GLAMUR
Global and local food assessment:
a MUltidimensional performance-based approach

The research leading to these results has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement n° 311778

Grant Agreement no: 311778
Project acronym: GLAMUR
Project title: Global and Local food chain Assessment: a Multidimensional performance-based approach
Call identifier: FP7-KBBE-2012-6-singlestage
Activity code: KBBE.2012.2.5-03: A comparative analysis of global versus local food supply chains

D 3.4 Database of Impacts

The database is **online** available. It can be found at:

- **http://glamur.vsm-hosting.nl/Default.aspx**
- or click on 'Database of impacts' on the GLAMUR website (www.glamur.eu) at the bottom of the page

If you do not have an own username and password you can have a look at the database (but not edit data) by: **Username = guest**
Password = guest

A manual of the database is enclosed as Annex

Due date of deliverable: December 2014
Actual submission date: August 2015

Start date of project: 1 February 2013
Duration: 36 months
Authors: CLM, NL

Project co-funded by the European Commission within the Seventh Framework Programme		
Dissemination Level		
PU	Public	

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Annex to D 3.4 Database of Impacts

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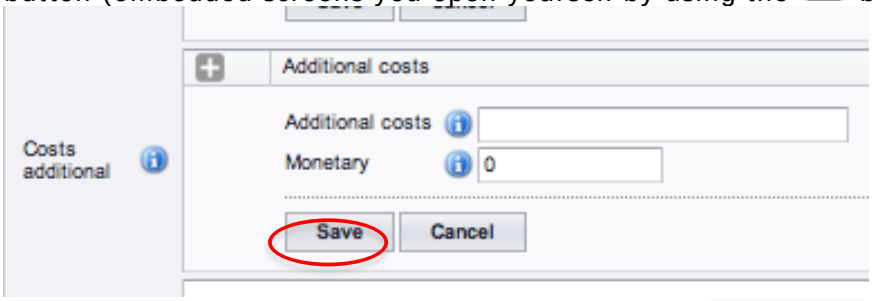
1. General information

The database can be found at:
http://glamur.vsm-hosting.nl/Default.aspx

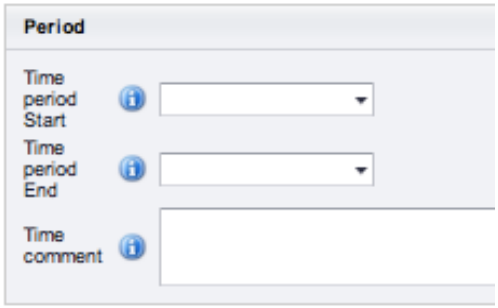
The database is built on the level of a specific case, i.e. a regional or a global product chain. Data are expected to be gathered on this level as well. So information on individual farmers should not be entered in the database. Instead overall values for that case should be used. When it's necessary to add extra data, for instance on individual farm level, this can be done by uploading files (for instance excel data files).

- The shows additional information
- You do not need to fill in all cells. Fill in those where data is available. You can leave cells open.
- To add a new cell press the button
- To edit a cell press the button

Last but not least: after entering information press the Save button!
When entering information in an embedded screen like the one below chose the marked button (embedded screens you open yourself by using the button).



When entering information in a regular field use the Save button on the top or bottom end of your right hand screen. An example of a regular field is shown below.



You can fill out some regular fields before saving. It is not necessary to save after every entry. But remember: re-entering data can be very annoying. [It happened to me quite a few times while writing this manual]

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2. Login

Use the username and password that you received to log in. If you do not have received a username and password you can have a look at the database (but not edit data) by:
Username = guest
Password = guest

Login screen

3. Projects

You see an overview of projects within the database. When you click on the column name, the projects will sort automatically, this makes searching a particular project easier once more projects are entered.

3.1. Adding projects

You can add a project by pressing the button and you can edit a project by pressing the 'pencil' button.[You can also delete a project using the 'X' button. We strongly advise against that.]
You can only edit [and delete] your own projects (i.e. a project that you have added to the database). You can have a look at projects of other partners, but you cannot edit or delete them. If it is necessary for you to edit project data of another project, the administrator of the database (CLM, Carin Rougoor, crougoor@clm.nl) can give you rights to edit the data of this project as well.

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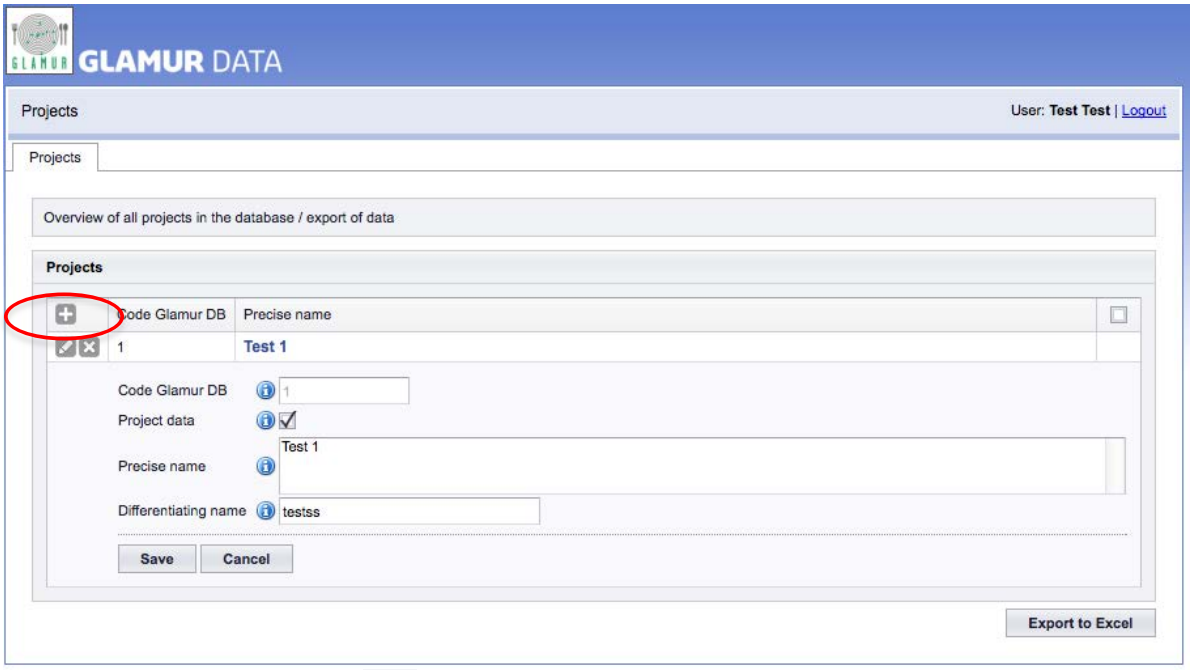


Screenshot after selecting *(new project)*

A project is a specific case, for instance regional pig production in the Netherlands.

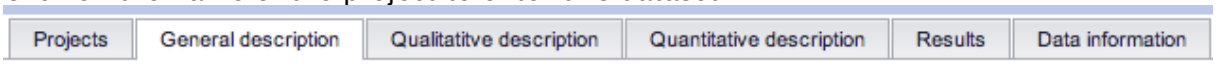
In this screen you can specify the following:

- Code Glamur Database: automatically generated number
- Project data: Select this field when the project data are a result of the GLAMUR project (leave unselected when project data are from an outside source)
- Precise name: see the structure guidelines for precise instructions
- Differentiating name: differentiate generic product names, i.e. brown rice vs. white rice or canned vs. fresh
- If you wish to export the data to excel; tick the box(es) above the button 'Export to Excel' and press 'Export to Excel' in the lower right corner of the screen. If you want to select all projects to download, tick the box on top.

