

# Reflections on sectors progress in bringing about necessary changes

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**Not responsive to the fast dynamics of  
the sector**

# The demand for livestock products 1990 - 2015

	Fish, Seafood	Milk - Excluding Butter	Eggs	Meat	Bovine Meat	Mutton & Goat Meat	Pigmeat	Poultry Meat
Europe	4.5	25.2	0.6	1.8	-8.8	-1.4	0.8	10.6
Northern Africa	8.7	47.8	1.3	12.2	3.3	1.9	0.0	6.5
Western Africa	6.8	6.6	0.3	2.8	0.2	1.2	0.4	1.6
Eastern Africa	-0.9	17.3	-0.1	0.5	-0.2	-0.1	0.4	0.4
Middle Africa	3.6	-5.5	0.4	8.4	-1.1	0.4	2.2	7.2
Southern Africa	-1.9	8.4	3.3	23.2	-1.2	-1.1	2.4	22.3
Eastern Asia	19.0	29.7	11.2	35.7	3.9	2.2	18.2	10.4
China	24.1	35.6	13.0	38.8	4.6	2.6	19.5	11.1
Central Asia	0.7	44.1	2.2	9.2	1.7	-0.5	2.0	5.4
Southern Asia	3.0	34.8	1.4	1.4	-0.5	-0.5	-0.2	2.6
India	2.0	35.3	1.6	0.2	-1.2	-0.1	-0.2	1.7
South-Eastern Asia	17.0	7.6	2.5	16.6	1.3	0.2	7.5	7.6
Western Asia	2.0	7.4	0.9	16.1	2.2	-1.4	0.1	15.4
Americas	0.9	12.3	2.9	19.2	-0.8	-0.2	1.5	18.6
United States of America	0.5	-3.6	1.1	5.8	-5.8	-0.3	-1.6	13.4
South America	2.0	33.4	2.7	31.2	3.8	-0.3	3.9	23.9
Brazil	4.7	57.0	1.1	44.0	11.8	-0.2	4.2	28.1
Oceania	8.2	-30.6	-2.1	7.6	-6.6	-13.5	6.5	22.4
Australia	9.1	-17.4	-1.5	6.9	-6.5	-13.9	6.2	23.0
World	7.0	18.9	3.1	11.3	-0.6	0.2	3.3	8.1

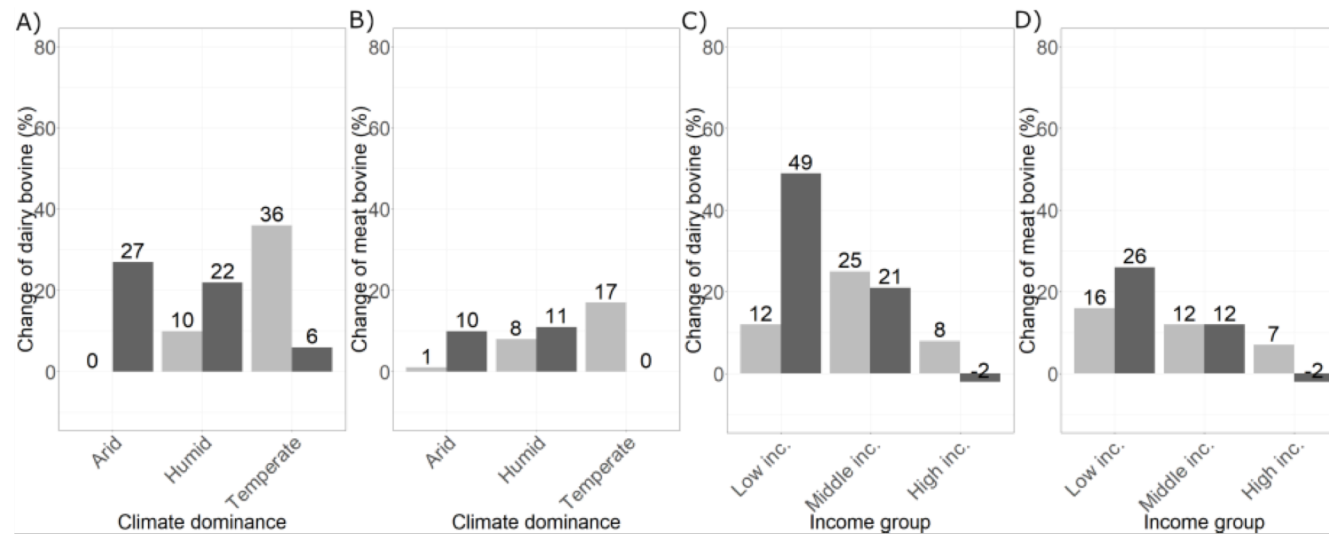
Change in kg/person/year between 1990-2015



