

The example of prudent antimicrobial use in livestock sectors.

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Context

In the ROADMAP project, 12 living labs (LLs) involved stakeholders from livestock sectors across 7 EU countries and Vietnam to design and experiment strategies to foster prudent antimicrobial use (AMU).

Material and method

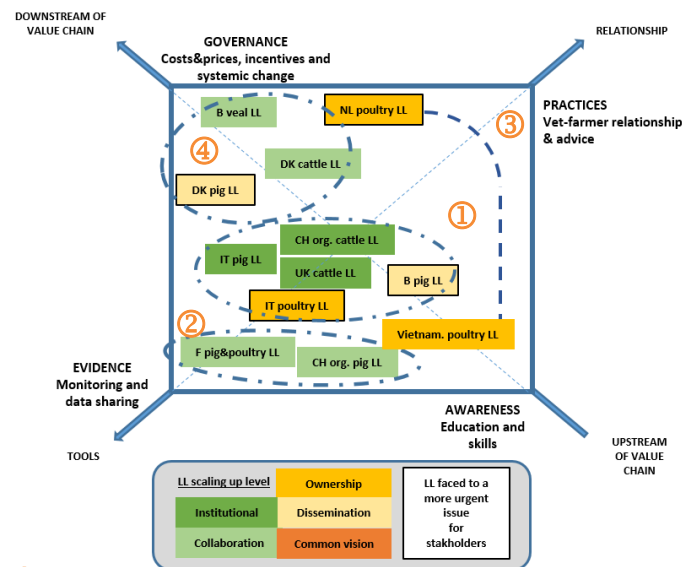
We designed an analysis grid to report on the outcomes of the LLs considering that prudent AMU in livestock value chains requires not only innovations but also transitions pathways. This grid could be of use for further analysis of agrosystem LLs.

- Process of LL: meetings, specific methodologies (such as ex ante impress assessment, FAO methodology, problem tree), experimentations
- Stakeholders involved
- Main debated issues and associated innovations corresponding to FAO progressive management pathway for antimicrobial resistance (AMR)
- End users of innovations
- Enablers and lock-ins
- Scaling up level at the end of the LL

We then designed a typology according with main debated issues and innovations and reached scaling up level, although no bold categorization can be made since stakeholders in all LLs learned from each other about a wide range of issues.

Results

- Most LLs were initiated and facilitated by academics or extension services, whose background and training regarding facilitation differed. LLs consisted in core meetings and working groups or thematic groups called actions labs (AL).
- LLs' stakeholders included mainly upstream value chain (farmers and health advisors), plus industry representatives, pharmaceutical industry (2 cases), administration (8 out of 12), retailer (in one case), NGO (in 3 cases).
- Four main issues were debated: 1. education and skills, 2. monitoring indicators and tools (apps), steering and data sharing among value chain (among which benchmarking), 3. advice and vet-farmer relationship, and 4. socio-economic frame. Two cattle LLs promoted empowerment of farm workers (UK calf rearers, DK foreign workers). Compromises between AMU and animal welfare were widely debated. In most cases, trials were focused on issues the LLs' participants have the ability to solve.
- End users for LLs' innovations are mainly at farm level (farmers and advisors) - for 8 LLs out of 12. 4 LLs provided strategies aimed at the whole value chain.
- In 4 LLs, a more urgent issue kept stakeholders away from AMU (socio-economic crisis, climate change issues, work load and means).
- In these 4 cases, scaling up level is lower.



Typology

- A first type gathers 5 LLs with a very large row of stakeholders, including livestock and pharmaceutical industry, retailer, administration and NGO. Almost every issue is covered. In 4 cases, LLs foster already existing institutional links and tools (standard administration visits on organic Swiss cattle farms, implementation of EU policies in Italian pig sector, vet benchmarking in Italian poultry sector, inclusion of calf rearers in AMU agency in UK)
- In the second profile, LLs had less types of stakeholders and an issue more focused on monitoring (building a set of health and welfare AMU indicators in French pig and poultry LL, benchmarking and designing eartags in Swiss pig LL). Monitoring was clearly meant as a coordination tool in the value chain. Collaboration between stakeholders will last.
- Poultry LLs in type 3 focused on either awareness (Vietnamese LL) or coaching advice approaches (Dutch LL). Participants from the whole value chain took ownership on actions and pointed out economic & systemic barriers to be overcome.
- LLs in the fourth profile were mainly interested in systemic changes they could not solve themselves, although most levels of value chain participated in the LL. However, in Denmark, one LL documented disagreements between stakeholders (pig sector) whereas another suggested new regulation (cattle sector). Belgian stakeholders look for fundings for further research.

This typology suggests that not all transition issues can be experimented easily in LLs, but that LLs undoubtedly foster collaboration.