After entering a new project, press the 'save button', otherwise information will be lost.

3.1.1. Viewing or altering an existing project

Click on the name of the project to enter this dataset



On top of the page you see the following pages:

- Projects (see above)
- General description
- Qualitative description
- Quantitative description
- Results
- Data information

The information within these different pages is described below:

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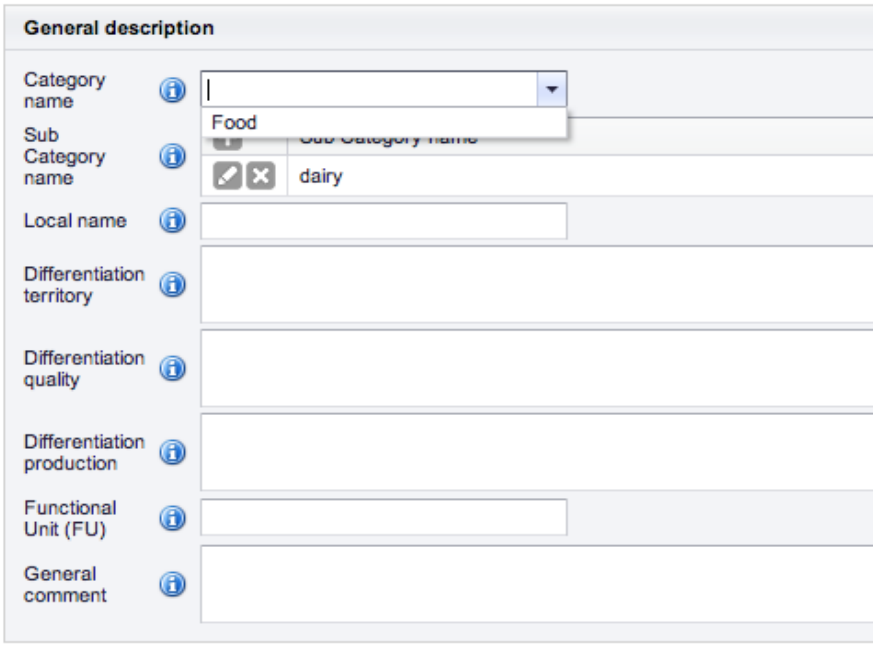
3.2. General description

On this page you can fill in:

- General information on the case (General description)
- The selection criteria for the case (Glamur specific information)
- The supply chain, specifying which parts of the supply chain are included in the analysis (Mapping)
- The time period (Period) and
- Geographical aspects (Geography).

The five subsets are specified below.

3.2.1. General description



In this screen you can specify the following:

- Category name: Categorize the project. Within the GLAMUR project all cases will be of the category 'food'. So, no other possibilities can be selected
- Sub category name: this information can be used to make selections of cases. More than one subcategory can be chosen. Choose at least one, indicating the type of food (meat, fruit, vegetables, dairy, grain). Additionally, you can choose extra categories to give extra information (i.e. organic).
- Local name: local name can be specified in local language
- Differentiation territory: how does the territoriality of the product add to its distinctiveness?
- Differentiation quality: how does the quality of the product add to its distinctiveness?
- Differentiation production: how does the production of the product add to its distinctiveness?
- Functional Unit (FU): give a clear description of the product. For the quantitative assessment this has to be description in detail. Examples of functional unit are: 1 litre of wine, a bread of 400 grams, 1 kg of cured ham.
- General comment: other relevant information can be added here.

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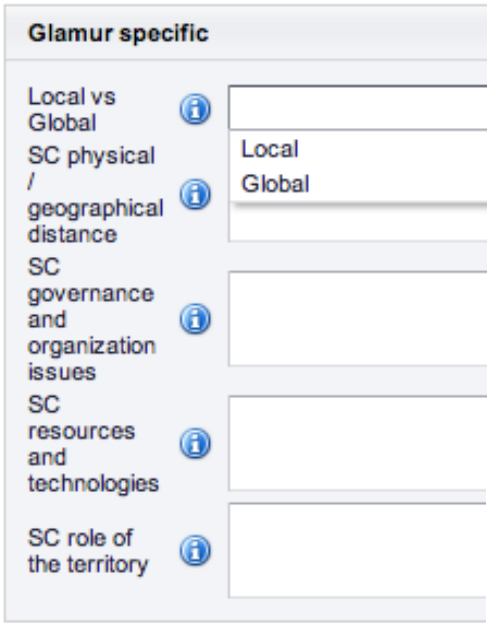
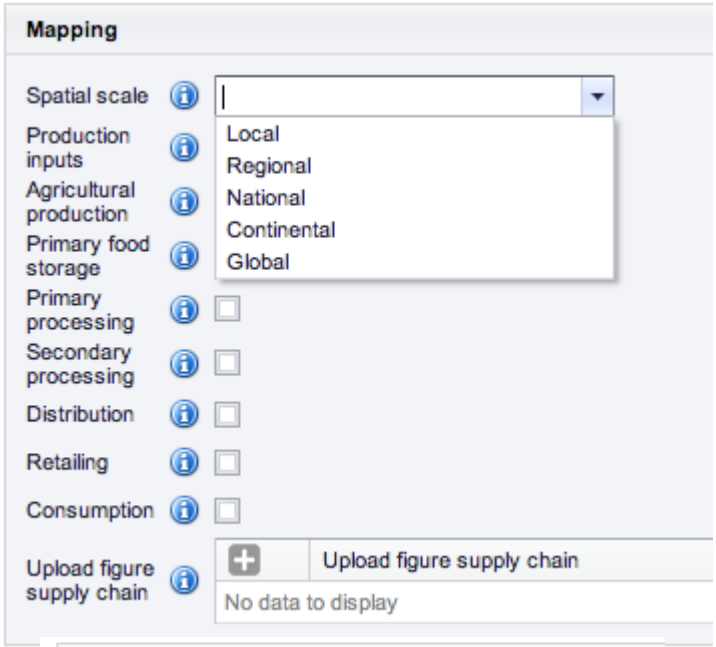
3.2.2. Glamur specific

Here the information regarding selection criteria (distance, governance and organization, resources and technology, role of territority) can be added.



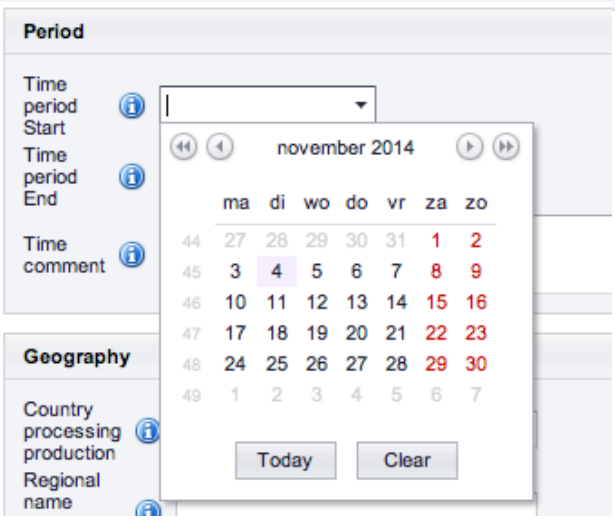
3.2.3. Mapping

Select the spatial scale of the project.
Then tick the boxes of the parts of the supply chain that are included in the project. The last option under 'mapping' allows the user to upload a figure of the supply chain.



