

Pillar I Result indicator fiches¹ (last update November 2018)

Indicator No.	Indicator name
R.01_PI	Share of direct support in agricultural income
R.02_PI	Variability of farm income
	- By type of farm
	- By economic size
R.03_PI	Value added for primary producers in the food chain
R.04_PI	EU agricultural exports
	- share of EU agricultural exports in world exports
	- share of final products in EU agricultural exports
R.05_PI	Public intervention: % volume of products bought in intervention storage out of total EU production
R.06_PI	Private storage: % volume of products exported in private storage out of total EU production
R.07_PI	Export refunds: % volume of products exported with export refunds out of total EU production
R.08_PI	EU commodity prices compared to world prices (broken down by product)
R.09_PI	Value of production under EU quality schemes compared to total value of agricultural and food production
R.10_PI	Importance of organic farming
	- share of organic area in total utilised agricultural area (UAA)
	- share of organic livestock in total livestock
R.11_PI	Crop diversity
	- on farm (number of farms by number of crops and size)
	- in a region
R.12_PI	Share of grassland in total UAA
R.13_PI	Share of ecological focus area (EFA) in arable land
R.14_PI	Share of area under greening practices
R.15_PI	Net greenhouse gas emissions from agricultural soils
R.16_PI	Structural diversity
	- in absolute terms
	- in relative terms

¹ COMMISSION IMPLEMENTING REGULATION (EU) No 834/2014 of 22 July 2014 laying down rules for the application of the common monitoring and evaluation framework of the common agricultural policy

FICHE CONTENTS

Indicator Name	<i>Title of the indicator which will be used in implementing regulation/guidance documents</i>
Related specific objective(s)	<i>Identification of the specific objective(s) as defined in the CAP intervention logic</i>
Definition	<i>Concise definition of the concept, including if the indicator already exists, e.g. AEI, EUROSTAT indicator. If appropriate, include the methodology/formula for establishment of the indicator</i>
Unit of measurement	<i>Unit used to record the value (e.g. ha, tonnes, €, %)</i>
Methodology/formula	<i>Identification of what is needed to transform data from the operation database into value for the indicator</i>
Data source	<i>Identification of existing data sources (e.g. EUROSTAT identifying relevant data set, FADN, European Environmental Agency, etc.)</i>
References/location of the data	<i>Links (other references) to data sources (e.g. in EUROSTAT specifying exact tables, FAO, World bank) AEI definitions, regulations establishing indicators, etc.</i>
Data collection level	<i>Identification of the geographical level at which the data is available and at which level the indicator should be established</i>
Frequency	<i>Frequency at which the indicators is collected/calculated</i>
Time lag	<i>How old are the data when they become available</i>
Comments/caveats	<i>Comments concerning interpretation of the indicator for monitoring and evaluation purposes and its caveats, if appropriate</i>

1 Share of direct support in agricultural income

R.01_PI	
Indicator Name	Share of direct support in agricultural income
Related specific objective(s)	Enhance farm income
Definition	<p>The indicator gives the share of direct support (coupled and decoupled payments) in both agricultural factor income and agricultural entrepreneurial income.</p> <p>The components of the indicator are:</p> <ul style="list-style-type: none"> - Direct support which refers to all direct payments² from the EU budget. Data are presented per financial year. - Agricultural factor income, which represents income generated by farming activities (i.e. off-farm activities are not included), and which is used to remunerate (1) borrowed/rented production factors (capital investment, wages for salaries and rented land), and (2) own production factors (non-salaried (= family) labour, land belonging to the agricultural holding and own capital). - Agricultural entrepreneurial income, which represents the income generated by farming activities after deduction of wages, rents and interest paid which can be used to reward (2) own production factors (non-salaried (= family) labour, land belonging to the agricultural holding and own capital). <p>Value of agricultural production</p> <ul style="list-style-type: none"> - variable inputs (fertilisers, pesticides, feed etc) - depreciation - total taxes (on products and production) <u>+ total subsidies (on products and production)</u> = Factor income - wages - rents - interest paid <p style="text-align: right;">} borrowed/rented production factors (1)</p> <p>= Entrepreneurial income (family farm income) which includes own production factors (2)</p>
Unit of measurement	%
Methodology/formula	The indicator is calculated by DG AGRI. Figures on coupled and decoupled payments per Member State are divided by figures per Member State on factor income and entrepreneurial income extracted from the Eurostat database.
Data source	Eurostat – Economic Accounts for Agriculture EU budget data on financial years
References/location of the data	Agricultural factor income and agricultural entrepreneurial income in current prices (million euro) are directly available on the Eurostat website http://epp.eurostat.ec.europa.eu/portal/page/portal/agriculture/data/data_base Economic Accounts for Agriculture, Table <i>Economic accounts for agriculture - values at current prices (aact_eaa01)</i> EU budget data on financial years are obtained from DG AGRI (Unit R.1)

