**Topics for implementations**

This is a list of topics to cover in future implementations of SuMSO. These implementations will allow to finalize the development of the core ontological module of SuMSO. Further implementations will subsequentially establish additional modules to address meat systems relate to other animals, such as chicken or pigs as well as alternative option to traditional meat such as novel meats. Implementations will equally dela with interrelations among those systems and other food systems.

SuMSO core ontological module must be implemented by:

* Covering classes addressing additional meat system activities. + Extending the related axiomatization.
* Covering classes addressing additional meat system components and stakeholders.
* Covering additional “perspective” classes corresponding to other meat system components and stakeholders.
* Covering classes addressing activity temporal and spatial-temporal regions.
* Covering classes addressing meat system (and related components) spatial regions.
* Covering meat systems structures, such as restaurants, farms, etc.
* Deepening the characterization of agency in activity.
* Revising meat system component-perspective axiomatization with regards to meat systems activity inputs and outputs.
* Extending the representation of values.
* Extending the representation of product, by-product and waste roles.
* Improving worker-company role hierarchization.
* Characterizing the influence of meat system activities and other processes on meat system behaviors and properties.
* Extending the representation of meat supply chain activities to other animals as well as to types of cows, cow age and contribution to meat supply chain activities.
* Deepening the representation of certifications, certification issuance processes, and claims.
* Deepening the representation of meat as an animal-deriving item and as a food.
* Including more classes to represent cow meat.
* Revising the “organism” hierarchy to extend and integrate biological classification and common language classification.
* Implementing the disambiguation of the term “animal”.
* Including additional organization/worker roles.
* Deepening the representation of company and organization participation in meat systems processes.
* Deepening the representation of the relation between workers and corresponding companies.
* Including classes to represent machine system workers.
* Deepening the representation of /distinction between living organisms and carcasses.
* Improving the meat system activity axiomatization with regard to well-being. + doing the same for value and meat systems properties, such as resilience and stability.
* Extending the representation of plans, objectives, and related information with regard to meat system activities.
* Evaluating the possibility to include reference to meat system actions.
* Extending the representation of meat systems interactions.
* Covering additional interaction classes, including those encompassing companies as participants.
* Extending the representation of meat systems sub-activities.
* Providing additional sub-classes to deepen the ontology representation.
* Validating with subject matter experts the representation of supply chains and supply chain activities.
* Discussing whether supply chains are parts of complex systems and/or exist across complex systems. + discussing how to represent these features.
* Discussing the possible relation between corresponding company and worker roles.
* Addressing system granularity (in SCO and making the corresponding revisions in SuMSO).
* Aligning IAO/OBI - CCO - SuMSO representation of plans, plan specifications, and directive information entity.
* Discussing on meat system components perspectives. Do all meat system components have perspectives?
* Discussing organisms as complex systems other than components od some complex (meat) systems.
* Expanding the representation of certain meat system components, such as manure or forage, including, for instance, corresponding roles or functions.
* Implementing the representation of the relationship between meat system organisms and related anatomical structures.
* Revising the usage of the term “organism” with regard to organism material.
* Implementing the representation of organism material and pieces with regard to parthood and derivation from organisms.