3.2.4. Period

Here you can enter the period your data apply on. Enter the starting point in the first box en the endpoint in the second box. The time comment box allows you to give more detailed information on the time period or for instance the temporal validity of the data.



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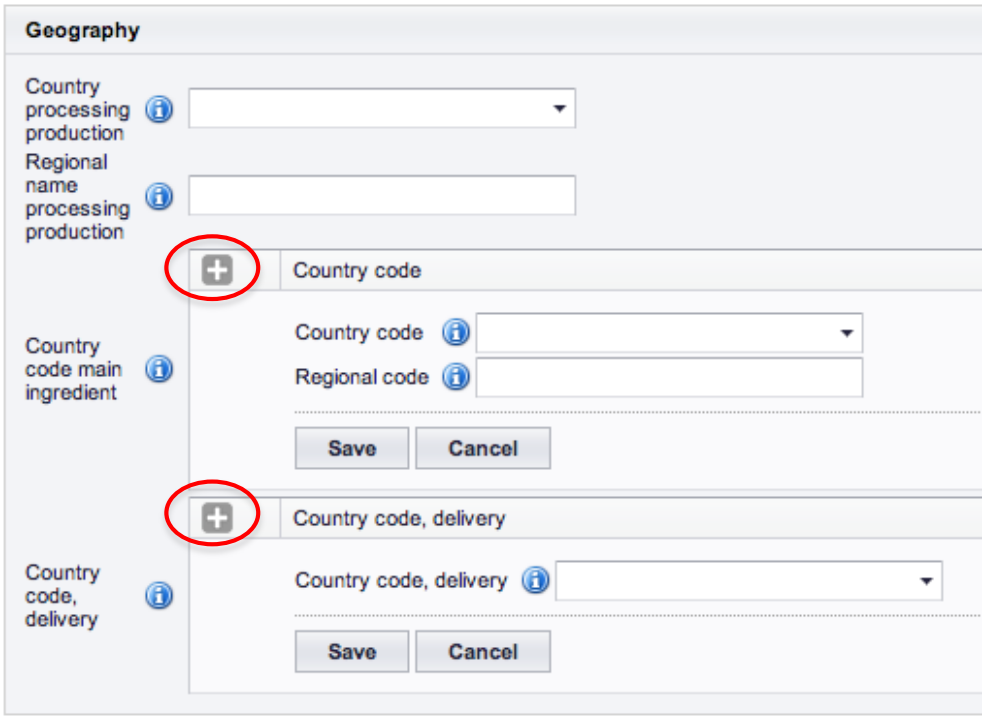
3.2.5. Geography

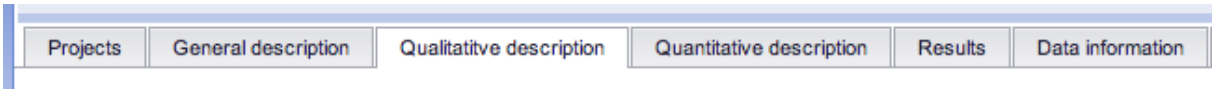
In this field geographical information of the project is specified.
The first field describes the country where the main activity of processing or production of the project takes place. The field for regional name is to be used to specify the region of the country selected before. (Again, the provides a short instruction and example.) Country main ingredient allows you to specify the origin of the main ingredient, in the same manner as the two fields before. In case the country of delivery (end of supply chain) is different from the country of processing/production, this can be indicated here.



Screen 'Geography' after pressing the circled buttons.

Always press Save ***to be sure the data is stored.***

3.3. Qualitative description



This page is based on the setup of the quick scan spring 2014. The following data of the quick scan can be entered here:

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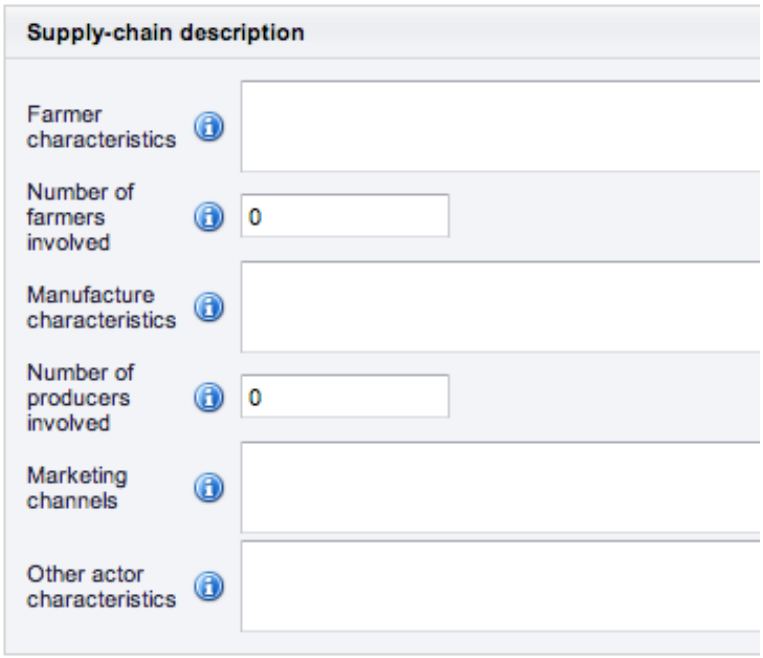
3.3.1. Supply-chain description



Hover the selection arrow over the ⓘ to get further information on what to enter here. (It's pretty straight forward.)

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3.3.2. Supply-chain analysis

Describe the power relations of the supply chain, i.e. collective organization. The ⓘ provides extra information and/or examples of how to interpret each field.

The Quick scan document can be uploaded using the ⊞ button first.

3.3.3. Respondents

You can enter names of respondents, people you have interviewed for the case study. Underneath the name of the respondent you can give more information on the respondent (function, position in the chain) and you can upload the interview report. This is only possible AFTER you entered the name of the respondent AND pressed the Save button. Only then the faded options shown in the picture become available.

So entering a respondent name requires the following steps:

1. Select the ⊞ button in front of 'Name'.
2. Type in the name of the respondent.
3. Press Save.

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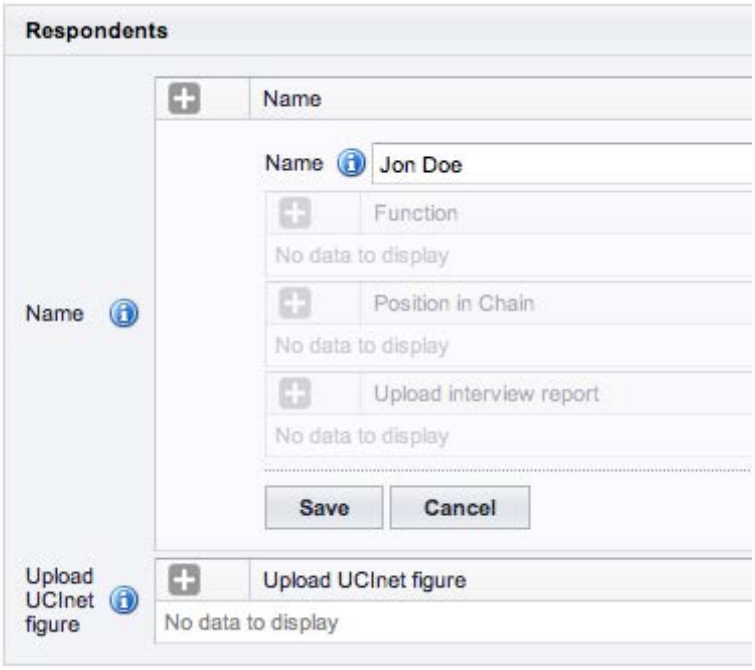
4. Press to change the entry of your respondent.
5. Press to unfold the options 'Function'; 'Position in Chain' and 'Upload interview report'.
6. Now add information concerning Function, Position in Chain and possibly upload the interview report.



