

Game changer: “Democratization of prevention”
Animal health improvements through prevention.

What problem is the solution trying to address?

Animal-sourced products contribute 39% of protein and 17% of calories of global diets. 20% of livestock are lost to disease each year and likely more in developing countries. High incidence of animal disease leads to lost productivity, damaged livelihoods, higher food prices, reduced supply, increased GHG emissions and greater risk of AMR development.

Animal disease incidence increases dramatically during periods of internal and external stress - such as conflict, rising temperatures, etc.

Modern livestock operations have embraced the use of prevention tools such as vaccines, biosecurity improved nutrition alongside prediction technologies such as digital health monitoring driven by data analytics. This approach has helped operations in many regions cut their footprint, while simultaneously increasing productivity, and reducing negative impact from stresses.

But prevention strategies are underutilized in small operations and low-and-middle income nations. This includes not just sophisticated technologies, but simple tools such as vaccines that can be administered by paraprofessionals or the farmer.

Lack of veterinary expertise, access to medicines and financing, and cultural factors mean some will rely on treating livestock disease only when animals are visibly ill. This farm-level decision affects the entire value chain and the community around them. It makes destabilizing outbreaks more common, increases risk of AMR and zoonoses spillover, and reduces the availability and affordability of food.

What is the solution?

Future food systems and animal agriculture must be built on *prevention* across the globe, not just in wealthier nations or on large farms. This initiative called “*Democratization of prevention*” is designed to provide solutions to this multifaceted problem. It is an effort to bring prevention to the developing world, and would include the following four elements:

1. *Prevention Index*: Measuring how well countries utilize these strategies.
2. *Prevention Partners*: Twinning program connecting producers, researchers, governments in nations with high prevention index scores with those in nations with lower scores.
3. *Prevention Training*: Sharing knowledge about prevention strategies, coupled with economic benefit.
4. *Prevention Comms*: Ensuring prevention becomes a leading message in the food security discussion.

What were the sources from which this solution emerged?

This solution borrows and applies proven approaches already applied in agriculture/development programs.

- indexes exist in many different projects
- twinning is a widely used concept
- training is something both public and private authorities do already

Why is addressing the problem important for achieving the goals?

FAO has found developed nations doubled livestock production in the past 40 years while cutting land use by 20%. Appropriate application of these solutions in developing nations = greater productivity for the farmer, better resilience as disease is stopped before it strikes, and more nature-positive production - All of which contribute to better social economic and nutritional resilience.

How can this solution address that problem?

A situation exists where the developed part of the world has managed to minimize the impact of animal disease with all the benefits that come with that: for humans, animals, society at large. Many countries in the developing world have not embraced prevention in the same manner for a variety of economic, access, etc. reasons. This game changer could deliver significant benefits at all levels for **all action tracks**.

Inputs and actions

- voluntary buy-in from countries who want to participate - twinning is a voluntary action between producers, researchers, governments,
- a small secretariat that coordinates central resources and twinings would be composed - this could be funded from private and/or public/ charity sources - working models for this exist already,
- no significant financial resources are needed from international organizations - private producers have an interest in ensuring increased uptake of prevention so can play a significant role,
- the main role of international institutions like the United Nations, FAO, OIE would be focused on prevention communications,

Why does this solution align to the definition and criteria for a 'game changing solution' developed by the Summit?

It is game changing because

- **it works** - prevention of animal disease has been shown to work across the globe
- **it is feasible** - it has been done before in different areas
- **it is scalable** – twinning and strategies they apply can be emulated
- **motivations** - the motivations of different players are open and acknowledged, and to everyone's benefit – there are no competing motivations
- **investment** - investment is predominantly time and expertise of specialists with relatively low operating costs
- **process** - this type of activity can take place with or without official endorsement of global bodies - there is no reason for delay for "political" reasons.

What is the current and/or likely political support for this idea?

It is likely that developing countries would welcome expertise and input through/by being twinned with specialists from another country. As this is a very **operational idea** which does not have any major political hurdles there is no reason to assume that there should be any opposition. Besides the obvious players like FAO, OIE and academic and producers groups,

the Gates foundation, ILRI and others do work in animal disease prevention in developing countries.

Are there certain contexts for which this solution is particularly well suited?

Twinning experts and/or government departments from developed countries with less developed countries has worked for many years in different programs.

What do you think are the key actions required to address this solution?

As stated earlier, the value of this concept is that it is not complex and allows for the building of relations between twinned countries. The specificities will differ per twinning - some may want to involve government some may want to involve only the private sector, most will likely involve both and civil society, so it is impossible to answer this question at this point.

Any other remarks or comments you would like reflected in AT5's report out on 'game changing' solutions (optional)

This concept is not complicated - it's basically wedding those who have successfully applied techniques with those who haven't done so yet for whatever reason. Animal disease prevention has been acknowledged by all the specialists in the public and private sectors as the most significant area impactful efforts will make the most positive change.