

Three priority areas for the RMT



The task of the RMT livestock housing contributes generally towards improving livestock farms' technical and economic performance, optimizing livestock housing so that it is consistent with farming systems of the future. Thus, in its work programme for 2014-2018, the RMT has chosen **three PRIORITY AREAS** in which it encourages reflection without constraints in the analysis and proposal of solutions

Considering that the improvement of farmers' working conditions and animal health/welfare are key concerns for the livestock housings of tomorrow and are thus included systematically in all prospective thinking, the RMT has defined its three priorities as follows:

1. **“reasonable costs priority”**, seeking first and foremost to optimize the costs incurred by buildings,
on the one hand, by **controlling investment and operating costs related to buildings**, with key financial savings resulting, for example, from;
 - clearly defined building specifications,
 - the choice of location consistent with the valorization/adaptation of any existing one,
 - a search for optimal working conditions and functionalities of the building.
 - rationalized building techniques (choice and implementation of materials),
 - energy savings and/or renewable energy production opportunities;
 and on the other, through **productivity savings or efficiencies** that are sometimes difficult to quantify, and which are enabled through better working conditions, better living conditions for animals and less impact on the environment.

Key words, strong ideas ⁽¹⁾:

Operating costs - Investment costs - Energy (savings and production) - Design optimization - Building techniques - Building use and operation

2. **“environment priority”**, seeking first and foremost to **control/reduce the environmental impact of livestock housing during its construction and use**. These buildings focus on respecting the environment broadly speaking: landscape, preservation of the quantity and quality of resources (water, air, energy, GHG, building materials,...), reduction of disturbances (noise, odours), link with the territory, adaptability and versatility with possible recycling for another use, dismantling or re-use in the event of a shift in livestock farming activities. Approaches to green building guide the choices for this type of buildings, both during their design/construction, and their operation and until their dismantling, and necessarily places them in an economic logic.

Key words, strong ideas ⁽¹⁾:

Green building, life cycle analysis - Gaseous emissions, air protection - Effluent management, water protection - Landscape integration, links to the regions

(1) + key words “working conditions”, “yield of animals”, “animal health and welfare” = common to the three priorities

3. **“precision priority”**, through **precision livestock farming** applied to livestock housing via the coordinated integration of **automation, sensors and information and communication technologies**, to:

- enable new features for the livestock management (environment management, food management) and automatic remote monitoring/visualization (individual or group of animals).
- optimize the technical performance of the premises (ADG, IC,...),
- improve the working conditions of the livestock farmer (ergonomics, safety, laboriousness),
- contribute to the modernity and the attractiveness of the profession
- ensure animal welfare, animal health, product biosafety and animal traceability, providing the tools to adapt to the impact of climate change on the rules of conduct for livestock farming and the use of buildings (for an atmosphere suitable for all seasons).

The RMT Livestock housing: let's build the future will be interested only in precision equipment having a direct impact on the design and/or construction and/or organization and/or use of livestock housing, either for the actual installation of such equipment or for the management of the information it generates. Reflections will concern the equipment placed on the animal, equipment, man, the building itself, or connected to products coming from the housing (milk, eggs, manure,...) and require a specific arrangement of the livestock housing (or annex).

Key words, strong ideas ⁽¹⁾:

Adaptation to climate change - Attractiveness of the profession - Automation and sensors - Ergonomics, housing safety - Managing livestock farming activities in housings.

Three multi-sector work groups (horses, pigs, cattle and poultry) encouraged by the RMT, intend to put forward **virtual prototypes for the livestock housing of tomorrow**. These prototypes will present technical solutions related to the design, construction, equipment, and operating modes,... each responding to one of the three priorities.

Basis

**KEY
DATES**

2014: launch of the working groups

Nov 2015: Internal seminar 3 work groups + suppliers-equipment manufacturers

Feb 2017: international symposium (presentation of a 1st version of housing prototype)

End 2017 Internal seminar 3 work groups +

The reflections and works carried out by the RMT on the livestock housing of tomorrow will necessarily come under the existing regulatory framework and seek to improve the technical and economic performance of livestock farms, focusing, in the three priorities, on the working conditions of farmers and employees and on the health and well-being of the animals. For each of the 3 priority areas, it will thus be possible to explore ideas, not necessarily feasible today or in the near future, without any constraints imposed by the other areas. For example, the economic profitability of the buildings, which inevitably influences building projects, will be explored and optimized in the “reasonable costs priority” area (action 1.1), but will not constitute a limit for the other themes (in prospective thinking).

Valorisation in French livestock farms

In livestock farms, the housing of tomorrow will come from a compromise of the three complementary thematic areas (priorities) worked on by the RMT. The choices will ultimately fall with the project leaders, to build or develop buildings adapted to the needs of their farms and their aspirations.