Respondents BEFORE saving Jon Doe

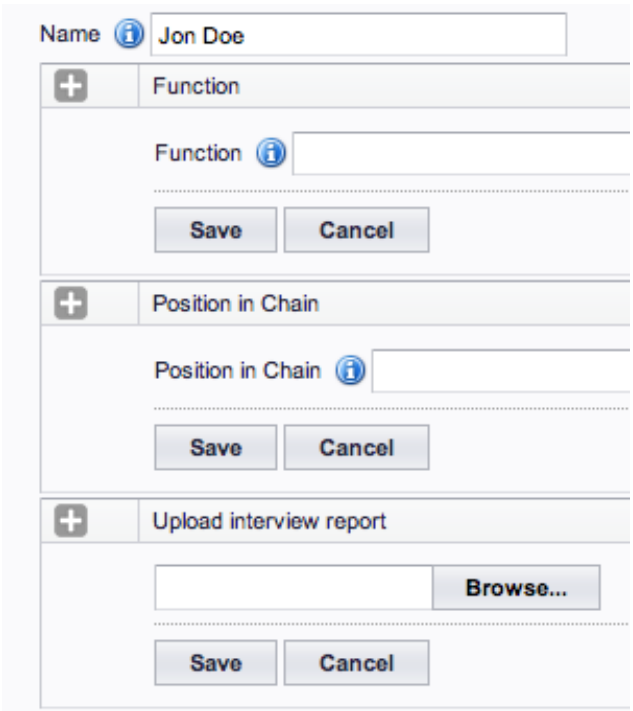


Figure after saving Jon Doe with the three options unfolded

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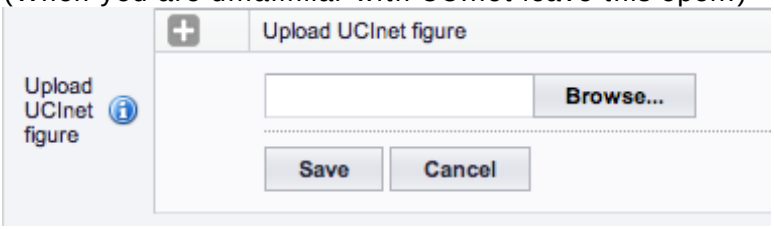
The last option of the Respondents window is to upload a UCInet figure. This is a figure visualize the social connections among actors involved. The specialized software can be attained here or copy the following link into your browser:
https://sites.google.com/site/ucinetsoftware/home
(When you are unfamiliar with UCInet leave this open.)



AFTER ENTERING INFORMATION ON THE SUPPLY CHAIN DISCRIPTION, THE SUPPLY-CHAIN ANALYSIS AND THE RESPONDENTS DO PRESS THE Save BUTTON IN THE LOWER RIGHT CORNER OF THE SCREEN. To be safe press the button on the lower right corner on a regular basis, because after a certain period of inactivity on the site, you will be automatically logged out.

Then move on to the quantitative description of your project.

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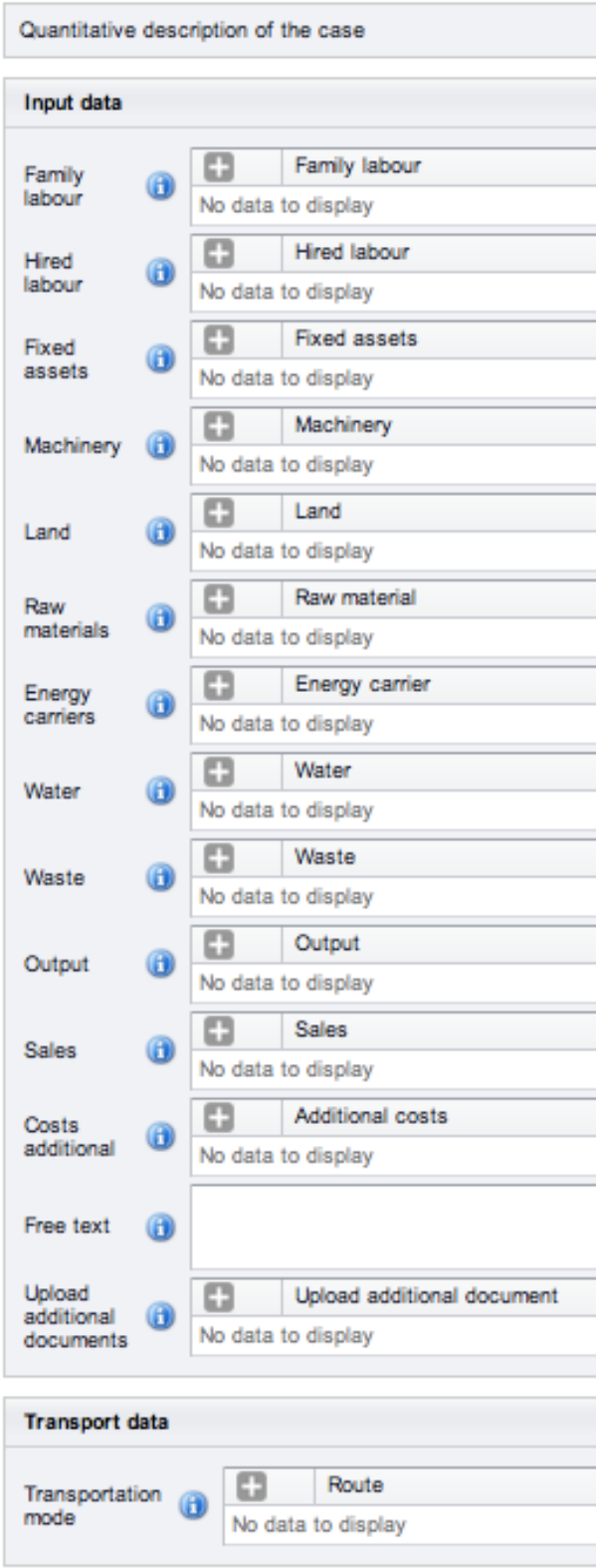
3.4. Quantitative description

The window Quantitative description consists of two sub-screens. The first screen is to collect al quantitative input data. The second collects transport data. Quantitative input data are labour (family hired), fixed assets, machinery, land, raw materials, energy carriers (such as diesel electricity) water, waste, output, sales, additional costs, free text and the option upload additional documents.

At first sight this may appear to be a page quickly filled in but after opening all embedded windows all necessary details show.