² BPS/SAPS + 'Green' payments + payments for young farmers + redistributive payments + payments for areas with natural constraints + coupled support + small farmers scheme payments, as specified in Reg. 1307/2013. Extra national payments are excluded.

Data collection level	EU and Member States
Frequency	yearly
Time lag	N+1
Comments/caveats	In the calculation, payment figures from the EU budget are shifted backwards by one year when divided by figures on income, as direct payments received in a given year correspond to entitlements from the previous year.

2 Variability of farm income

R.02_PI	
Indicator Name	Variability of farm income
Related specific objective(s)	Enhance farm income
Definition	<p>The indicator is calculated as the percentage change between income in year N and the average income over the three previous years (N-1 to N-3). The indicator will be calculated per Member State, type of farming and economic size according to the Union typology for agricultural holdings (see annexes IV and V to Commission Implementing Regulation (EU) 220/2015).</p> <p>For the grouping according to type of farming and economic size, the TF8 and ES6 definitions as implemented in the Farm Accountancy Data Network (FADN) will be used.</p> <p>Income is measured by Gross Value Added (GVA), which is defined as the value of output less the value of intermediate consumption. Following the FADN methodology, GVA is calculated as total output (standard variable SE131) minus total intermediate consumption (standard variable SE275). Output is valued at market prices and intermediate consumption at purchasers' prices.</p> <p>Two versions of the indicator will be used: GVA per farm and GVA per Annual Work Unit (AWU), where AWU is expressed in full-time person equivalents.</p> <p>For more detailed information on the FADN methodology, see pages 7 and 8 of this document.</p>
Unit of measurement	%
Data source	Farm Accountancy Data Network (FADN), DG AGRI.
References/location of the data	<p>In FADN standard results:</p> <ul style="list-style-type: none"> - Total output (per farm) is given by the standard variable SE131; - Total intermediate consumption is given by the standard variable SE275; - AWU is given by the standard variable SE010; - GVA is defined as SE131 - SE275; - GVA/AWU is defined as (SE131 - SE275)/SE010. <p>Data are accessible on the following link: http://ec.europa.eu/agriculture/rica/database/database_en.cfm</p>
Data collection level	<p>Collection at the level of FADN regions by Member States (the list of these regions is given in Annex 1 to Commission Regulation (EC) 1217/2009; the regions' reference numbers are specified in Annex II to Commission Implementing Regulation (EU) 220/2015).</p> <p>Calculation of standard results at the level of FADN regions and Member States is carried out by DG AGRI.</p>
Frequency	Data are collected annually

