
**Electronic data interchange between
information systems in agriculture —
Agricultural data element dictionary —**

**Part 3:
Pig farming**

iTeh STANDARD PREVIEW

*Échange de données informatisé entre systèmes d'information en
agriculture — Dictionnaire de données agricoles —*

Partie 3: Élevage porcin

ISO 11788-3:2000

<https://standards.iteh.ai/catalog/standards/sist/a5b1b700-5ff5-447e-b6ea-95d1c004bf7a/iso-11788-3-2000>



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this part of ISO 11788 may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Standard ISO 11788-3 was prepared by Technical Committee ISO/TC 23, *Tractors and machinery for agriculture and forestry*, Subcommittee SC 19, *Agricultural electronics*.

ISO 11788 consists of the following parts, under the general title *Electronic data interchange between information systems in agriculture — Agricultural data element dictionary*:

— Part 1: *General description*

— Part 2: *Dairy farming* <https://standards.iteh.ai/catalog/standards/sist/a5b1b700-5ff5-447e-b6ea-95d1c004bf7a/iso-11788-3-2000>

— Part 3: *Pig farming*

— Part 4: *Poultry farming*

— Part 5: *Non-animal stationary applications*

Annexes A and B form a normative part of this part of ISO 11788.

Introduction

Stand-alone computers on farms require that the same data be manually entered into and collected from each computer. This laborious task becomes superfluous when the computers are interconnected and able to communicate with each other automatically to share and exchange information. Information exchange means data transport between the management computer on one side and each process computer on the other.

An agricultural data element dictionary (ADED) consists of data elements that can be used in the agricultural sector to exchange data electronically. ADED is closely linked to agricultural data interchange syntax (ADIS), also used in the agricultural sector to exchange data electronically. The two in combination make electronic data interchange possible.

In a data element dictionary all data elements are described in a unique way. Each element is uniquely identified by a data dictionary number (DD number). Data dictionaries for data exchange between management computers and process computers may be subsets of larger data dictionaries.

The standardization of on-farm data interchange between management computer and stationary process computers consists of an ADIS and an ADED. The ADIS is described in ISO 11787. A general description of the ADED is given in ISO 11788-1; the other parts of ISO 11788 describe data dictionaries for different fields of application.

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Electronic data interchange between information systems in agriculture — Agricultural data element dictionary —

Part 3: Pig farming

1 Scope

This part of ISO 11788 specifies how the agricultural data element dictionary (ADED) can be used in on-farm data exchange between management systems and stationary computers in pig farming. Stationary computers in pig farming are, for example, feeding computers and animal weighing computers.

This part of ISO 11788 describes the data elements and entities in the field of pig farming in accordance with the rules given in ISO 11788-1 and ISO 11788-2.

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2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of ISO 11788. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of ISO 11788 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 11788-1:1997, *Electronic data interchange between information systems in agriculture — Agricultural data element dictionary — Part 1: General description.*

ISO 11788-2:2000, *Electronic data interchange between information systems in agriculture — Agricultural data element dictionary — Part 2: Dairy farming.*

3 Terms and definitions

For the purposes of this part of ISO 11788, the terms and definitions given in ISO 11788-1 and the following apply.

3.1

entity relationship diagram

visual presentation of the possible relationships between entities

4 Abbreviated terms

ADED Agricultural Data Element Dictionary

ADIS Agricultural Data Interchange Syntax

AN Alphanumeric

C	Conditional
DD	Data Dictionary
EDI	Electronic Data Interchange
ERD	Entity Relationship Diagram
K	Key data element
M	Mandatory
N	Numeric
O	Optional
Obl	Obligation

5 ADED pig farming

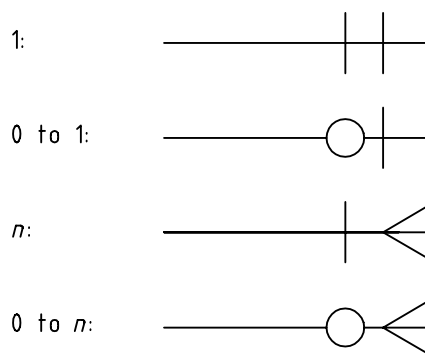
5.1 Code sets

In this part of ISO 11788, code sets are added to the data element. When a data element has a code set, it may be a normative or an informative code set. A normative code set is specified in an International Standard; an informative code set only gives an example of possible values.