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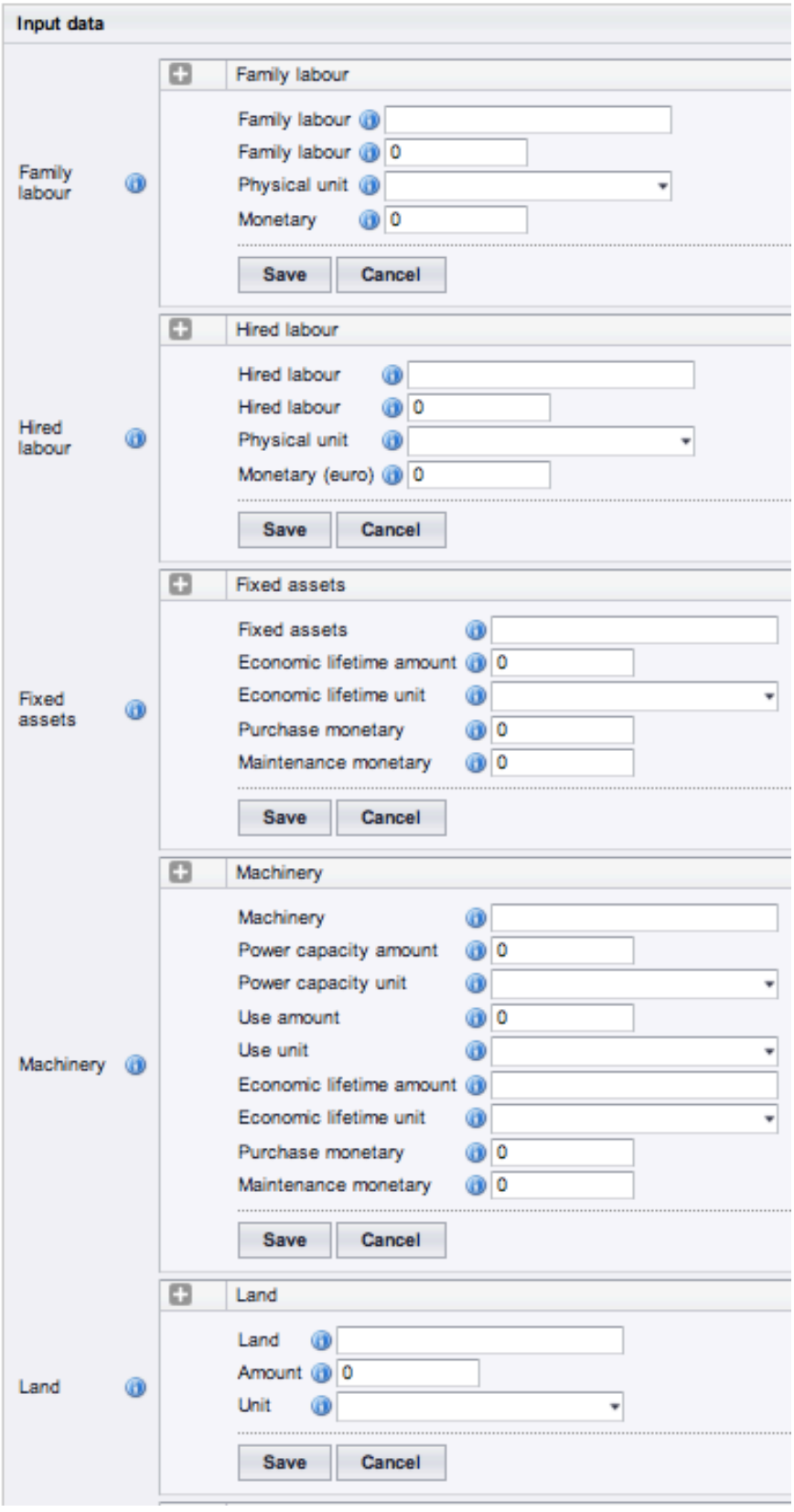
Quantitative input data are subdivided into Family labour, hired labour, fixed assets, machinery, land, ….



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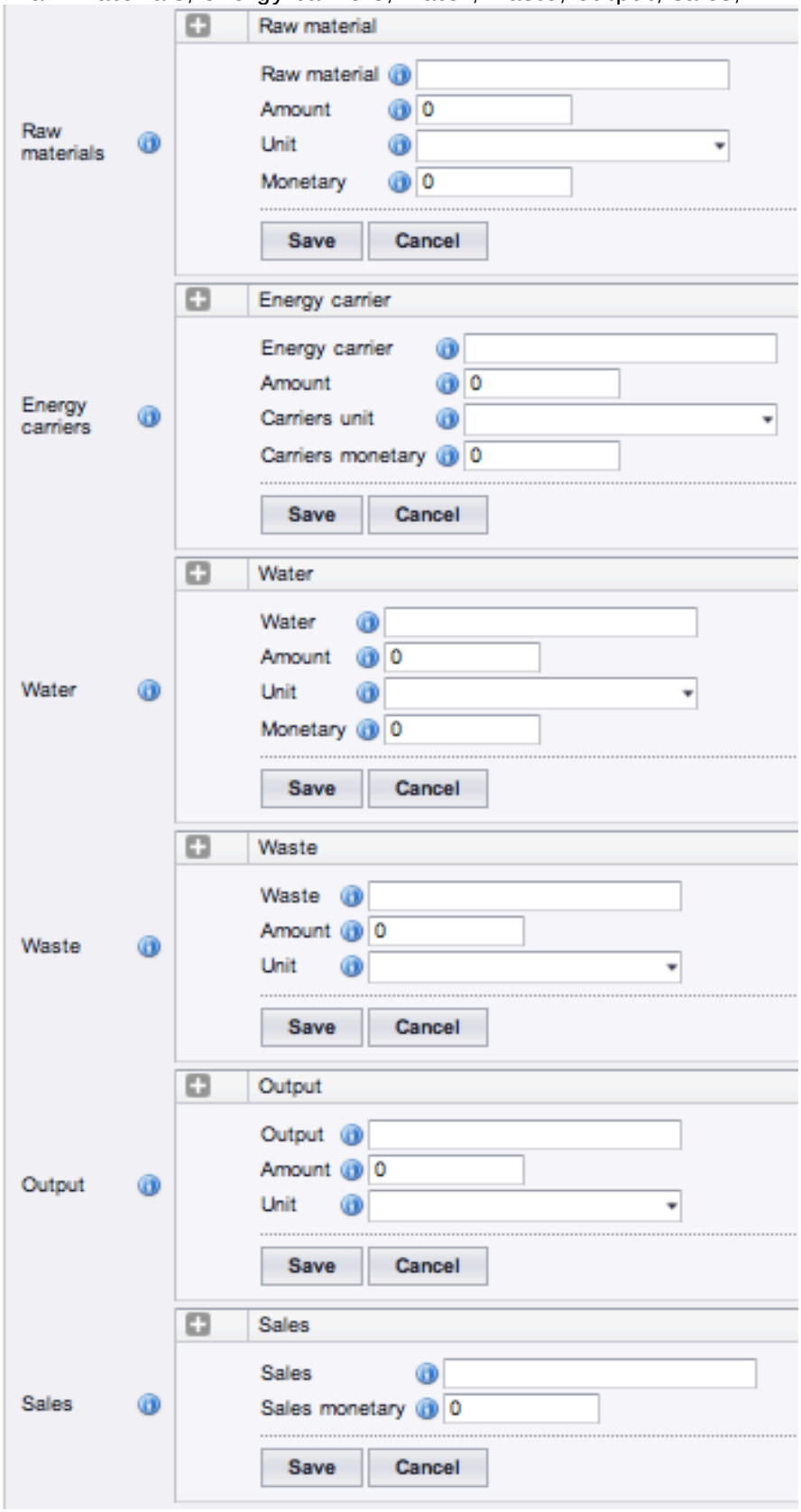
… raw materials, energy carriers, water, waste, output, sales, …