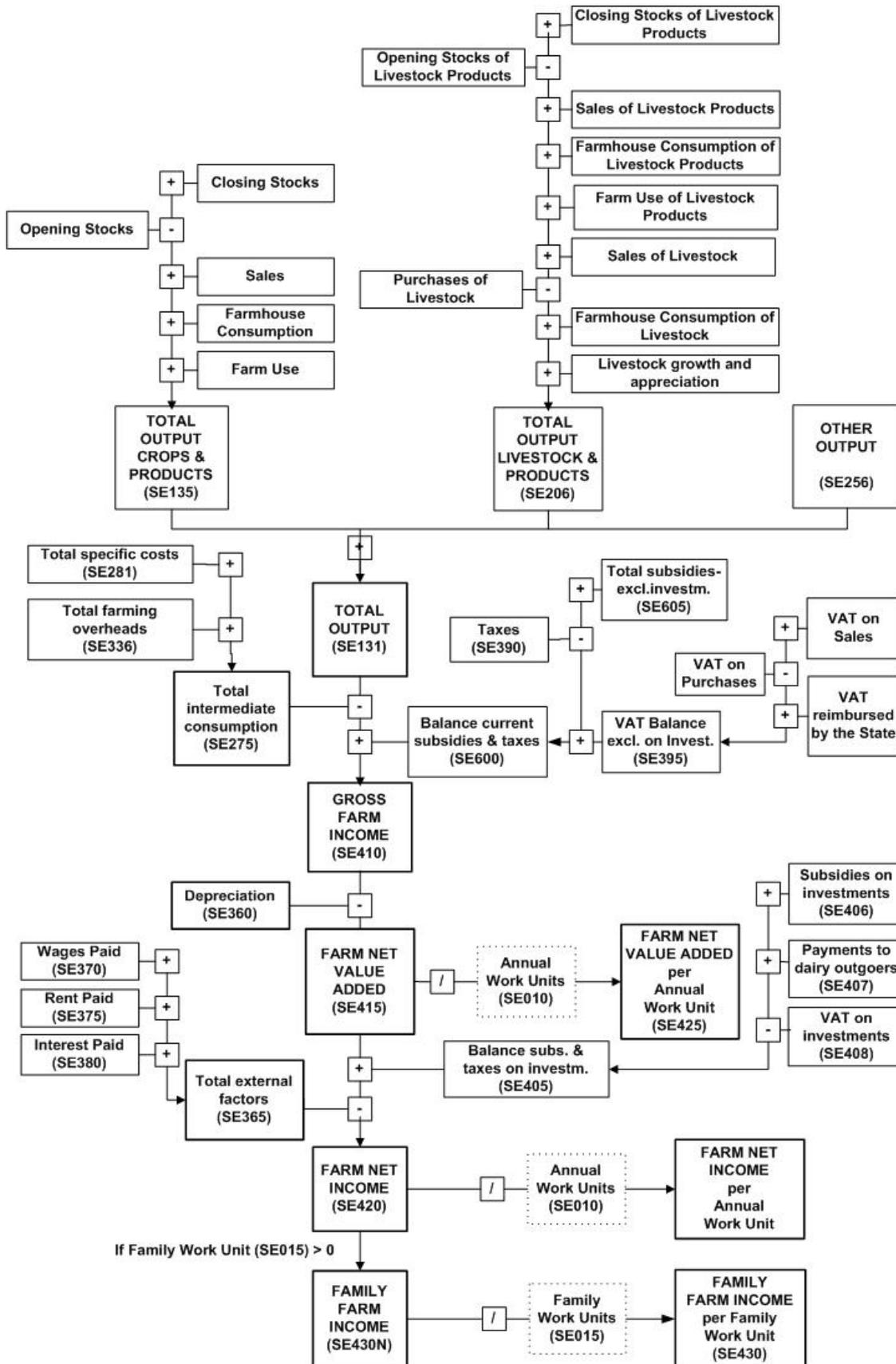
Time lag	Data are available with a two-year lag
Comments/caveats	<p>The two versions of the indicator are complementary:</p> <ul style="list-style-type: none"> - GVA per AWU is better suited to compare farms' gross income between Member States as it takes into account structural differences in the average farm size; - GVA per farm is however a simpler indicator and can be used for comparison of income developments within Member States over time. <p>It is important to note that:</p> <ul style="list-style-type: none"> - the estimation of AWU on a farm may show some variation across Member States; - both GVA per farm and GVA per AWU may take on negative values for a specific subset of farms – an element which must be taken into account for the calculation of percentage changes; - similarly, when analysing changes of indicators with values close to zero, very small absolute changes of income may translate into high percentage changes.