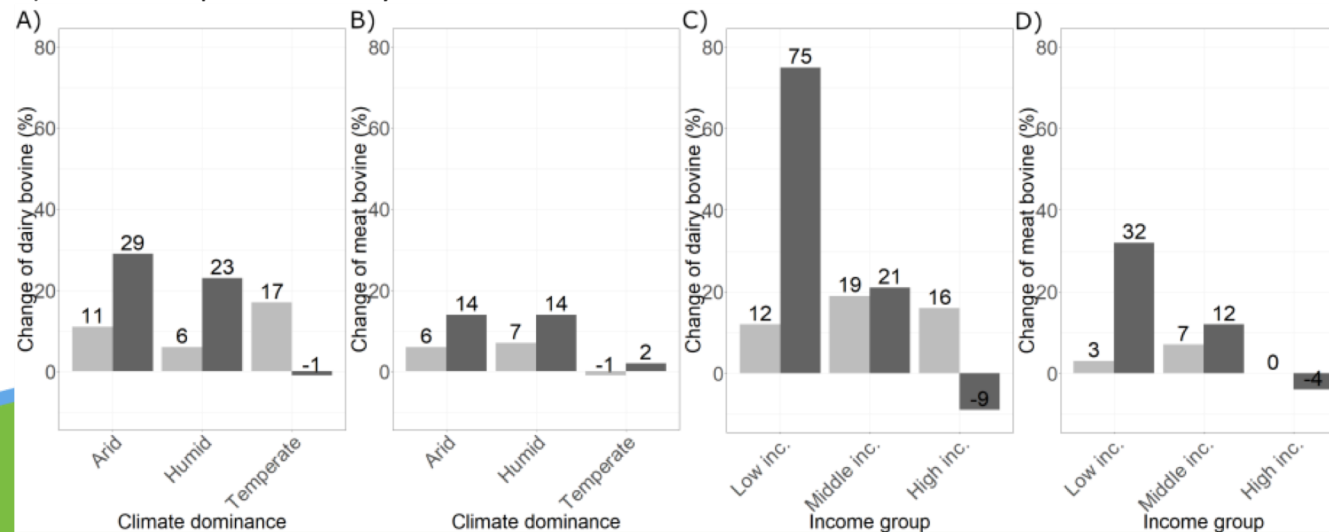
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# Production growth in ruminant meat and milk still driven largely by growth in animal numbers, with a few exceptions