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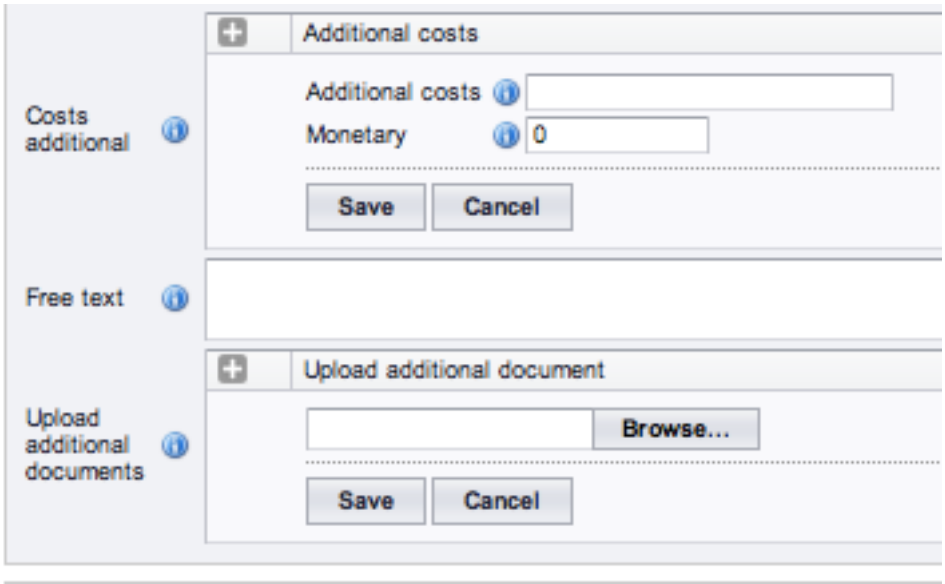
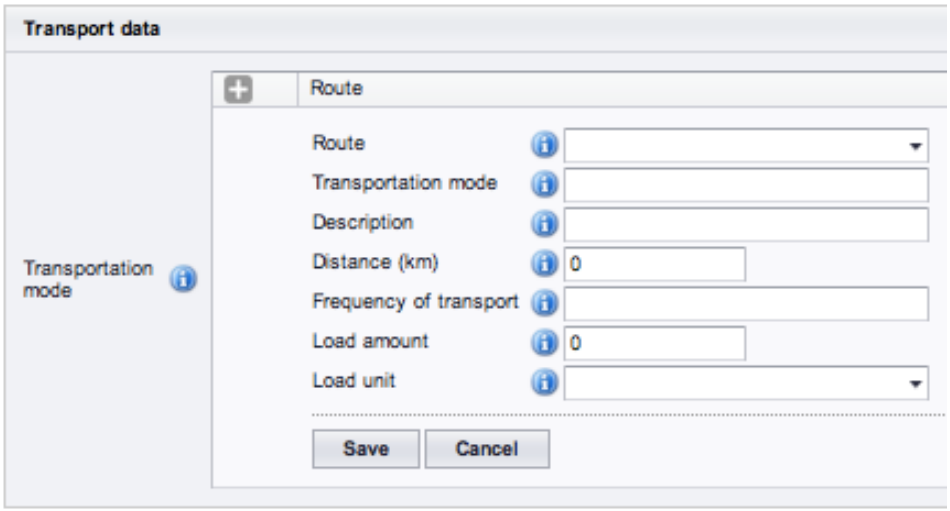
… additional costs, free text and the option to upload additional documents.
The Free text should be used to state otherwise uncovered costs or data concerning the project or additional information.
.



The second sub screen allows entering quantitative transport data.



Always press Save ***to be sure the data is stored.***

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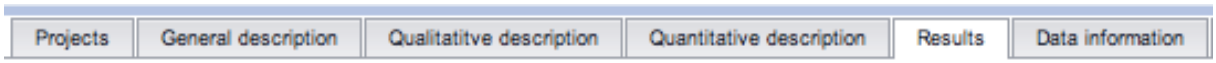
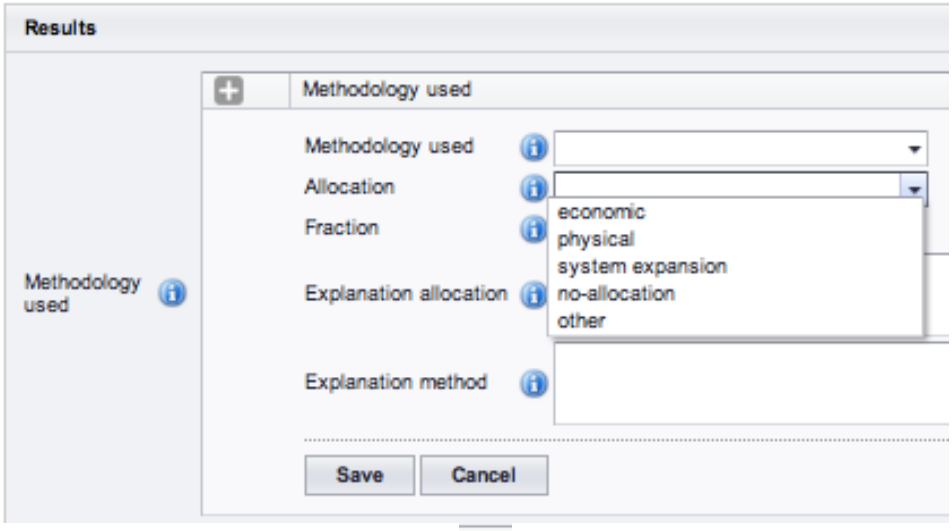
3.5. Results



Within this worksheet you can choose:

- Methodology that is used.
- Allocation methodology that is used
- Fraction of the emissions that are allocated to the product, due to this allocation methodology
- Explain why this allocation method is chosen and
- Describe the method in further detail.



Methodology screen after pressing

Attributes: all attributes that were defined in WP2 are mentioned here.
Choose an indicator (NB: be aware that the indicator has to be an indicator for this specific attribute[1]. The first capitals of the name of the indicator is the abbreviation of the attribute).
You can choose out a complete list of indicators (alphabetically ordered by the abbreviation of the attributes).
Be sure you use the correct unit for the specific indicator.

[1] See the appendix for an overview of attributes and related indicators and the specific unit for the indicators. This list is based on the

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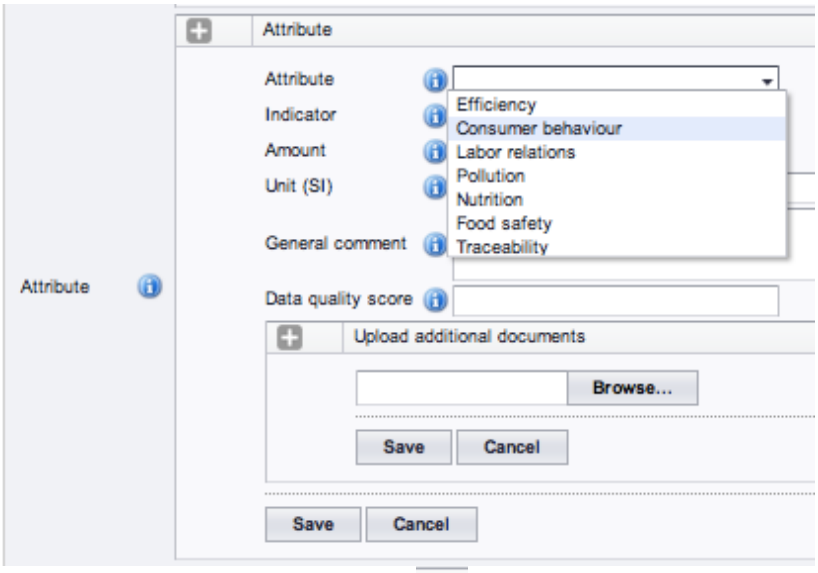
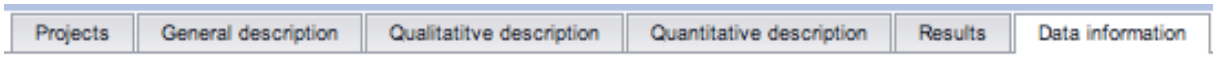