ANNEX 1: Grouping according to type of farm (TF8) and economic size (ES6) used in FADN

TF8 Grouping	Principal type of farming
1. Fieldcrops	15. Specialist cereals, oilseeds and protein crops 16. General field cropping
2. Horticulture	21. Specialist horticulture indoor 22. Specialist horticulture outdoor 23. Other horticulture
3. Wine	35. Specialist vineyards
4. Other permanent crops	36. Specialist fruit and citrus fruit 37. Specialist olives 38. Various permanent crops combined
5. Milk	45. Specialist dairying
6. Other grazing livestock	46. Specialist cattle - rearing and fattening 47. Cattle - dairying, rearing and fattening combined 48. Sheep, goats and other grazing livestock
7. Granivores	51. Specialist pigs 52. Specialist poultry 53. Various granivores combined
8. Mixed	61. Mixed cropping 73. Mixed livestock, mainly grazing livestock 74. Mixed livestock, mainly granivores 83. Field crops - grazing livestock combined 84. Various crops and livestock combined

ES6 grouping	
1.	2 000 - <8 000 EUR
2.	8 000 - <25 000 EUR
3.	25 000 - <50 000 EUR
4.	50 000 - <100 000 EUR
5.	100 000 - <500 000 EUR
6.	>= 500 000 EUR

ANNEX 2: Definition of Output, Balance of subsidies and taxes, Income



Source: RICC 882, FADN.

3 Value added for primary producers in the food chain

R.03_PI	Value added for primary producers in the food-chain
Indicator Name	
Related specific objective(s)	Improve agricultural competitiveness
Definition	The indicator looks at the structure of the food chain and calculates the share of the primary production (agriculture) on the total value added generated by different participants of the food chain (primary production, food manufacturing, food distribution and food service activities).
Unit of measurement	- Million EUR for: agriculture (primary production); food and beverages manufacturing (food manufacturing); food and beverages distribution (food distribution); food and beverages consumer services (food service activities); and total - % of agriculture in total value added in the food chain
Data source	Eurostat – Economic Accounts for Agriculture and Structural Business Statistics
References/location of the data	<p>Value added of the primary production (agriculture) Gross value added at basic prices + subsidies on production - other taxes on production (table Economic accounts for agriculture - aact_eaa01) '</p> <p>Available at: http://ec.europa.eu/eurostat/web/products-datasets/-/aact_eaa01</p> <p>Value added of the food and beverages manufacturing (food manufacturing) Manufacture of food products (C10) + beverages (C11) + tobacco products (C12) (table Annual enterprise statistics for special aggregates of activities (NACE Rev. 2) - sbs_na_sca_r2)</p> <p>Available at: http://ec.europa.eu/eurostat/web/structural-business-statistics/data/database</p> <p>Value added of the food and beverages distribution (food distribution) Agents involved in the sale of food, beverages and tobacco (G4617) + Wholesale of food, beverages and tobacco (G463) + Retail sale in non-specialised stores with food, beverages or tobacco predominating (G4711) + Retail sale of food, beverages and tobacco in specialised stores (G472) + Retail sale via stalls and markets of food, beverages and tobacco products (G4781) (table Annual detailed enterprise statistics for trade (NACE Rev. 2 G) - sbs_na_dt_r2)</p> <p>Available at: http://ec.europa.eu/eurostat/web/structural-business-statistics/data/database</p>

	<p>Value added of the food and beverages consumer services (food service activities) Food and beverage service activities (table Annual detailed enterprise statistics for services (NACE Rev. 2 H-N and S95) - sbs_na_1a_se_r2)'</p> <p>Available at: http://ec.europa.eu/eurostat/web/structural-business-statistics/data/database</p>
Data collection level	EU and Member States
Frequency	<ul style="list-style-type: none"> - Annually for the Economic Accounts for Agriculture (final data received in September of Y+1 and published in October Y+1) - Every 18 months for the Structural Business Statistics (final data ought to be sent to Eurostat 18 months after the end of the reference period (Y))
Time lag	<ul style="list-style-type: none"> - Data in the Economic Accounts is available for year Y-1 - Data in the Structural Business Statistics is available for year Y-3.
Comments/caveats	<p>The whole food manufacturing is covered as well as the food distribution of three products (food, beverages, tobacco). However, the share is still an over-estimate, as the value-added of the primary production includes also other products (e.g. textiles and bio-industries outlets, which have been excluded, when possible, in the rest of the food chain added value).</p> <p>Additionally, the food distribution covers all possible channels (both retail and wholesale) as their importance on sales in individual Member States differs.</p> <p>Food and beverages distribution - from 2011, EU-28 is the sum of reported EU-28 values for respective distribution channels. The discrepancy between the sum of individual MS and EU-28 originates in the estimated MS data in cases where no data is available (e.g. for confidentiality reasons). The same applies to the food and beverage service activities.</p>