## 2) Mixed crop-livestock systems



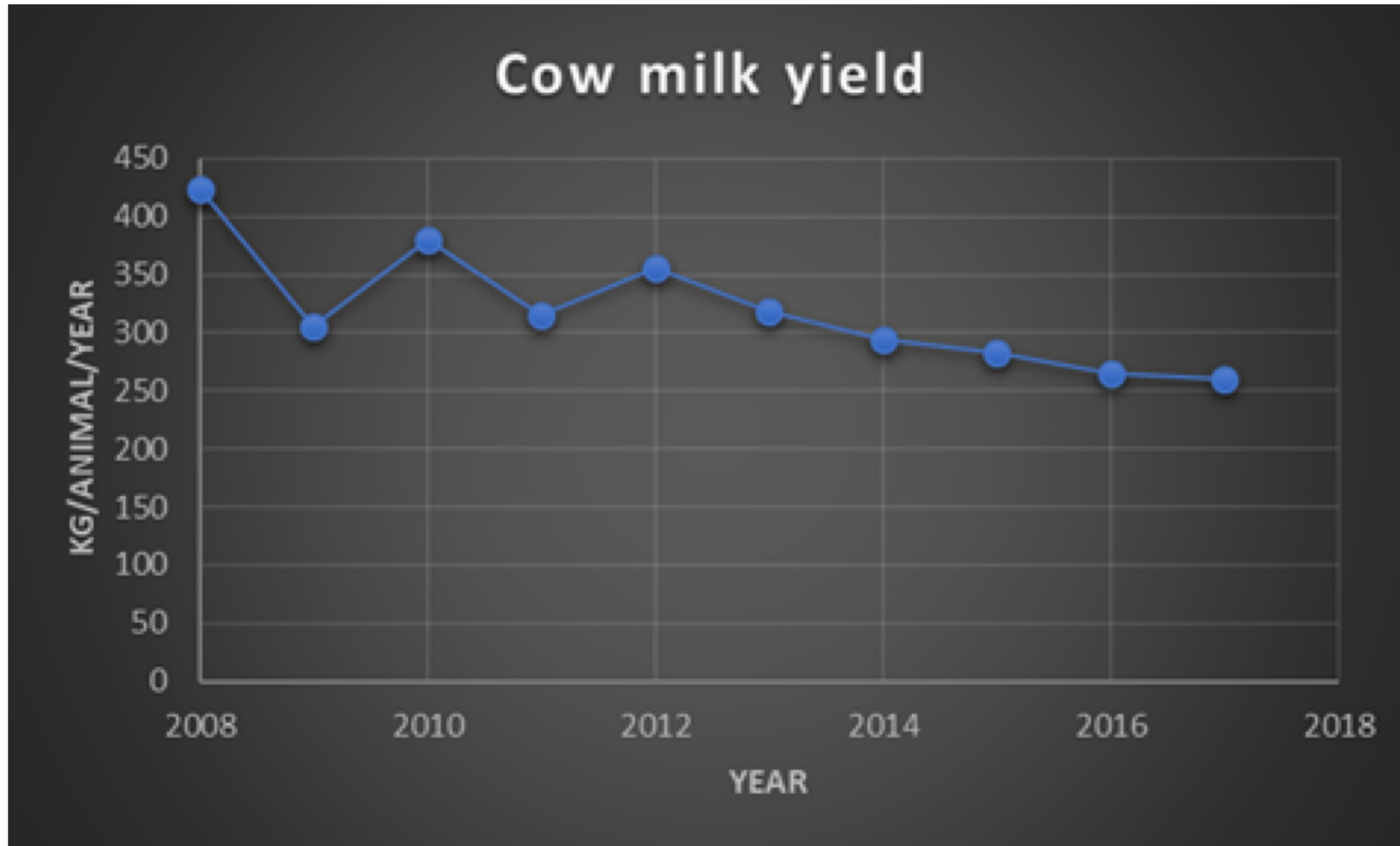
SDGs through agricultural research

■ Bovine productivity ■ Bovine numbers

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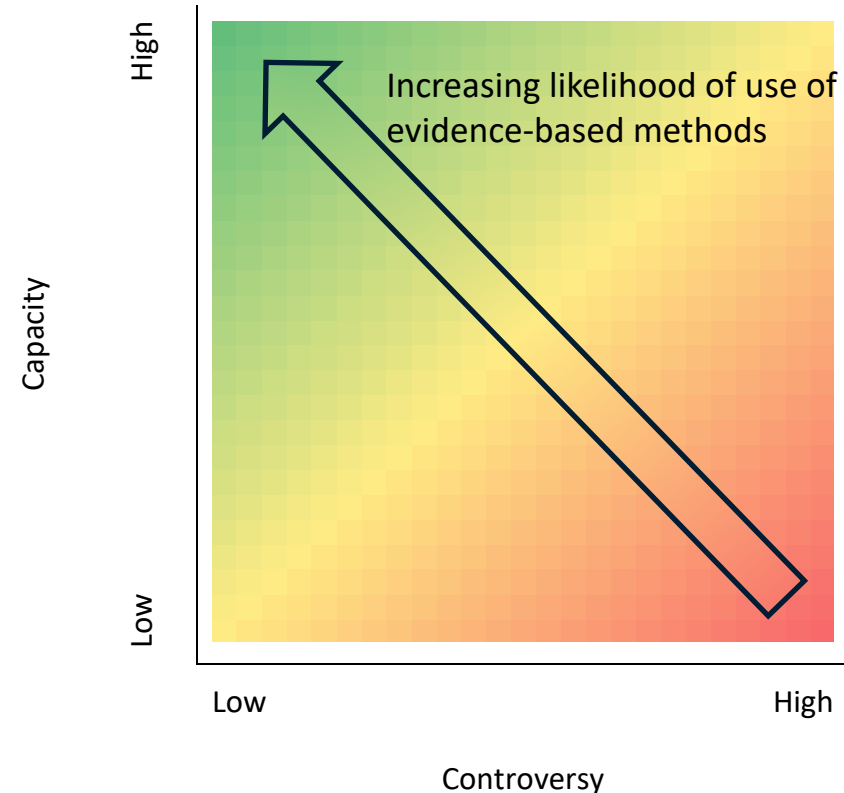
# The reality check Ethiopian milk yields... after more than a decade of investment