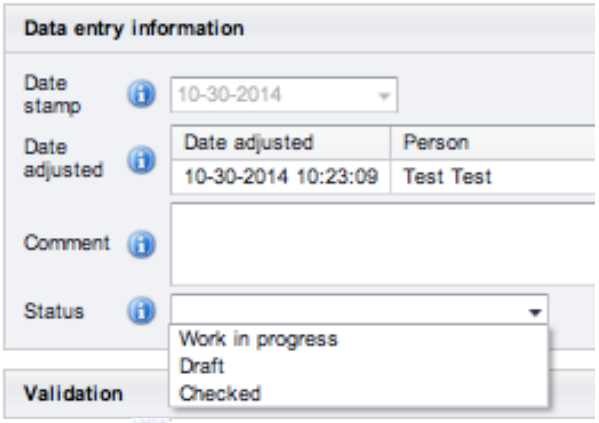
Attribute screen after pressing

Again the provides further information and examples of what information to enter where.

3.6. Data information



The sheet data information collects information on the origin and background of the dataset. There is also space for stating the progress of validation and who conducted the validation.



Again the provides further information and examples of what information to enter where.

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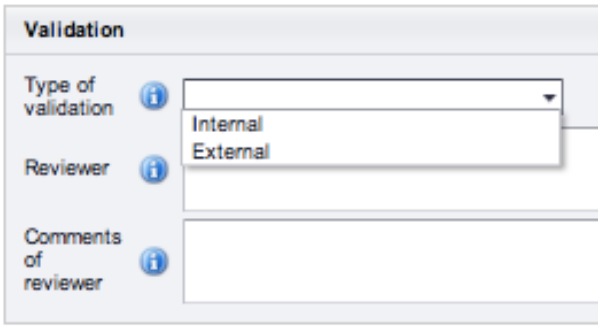

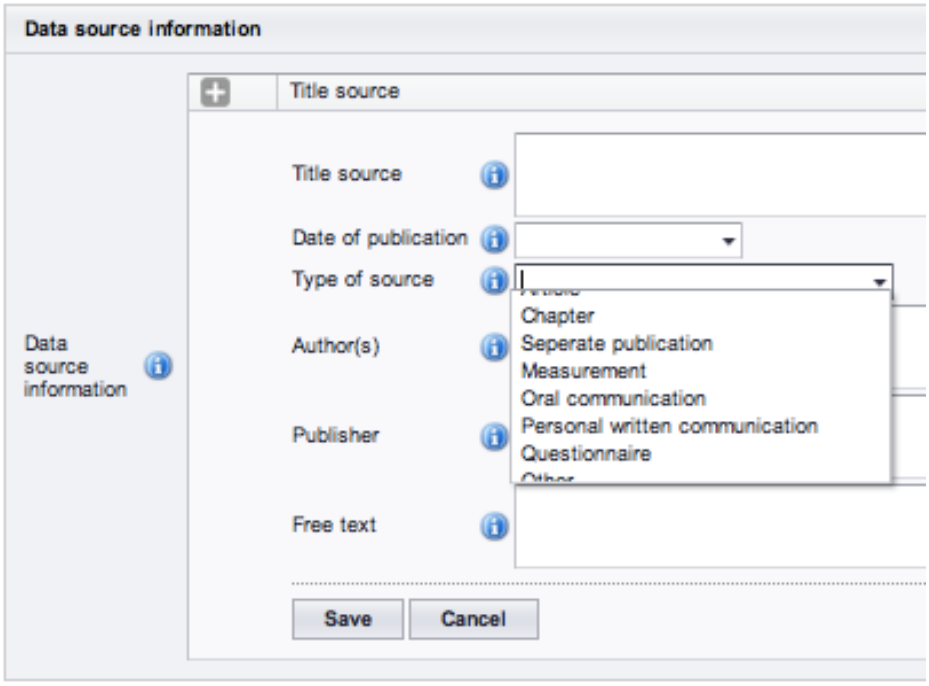

Data source information screen after pressing .

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Appendix: Overview of attributes and related indicators

Index	Name indicator	Definition	Unit
Attribute: **Creation and distribution of added value (ADD)**			
1	ADD-farmer to retail	Average annual price obtained by farmer/average annual price paid by consumer	%
2	ADD-value added farm	(Revenues minus nonfactor costs) / kg	Euro/kg
3	ADD-value added processing	(Revenues minus nonfactor costs) / kg	Euro/kg
4	ADD-value added supply chain	(Revenues minus nonfactor costs) / kg	Euro/kg
5	ADD-share of farm in total	Value added at farm level/Total value added	%
6	ADD-share of processing in total	Value added at processing level/Total value added	%
7	ADD-differentiation	Price at retail level/average price at retail level	%
Attribute: **Affordability (AFF)**			
8	AFF-Consumer price	Average annual consumer sales price per kg of a product	Euro/kg
9	AFF-consumption	Average annual consumption in kg or ton	tons
10	AFF-price perception	Ordinal scale ranging from 0 (very expensive) to 4 (affordable)	Ordinal
Attribute: **Animal Welfare (AW)**			
11	AW-animal density	cows/ha	Number/hectare
12	AW-lifetime cows	After how many lactations do you send cows to the slaughter? (years)	Years
13	AW-time pasture	How many days a year do the cows go out in pasture ?	days/year
Attribute: **Biodiversity (BIOD)**			
14	BIOD-agrobiodiversity	Indicator for the number of crops or cultivars	Ordinal
15	BIOD-diversity production	Diversity of productions, share of production area with diverse crop rotations or integrated management	Ordinal
16	BIOD-locally adapted varieties	Standard commercial varieties only (1); current practice includes deliberate use of varieties adapted to local conditions to assist biodiversity (2); current practice includes deliberate use of heritage/traditional varieties as part of planned biodiversity measures (3)	Ordinal
17	BIOD-conservation practices	Practices and schemes applied to preserve surrounding flora and fauna	Ordinal

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Index	Name	Definition	Unit
Attribute: **Consumer behavior (CONS)**			
18	CONS-Consumer use	For what purpose is the product purchased?	Nominal
19	CONS-taste	How do consumers rate the taste of cheese(s)?	Ordinal
20	CONS-Convenience	What part does 'convenience' play in cheese purchasing decisions?	Ordinal
21	CONS-willingness to pay	How does 'willingness to pay' for cheese differ between different cheese types?	Ordinal
Attribute: **Contribution to economic development (ECON)**			
22	ECON-regional workforce	Share of workforce coming from the region	%
23	ECON-hired/family labour	Hired labour/family labour at farm stage	%
24	ECON-employment/land	Total employment/total land	Number/ha
25	ECON-employment/output	Total employment/total physical output	Number/kg
26	ECON-total value added	Revenues minus nonfactor costs for entire chain	Euro
27	ECON-land productivity (value added)	Value added/land	Euro/ha
28	ECON-labour productivity	Value added/employment	Euro/number
29	ECON-productivity per kg	Value added/physical output	Euro/kg
Attribute: **Efficiency and resource use (EFF)**			
30	EFF-labour productivity	Kg/labour units at farm stage	kg/annual work unit (AWU)
31	EFF-land productivity	Kg/land at farm stage	kg/ha
32	EFF-water use	M3 water/kg product	m3/kg
33	EFF-water management		ordinal
34	EFF-total FEU farm	Use of direct and indirect fossil energy at farm stage per land unit. Direct fossil energy use includes fuel use for machinery; indirect fossil energy includes fossil energy use for the production of fertilizers and pesticides.	MJ/ha
35	EFF-total FEU kg product	Use of direct and indirect fossil energy in the total chain per kilogram of product. Direct fossil energy use includes fuel use for transport and machinery; indirect fossil energy includes fossil energy use for the production of fertilizers, pesticides and electricity	MJ/kg
36	EFF-direct energy use farm	Consumption of electricity, natural gas and liquid fuels	kWh
37	EFF-material waste	?	
38	EFF-processing eff	liters of milk necessary to produce a kilo of cheese	
39	EFF-soil improvement	as proportion of applied practices listed in questions	%