4 EU agricultural trade

R.04_PI	EU agricultural trade
Indicator Name	
Related specific objective(s)	Improve agricultural competitiveness
Definition	<p>The indicator consist of four sub-indicators:</p> <p>1) % share EU agri-food exports in production values (separately for agri primary products and food industry products)</p> <p>This sub-indicator expresses what share of the production value of both primary products from the agricultural sector and processed products from the food industry is exported.</p> <p>2) % share EU agri-food exports in world agri-food exports</p> <p>This sub-indicator captures the importance of the EU as agri-food exporter in total worldwide agri-food export.</p> <p>3) % share final products (processed agricultural products + food preparations) in EU agri-food exports</p> <p>This sub-indicator expresses what share of EU agri-food exports are products for final use/consumption rather than primary products that will most likely be further processed/transformed, beverages or non-edible products.</p> <p>4) agri-food imports from Least Developed Countries (LDC) (EU imports vs. imports of US + Canada + China + Russia + Japan)</p> <p>This sub-indicator captures the total value of EU agri-food imports from LDCs, comparing them to the combined agri-food import value of the other 5 major world agri-food importers.</p> <p>These indicators are calculated annually by DG AGRI on the basis of EUROSTAT Comext, EUROSTAT Prodcom, EUROSTAT economic accounts for agriculture and Global Trade Atlas (GTA) data, using the definition of agricultural products (prod agri) developed internally by DG AGRI unit A.1 and used in DG AGRI publications on agri-food trade (see details on sources below)</p>
Unit of measurement	% (sub-indicators 1, 2 and 3); billion EUR (sub-indicator 4)
Data source	Sub-indicator 1: EUROSTAT comext database (exports of agricultural commodities and other primary agricultural products); EUROSTAT economic accounts for agriculture (production value of agricultural commodities and other primary agricultural products (values at current prices [aact_eaa01])); EUROSTAT prodcom (exports and production values of food industry products); flow: export / production value; declarant: EU28

	<p>Sub-indicator 2: GTA; flow: export, declarant: EU28 / world Sub-indicator 3: EUROSTAT comext; flow: export, declarant: EU28 Sub-indicator 4: GTA, flow: import; declarant: EU28, Canada, China, Japan, Russia, United States</p> <p>Product coverage and product categories as in DG AGRI A.1 trade statistics.</p>
References/location of the data	<p>EUROSTAT: https://ec.europa.eu/eurostat/statistics-explained/index.php/Main_Page GTA : https://www.gtis.com/gta/ AGRI A.1, information on product coverage/categories in trade statistics: https://ec.europa.eu/agriculture/trade-analysis/statistics_en</p>
Data collection level	<p>Indicator at EU28 aggregated level, at aggregated level for US + Canada + China + Russia + Japan (sub-indicator 4), at aggregated global (world) level (sub-indicator 2)</p>
Frequency	<p>Data is available monthly for COMEXT and GTA, annually for Prodcom, annually for economic accounts for agriculture Indicators are calculated yearly</p>
Time lag	<p>Comext: year N is available in February N+1 Economic accounts for agriculture: year N is available in October N+1 Prodcom: year N is available +/- July N+1 GTA: depending on reporting country, data for sub-indicators 2 and 4 will normally be available by May year N+1</p>
Comments/caveats	