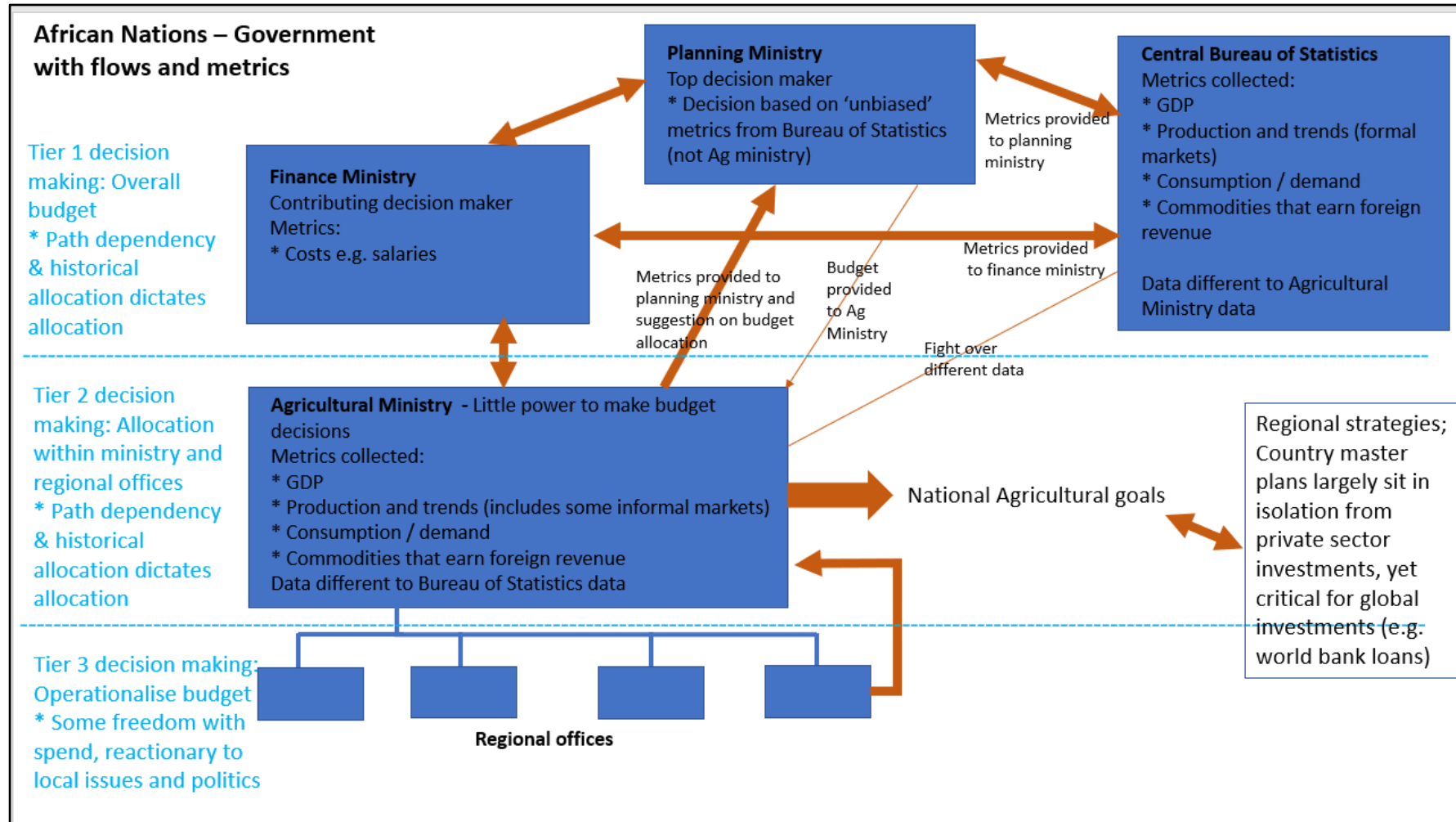
**We cannot put blind faith on data  
improvements and its link to better policy-  
making**