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Index	Name	Definition	Unit
Attribute: **Governance (GOV)**			
40	GOV-grievance	Stakeholder access to fair grievance procedures.	ordinal
41	GOV-conflict	Resolved conflicts of interests between stakeholders	Ordinal
42	GOV-legitimacy	Enterprise's compliance to the law	Ordinal
43	GOV-Civic responsibility	This indicator illustrates the relations of most powerful actors of food chains with laws and civic schemes protecting rights of the weakest food chain actors.	Ordinal
44	GOV-free consent	Indicator addresses consent achieved between the big enterprises and the community.	Ordinal
45	GOV-trust based internal relations	Level of trust-based relations between chain actors, based on (1) absence of conflicts, (2) trust among chain partners, (3) continuity of chain relations	Ordinal
46	GOV-trust based external relations	Level of trust-based external relationships based on chain partners' capacity to mobilise support from (1) social movements), (2) citizens and (3) policy actors	Ordinal
47	GOV- self governance capacity	Self-governance capacity in terms of creation of distinctiveness	Ordinal
48	GOV-chain based value governance	Overall value governance characteristics conform the typology of Gereffi et al. (2005)	Ordinal
Attribute: **Information and Communication (I&C)**			
49	I&C-availability		ordinal
50	I&C-product labelling	Audit against legally required code in the country, variance to the code reported (SAFA)	ordinal
51	I&C-stakeholders		ordinal
Attribute: **Labour relations (LABOUR)**			
52	LABOUR-Wage	% workers who receive at least minimum wage	%
53	LABOUR-freedom	Evaluation of employees possibilities to associate and bargain	SAFA – ordinal
54	LABOUR-employment	% of workers having signed a legally binding work contract	%
55	LABOUR-health	Do employees have health coverage and access to medical care?	SAFA – ordinal

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56	LABOUR-quality of life	Primary producers, small-scale producers and employees in enterprises of all scales have the right to a quality of life that affords time to spend with family and for recreation, adequate rest from work, overtime that is voluntary, and educational opportunity for themselves and their immediate families.	SAFA – ordinal
57	LABOUR-capacity development	Do employees have access to capacity development	SAFA – ordinal
Attribute: **Nutrition (NUTR)**			
58	NUTR-salt	Percentage weight per 100 g	%
59	NUTR-fat	Percentage weight per 100 g	%
60	NUTR-fat types	Ratio of saturated/unsaturated and omega	
61	NUTR-calcium	Calcium content in mg per g product (=g/kg)	g/kg
Attribute: **Pollution (POLL)**			
62	POLL-GWP farm	Global Warming potential: GHG emissions (kg CO2-eq) at farm level per kg product	kg/kg
63	POLL-GWP processing	GHG emissions (kg CO2-eq) at processing level per kg product	kg/kg
64	POLL-GWP distribution	GHG emissions (kg CO2-eq) at distribution level per kg product	kg/kg
65	POLL-GWP per kg product	Total GHG emissions (CO2-eq) per kg product	kg/kg
66	POLL-GHG mitigation	sum the practices applied/ total n° of practices good to reduce GHG emissions	%
67	POLL-toxicity ha	Toxicity per ha	Environmental Impact (EIQ)/ha
68	POLL-toxicity kg	Toxicity per kg	Environmental Impact (EIQ)/kg
69	POLL-Eutro.Potential kg	Eutrophication (PO4) per kg	kg/kg
70	POLL-Acid.Potential kg	Acidification (SO2-eq) per kg	kg/kg
Attribute: **Resilience (RESI)**			
71	RESI-Use of antibiotics	Ordinal scale: level 1 (very low use), level 2 (some use), 3 (significant use)	
72	RESI-Farm level price volatility	Price volatility of the input and output markets of relevance for pork production, defined as the max delta added value per kg live weight per year over the periode 2009-2013	Euro/kg
73	RESI-Farm level risk spreading	Ordinal scale: level 1 (high risk-spreading), level 2 Intermediate, and level 3 (very low risk-spreading).	Ordinal
74	RESI-Adaption capacity through cooperation	Ordinal scale: level 1 (high adaptation capacity), level 2 Intermediate, and level 3 (very low adaptation capacity).	Ordinal
75	RESI-intradiversity chain regulations	Ordinal scale: level 1 (high adaptation capacity), level 2 Intermediate, and level 3 (very low adaptation capacity).	Ordinal
76	RESI-chain based adaptation capacity through learning	Ordinal scale: level 1 (high adaptation capacity), level 2 Intermediate, and level 3 (very low	Ordinal

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		adaptation capacity)	

Index	Name	Definition	Unit
Attribute: **Food safety (SAFE)**			
77	SAFE-Food safety standards	Food safety standards and controls	Ordinal
78	SAFE-additives	Artificial additive	mg/l
Attribute: **Territoriality (TERR)**			
79	TERR-territorial standards	AOC, IGP + practices such as dry stone walls + authochton varieties. 0= "vin rouge" ou vin de table; 1= "vins avec indication de provenance (vin de pays)"; 2= AOC Valais; 3= AOC region denomination; 4= AOC comunal denomination (Gran Cru included) + 1 point for each practices link to the territory (murs en pièrre sèche) + 1 point for each red authocton variety cultived (Cornalin, Humagne rouge, Diolinoir	Ordinal
80	TERR-stakeholder events	N° and type of events and associations in which stakeholders participate per year. 1) Vitival, 2)Vitiswiss, 3)local events (open cellar day) 4) degustations	Ordinal
81	TERR-pigs per farm	Pigs per farm	Number
82	TERR-Index Productive Specialization	Non normalized index (IPS)	Number
Attribute: **Technical innovation (TI)**			
83	TI-innovation to reduce GHG	GHG mitigation practices implemented within past 6 years in: i.) wheat production and storage; ii.) milling**;** iii.) baking processes; iv.) distribution systems.	Ordinal
84	TI-innovation to reduce waste	Waste reduction & disposal innovations within past 6 years in: i.) wheat production and storage; ii.) milling iii.) baking processes; iv.) retail/distribution systems.	Ordinal
85	TI-metrics in place sustainable packing bread	Bread packaging: non-recyclable (0); part of packaging is recyclable (1); all recyclable packaging (2);recyclable packaging from responsibly sourced materials (3); recyclable packaging from responsibly sourced materials and recycling instructions (4)	Ordinal
86	TI-use traditional processes	Practical use of traditional production processes and preservation of local knowledge	Ordinal