When there is agreement on the data element description, but the values of the code set differ between countries, the code set must be defined as national. The national code set can be found in the national data dictionary.

5.2 Entity relationship diagram

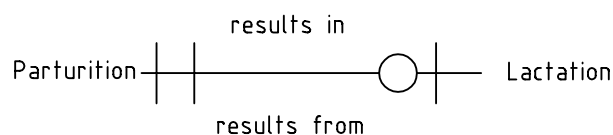
The entity relationship diagrams given in Figure 2 and Figure 3 show the entity types (rectangles) and their relationship types (lines with certain characteristics). The relationship type between two entity types can have the characteristics/cardinalities shown in Figure 1.



where $n \geq 1$

Figure 1 — Relationships between entity types

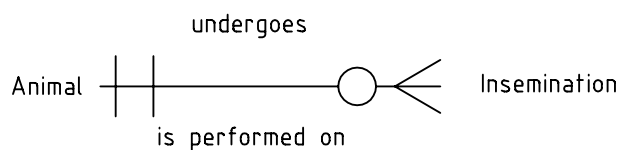
EXAMPLE 1



The cardinalities show that one occurrence of an entity type has a relationship to zero or one occurrence of an other entity type. The relationship names have to be read clockwise.

In this case: A parturition may result in a new lactation. The other way around: a lactation results from one parturition. The relationship to parturition is used for identifying the lactation.

EXAMPLE 2



The cardinalities show that one occurrence of an entity type has a relationship to zero or more occurrences of another entity type.

In this case: An animal may undergo several inseminations, an insemination is performed on one animal. The relationship to the animal is used for identifying the insemination.