5 Public intervention

R.05_PI	Public intervention
Indicator Name	% volume of products bought in intervention storage out of total EU production
Related specific objective(s)	Maintain market stability
Definition	<p>Ratio of volume of the products bought in the intervention storage and the total EU production of those respective products. The indicator will consist of sub-indicators providing this ratio for the individual products eligible for public intervention.</p> <p><u>Eligible products proposed for intervention</u> (Part II- Title I – Chapter I – Section 2 of Reg. 1308/2013):</p> <ul style="list-style-type: none"> - cereals (common wheat, barley, durum wheat, and maize), - paddy rice, - fresh or chilled meat of the beef and veal sector, - butter, - skimmed milk powder of top quality.
Unit of measurement	% (metric tonnes / metric tonnes)
Data source	<ul style="list-style-type: none"> - Total volume of products brought in the intervention storage in Year N: Member States notifications to DG AGRI as foreseen in Reg. 1272/2009³. - Eurostat data on final EU production for respective products.
References/location of the data	<ul style="list-style-type: none"> - ISAMM database for volumes of public storage notified by Member State (or Agriview – output indicator for public intervention). - Eurostat statistics on production data under Agricultural Products database (APRO)
Data collection level	<ul style="list-style-type: none"> - Per Member State and total for the EU, for volumes of public storage - Total EU, for EU production
Frequency	<p>Yearly totals (output indicator):</p> <p>the individual sub-indicators per product eligible for public intervention will be established annually in Agriview.</p>
Time lag	<p>The total volume of products bought in intervention in Year N can be notified early in N+1 (February N+1).</p> <p>The total EU production (by product) will be available in February N+1 from the data base APRO (depending on products, 31/01 N+1 or February).</p>

³ According to the currently applicable regulation (Regulation 1272/2009), quantities in public storage are notified by the Member States to the Commission every week for cereals and rice (Article 56) and every month for beef meat, butter and skimmed milk powder (Article 57).

6 Private storage

R.06_PI	Private storage
Indicator Name	% volume of products in private storage out of total EU production
Related specific objective(s)	Maintain market stability
Definition	<p>Ratio of volume of the products placed into the publicly aided private storage and the total EU production of those respective products. The indicator will consist of sub-indicators providing this ratio for the individual products eligible for private storage.</p> <p>Eligible products for aid to private storage (Part II- Title I – Chapter I – Section 3 of Reg. 1308/2013):</p> <p><u>Eligible products:</u></p> <ul style="list-style-type: none"> - butter, - white sugar, - olive oil, - beef meat, - pigmeat, - sheepmeat, - goatmeat, - SMP, - flax fibre, - cheese PDO/PGI.
Unit of measurement	% (hectolitres / hectolitres or metric tonnes / metric tonnes)
Data source	<ul style="list-style-type: none"> - Volume of aided private storage: Member States notifications to DG AGRI as foreseen in Reg. 826/2008⁴ - Eurostat data on final EU production for respective products
References/location of the data	<ul style="list-style-type: none"> - ISAMM database for volumes of aided private storage (or Agriview – output indicator for private storage aid). - Eurostat statistics on production data under Agricultural Products database (APRO)
Data collection level	<p>Per Member State and total for the EU, for volumes of aided private storage – Total EU, for EU production</p> <p>Eurostat data on final EU production for respective products</p>
Frequency	<p>Yearly</p> <p>The individual sub-indicators per product eligible for private storage will be established annually in Agriview.</p>
Time lag	<p>The total volume of products placed into the publicly aided private storage in Year Y can be notified early in N+1 (February N+1).</p> <p>The total EU production (by product) will be available in February N+1 from the data base APRO (depending on products, 31/01 N+1 or February).</p>

⁴ According to the currently applicable regulation (Regulation 826/2008), quantities placed into and leaving aided private storage are notified by the Member States to the Commission every month (Article 35, paragraph 1, point b)