# Data projects: Key considerations

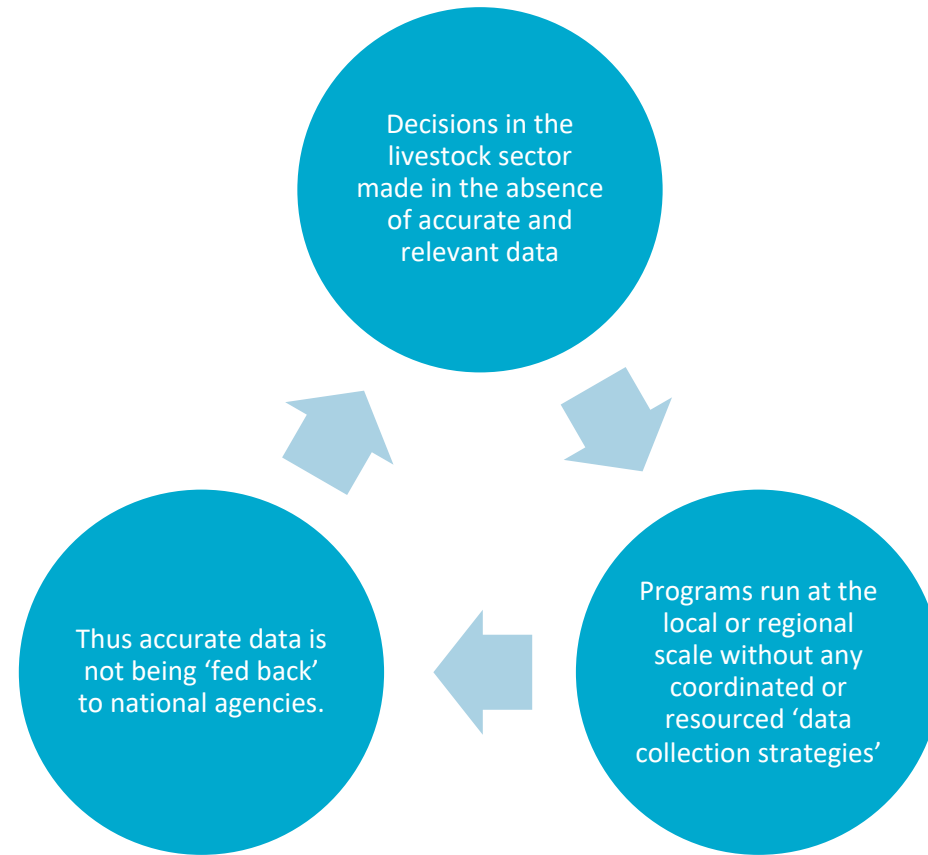
- Decisions not made on a socio-political 'clean slate'
  - Path dependencies, previous investments
  - Limits ability to change budgetary priorities
- Additional data may not change decision making process (for many reasons)
  - Technical capacity to use info
  - Time available to absorb and internalize it
- Spatial, temporal and geographical dimensions
  - Livestock production highly variable
  - Impacts of interventions operate over different time scales
- Trade-offs exist with any new investment – must be comprehensive to minimize negative impacts
- Data collection considerations:
  - Livestock move
  - Life cycles influenced by biology and production system type



# Interview findings: actors map



# Interview findings: the circular conundrum



The 'circular conundrum' means political decision-making can't be informed by 'return on investments' because the data doesn't exist to provide those narratives and evidence.