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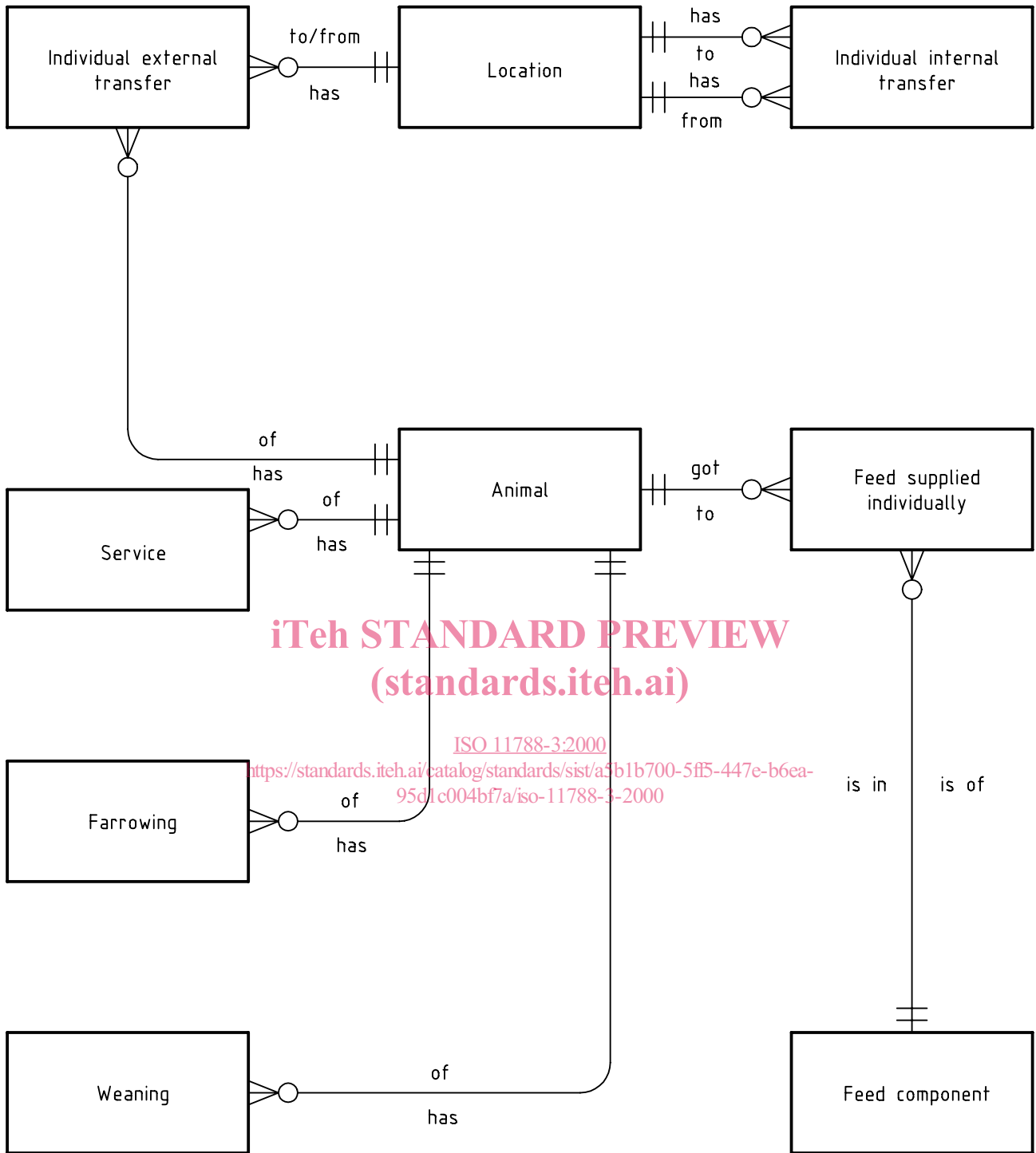
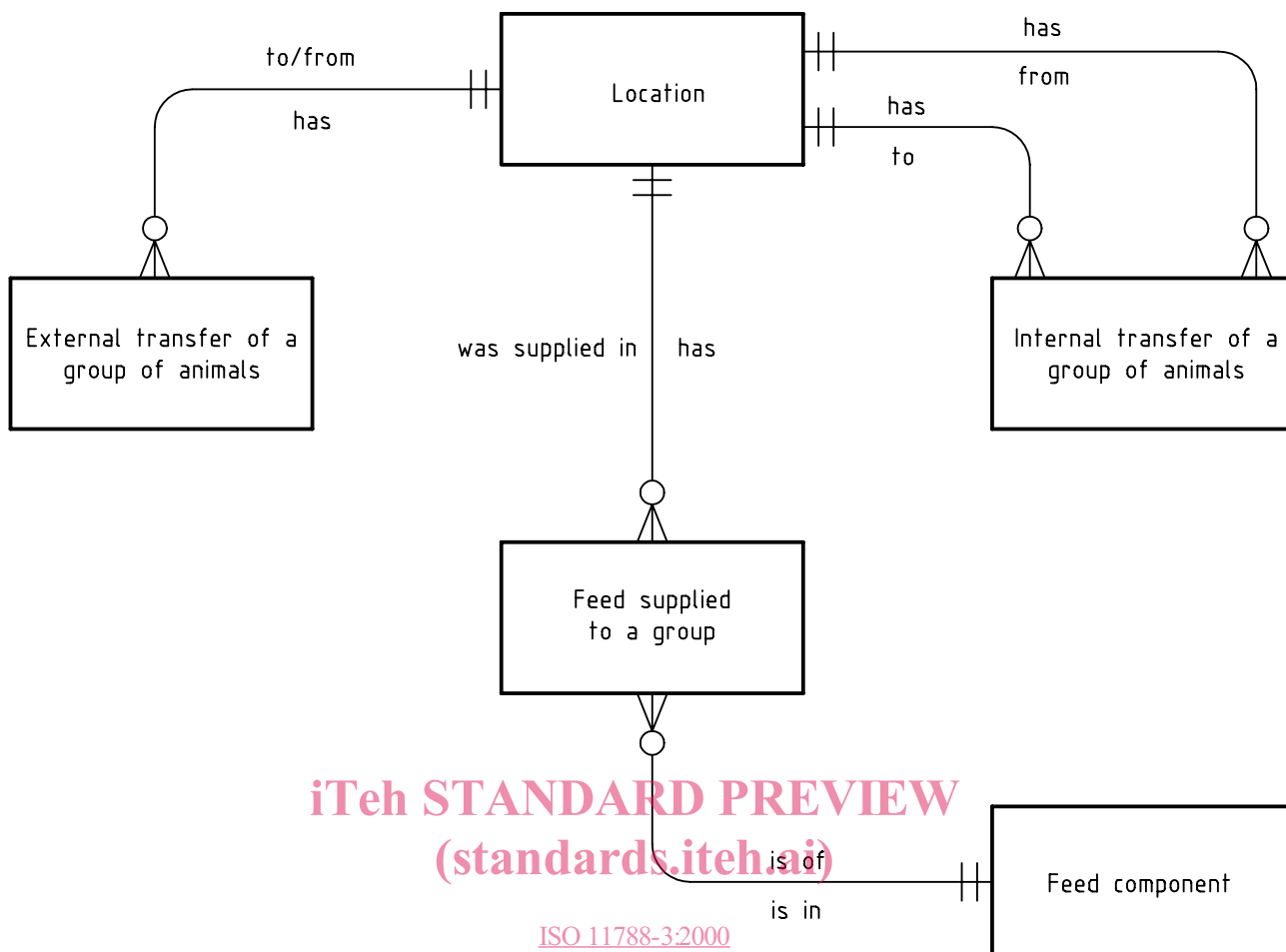


