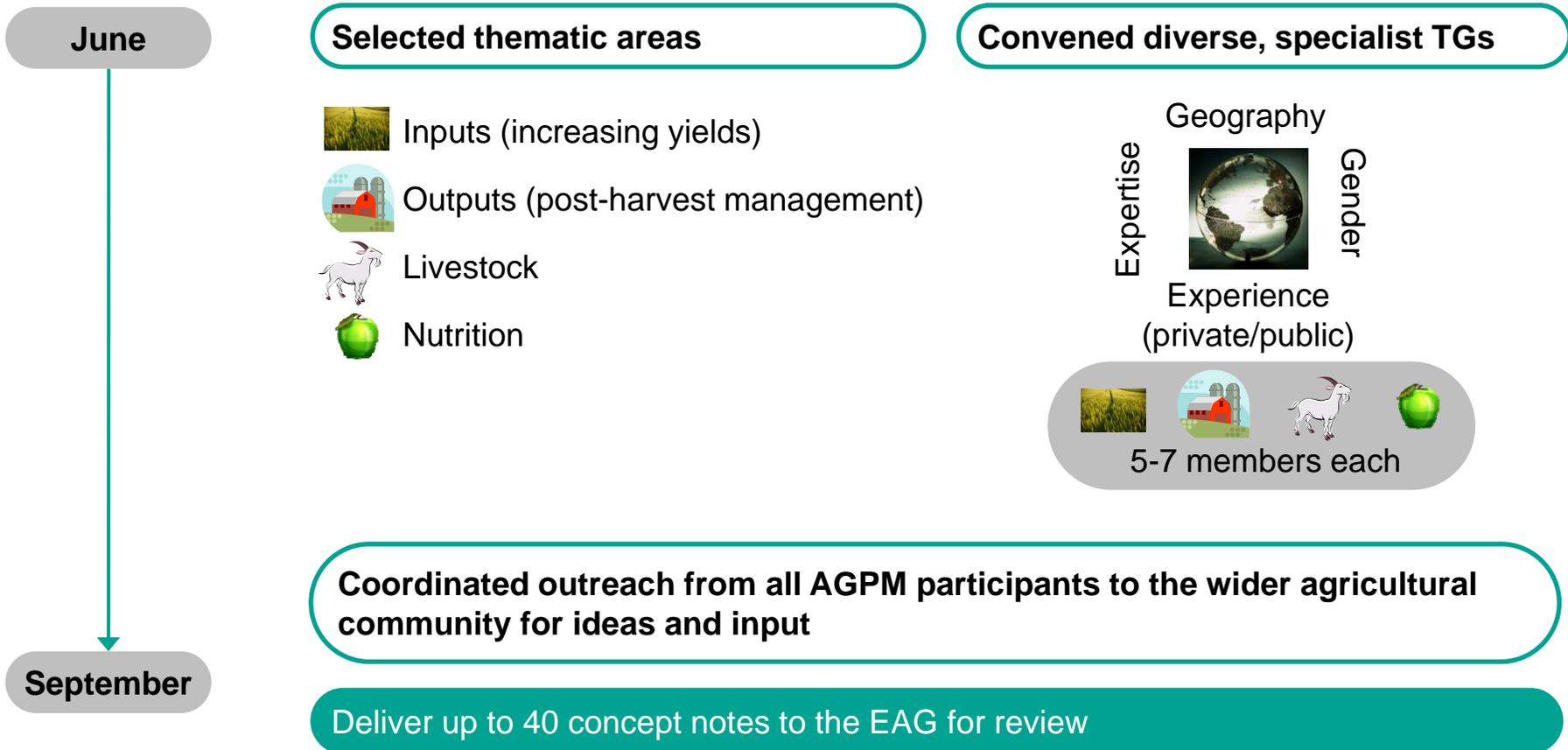
Assembled the EAG to independently create “marching orders”

- Objective** → Enhance smallholder welfare and food security for the poor and vulnerable in developing countries
- Specific goal** → Establish incentives for private sector innovators to deliver market-based goods/services that enhance food security and smallholder welfare
- “Scoping” outcomes** → Identify a short list of feasible, high impact pull mechanisms for piloting