**Align with the environmental commitments  
of countries and a sustainability agenda**

# The commitment to the Paris Agreement

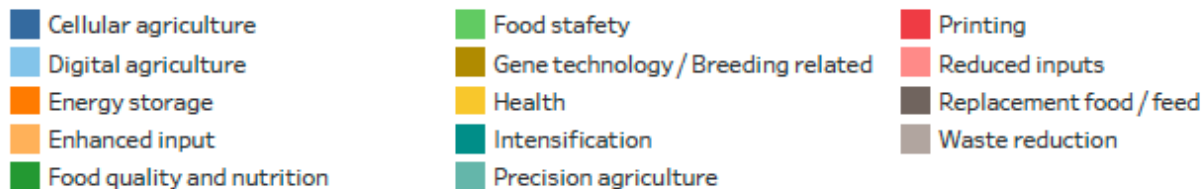
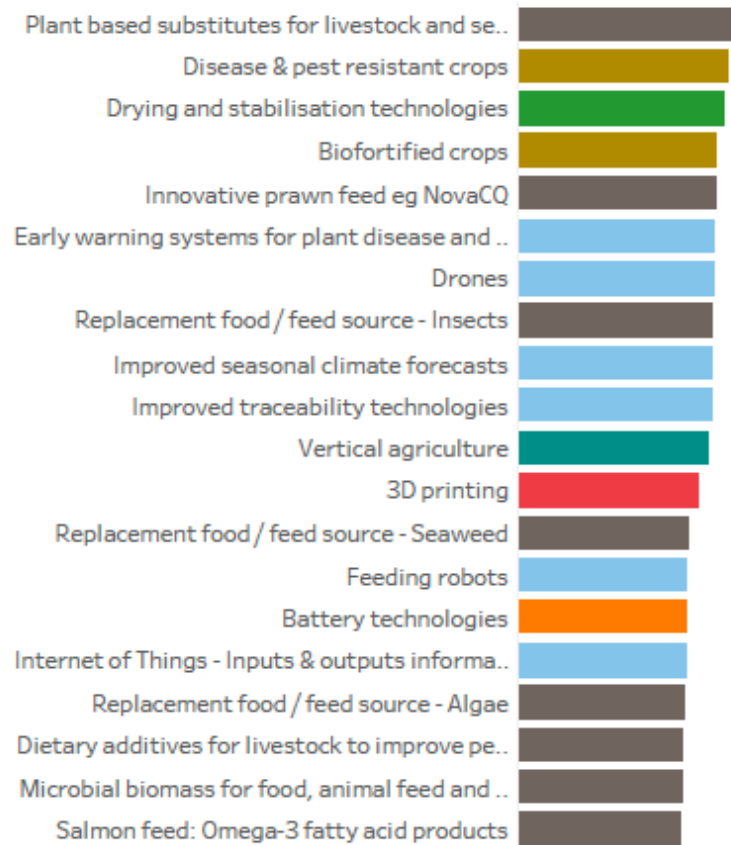
- Ethiopia intends to limit its GHG emissions in 2030 to no more than 145 MtCO<sub>2</sub>e including land-use, land-use change and forestry (LULUCF) (185 MtCO<sub>2</sub>e excluding LULUCF). Compared to a business as usual (BAU) trajectory, limiting emissions to that level equates to a reduction of at least 64% (40% excluding LULUCF). Ethiopia has committed to becoming carbon neutral; however, its Nationally Determined Contribution (NDC) does not specify a target year for the attainment of that goal.

Source: [www.climateactiontracker.org](http://www.climateactiontracker.org)

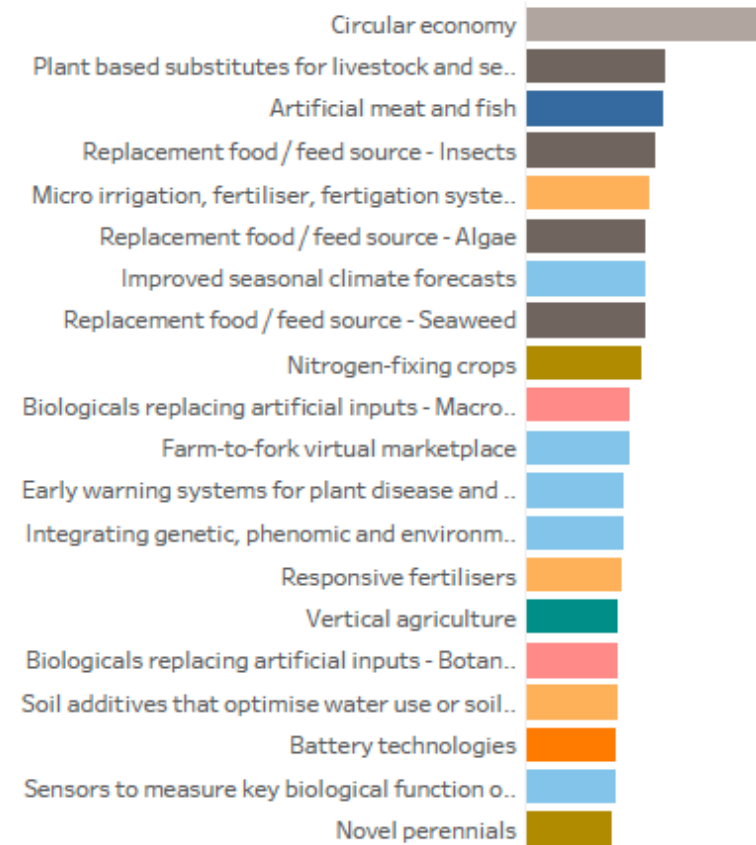
# Disruptive innovation: the next frontier of alternatives

# Future technologies

C) Top Twenty Technologies on Adopt and Readiness



D) Top Twenty Technologies Based on Potential



Herrero et al. Nature Food (accepted)