Figure 2 — Entity relationship diagram for individual identification



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Figure 3 — Entity relationship diagram for no individual identification

5.3 Entities

The entities for the field of pig farming are given in annex A.

5.4 Data elements

The data elements for the field of pig farming are given in annex B.

Annex A (normative)

Entities

990012 Feed component

In this entity the data elements give information on the major characteristics of a feed component (a feed component could be a mix of several feed components)

O	ADED-nr	Name
K	900099	Feed component number
K	900100	Feed lot number
	900101	Feed type number
	900102	Feed component name
M	900103	Dry matter content
	900104	Energy type
	900105	Energy per kilogram
	900106	Crude protein per kilogram
	900107	Phosphorus per kilogram
	900108	Calcium per kilogram
	900109	Lysine per kilogram

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990013 Feed supplied individually

In this entity the data elements give information about the feeding of an individually identified animal, during a certain period

O	ADED-nr	Name
K	900070	Animal number (see ISO 11788-2)
K	900099	Feed component number
K	900100	Feed lot number
K	900110	Feeding end date
K	900111	Feeding end time
	900112	Feeding start date
	900113	Feeding start time
	900114	Distribution type
	900115	Measure type
	900116	Total feed amount

990014 Feed supplied to a group

In this entity the data elements give information about the feeding of a group of animals during a certain period

O	ADED-nr	Name
K	900117	Location number
K	900118	Location type
K	900119	Process computer number
K	900099	Feed component number
K	900100	Feed lot number
K	900110	Feeding end date
K	900111	Feeding end time
	900112	Feeding start date
	900113	Feeding start time
	900114	Distribution type
	900115	Measure type
	900116	Total feed amount

990015 Individual external transfer

In this entity the data elements give information about the transfer of an individually identified animal to or from the farm

O	ADED-nr	Name
K	900070	Animal number (see ISO 11788-2) ISO 11788-3:2000
K	900117	Location number https://standards.iteh.ai/catalog/standards/sist/a5b1b700-5ff5-447e-b6ea-95d1c004bf7a/iso-11788-3-2000
K	900118	Location type
K	900119	Process computer number
K	900120	Transfer date
K	900121	Transfer time
	900122	Location direction
	900123	Transfer reason

990016 Individual internal transfer

In this entity the data elements give information about the transfer of an individually identified animal within the farm

O	ADED-nr	Name
K	900070	Animal number (see ISO 11788-2)
K	900124	To-location number
K	900125	To-location type
K	900126	To-process computer number
K	900120	Transfer date
K	900121	Transfer time
	900123	Transfer reason