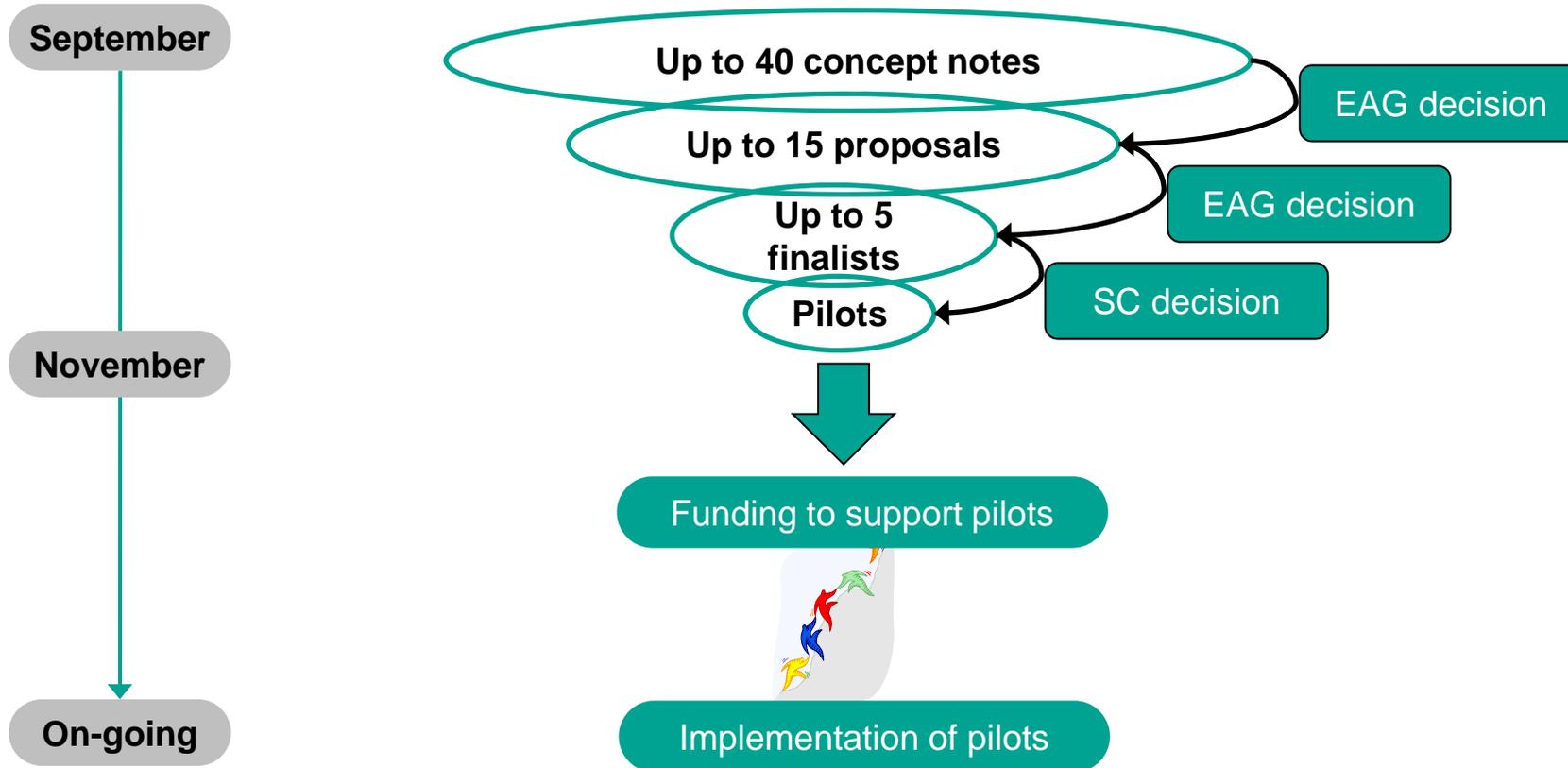
June



Idea generation – relying on specialists with detailed sector knowledge across four key areas of food security



Develop, select and implement – *the key next steps in the AGPM will build ideas into full fledged proposals, ultimately being funded and implemented*



A sample of the ideas currently being explored:



Inputs (increasing yields)

Advance hybrid rice by developing commercially viable, publicly available female inbred lines with grain quality traits

- A prize would be awarded to institutions that develop and release a new female line that would address the current quality issues associated with hybrid rice.

Improving the efficiency of farmers' water management

- The proposed two-tier pull mechanism comprises a standard prize to incentivize technology development and a proportional prize to incentivize adoption of management technologies that can enhance water use efficiency and water productivity.

Crops with enhanced adaptation to drought-prone environments

- An advanced market commitment for crop seeds to support a market for seeds of newly-bred cultivars whose yields could be above 40% of existing ones in drought-prone environments. This commitment will purchase the seeds for small (poor) farmers to grow or provide a guarantee of purchases to those breeding and making available such crops for drought-prone environments.





Outputs (post-harvest management)

Lower the price of post-harvest storage technology

- The objective is to stimulate the widespread use of improved post-harvest grain storage systems through the delivery of a package of knowledge and technology that can be sustainably delivered through private sector input suppliers.

Incentivize and facilitate the use of Aflasafe™ biocontrol to avoid aflatoxin contamination of crops

- A proportional prize could be paid as a premium for toxin-free crops or for displacement of toxigenic organisms in the soil; a standard prize could support scaling up of biocontrol production and/or the development of cheap diagnostic technology.

Farmer support systems to improve plant health

- The mechanism would reimburse the fixed cost of establishing clinics and support functions for the clinic network, through an impact-based incentive payment to operators.





Livestock

Facilitation of a progressive control of peste des petits ruminants “PPR”

- The mechanism would aim to provide an advanced market commitment for the development of effective PPR vaccines for livestock

Quality analysis tools for smallholder dairy production and payment mechanism

- A prize would provide an incentive to adapt and/or develop quality assessment tools for collection centers at village level in addition to a payment mechanism to bring smallholders to the formal market.

Sustainable access to veterinary products in rural SSA

- The mechanism would provide ex-post financial incentives to large livestock service providers and products manufacturers to integrate small distributors into their supply chain and to address the “last mile” distribution problem.

Developing field tests that assess quality of livestock inputs

- A prize would stimulate R&D to develop three quality testing tools that are affordable and can be used in the field (feed quality test for crude protein and energy; semen mobility test kit; DNA test for assessing the breed composition of a cattle)





Nutrition

Industrial fortification of wheat, maize, rice and oil

- A proportional prize would provide a reward for producers undertaking fortification of cereal staple foods (wheat flour, maize and rice) and vegetable oil with essential micronutrients

Quadruple fortification of instant noodles

- A proportional prize would incentivize the instant noodle producers to undertake fortification (vitamin A, iron, iodine and zinc) of instant noodles with fortified seasoning packets.

Affordable technology solutions to make iron highly bio-available in low-availability diets

- The mechanism would incentivize the development of low-cost technologies that make iron highly bio-available in low-availability diets. Investment in improved production processes and new products is currently depressed by uncertain demand for improved fortification technology, knowledge externalities, and first-mover cost.

Developing diversified and local production of ready-to-use foods (RUF)

- An advance market commitment and/or patent buyout can be designed to incentivize both greater participation and diversity of offerings in the RUF marketplace.



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