7 Export refunds

R.07_PI	Export refunds
Indicator Name	% volume of products exported with export refunds out of total EU production
Related specific objective(s)	Maintain market stability
Definition	Ratio of the volume of the products exported with export refunds and the total EU production per given period. The indicator will consist of sub-indicators providing the ratio for individual products eligible for export refunds, and to the extent that refunds are differentiated by destination. Eligible products (Chapter VI of Part III of Reg. 1308/2013): cereals, rice, sugar, beef and veal, milk and milk products, pigmeat, eggs, poultry meat, and a series of products processed from the above-mentioned.
Unit of measurement	Heads for live animals, units for eggs, metric tonnes for other products
Data source	- Member States notifications to DG AGRI as foreseen in Regulation 612/2009 - Eurostat data on final production for respective products
References/location of the data	- ISAMM database for volumes of products exported with export refunds (or Agriview for the output indicator) - Eurostat statistics on production data under Agricultural Products database (APRO)
Data collection level	EU level
Frequency	Yearly
Time lag	At most one month for export licences => January/February N+1 at the latest (The total EU production (by product) will be available in February N+1 from the data base APRO (depending on products, 31/01 N+1 or February).
Comments/caveats	

8 EU commodity prices compared to world prices

R.08_PI	EU commodity prices compared to world prices (broken down by product)
Indicator Name	
Related specific objective(s)	Improve agricultural competitiveness [Maintain market stability]
Definition	Ratio EU price / World price for the following agricultural commodities based on prices EUR/tonne: <ul style="list-style-type: none"> - Soft wheat, - Maize, - Barley, - Sugar, - Butter, - Skimmed milk powder, - Whole milk powder, - Cheese (Cheddar), - Beef meat, - Pigeat, - Poultry meat, - Eggs.
Unit of measurement	Ratio
Methodology/formula	<p>Currency conversion For the EU, absolute price data is expressed in EUR in the data source, therefore no calculation is needed. For the World, absolute price data is expressed in other currencies (usually USD) in the data sources, therefore it has to be converted into EUR using the ECB monthly exchange rates.</p> <p>Weight conversion Some prices are not expressed in tonnes but in kilograms or other units, therefore they need to be converted into tonnes.</p> <p>Monthly to annual data conversion When only monthly data are available, they will be converted into annual data using an arithmetic average of January-December data for all commodities (i.e. crop market years will not be used in the indicator).</p>
Data source	<p>EU prices EU prices are based on weekly prices communicated by the Member States to DG AGRI. Monthly EU and MS averages are calculated by DG AGRI and are available online on the Europa website: https://ec.europa.eu/agriculture/markets-and-prices_en</p> <p>World prices The main data sources are the FAO and USDA: - FAO → FPMA – Food Price Monitoring and Analysis Tool, available at: http://www.fao.org/giews/pricetool/ (tab International:Monthly). - USDA → http://www.usda.gov/wps/portal/usda/usdahome</p> <p>Exchange rates Monthly EUR/USD exchange rates are based on rates published by the European Central Bank: https://www.ecb.europa.eu/stats/policy_and_exchange_rates/euro_reference_exchange_rates/html/index.en.html</p>

	Monthly rates are calculated as the average of the daily rates
References/location of the data	<p>EU prices The product codes to be used are the following:</p> <ul style="list-style-type: none"> - soft wheat → BLTPAN (Breadmaking common wheat), for the representative market Rouen (delivered Rouen), - maize → MAI (Feed maize), for the representative market Bordeaux, - barley → ORGFOUR (Feed barley), for the representative market Rouen (delivered Rouen), - sugar → white sugar, for the EU, - butter → LAI 254 (Butter), for the EU, - Skimmed milk powder → LAI 249, for the EU, - Whole milk powder → LAI 250, for the EU, - cheese → LAI 259 (Cheddar), for the EU, - beef meat → BOV A R3 (Young bulls), for the EU, - pigmeat → POR REGULATED E (0203 2E before 2014), for the EU, - poultry meat → POULET ALL, for the EU, - eggs → OEUFS L & M, for the EU. <p>World prices The prices to be used are the following:</p> <ul style="list-style-type: none"> - wheat (source: USDA) → Wheat (US), no 2, soft red winter, - maize (source: USDA) → Maize (US), no 2, yellow, - barley (source: International Grail Council) → Barley (Black Sea feed, f.o.b.), - sugar (source: London International Financial Futures and Options Exchange) → London white sugar 05, nearby (closing), average of daily quotations, - butter (source: USDA) → Dairy: Butter (European & Oceania average indicative export prices, f.o.b), - Skimmed milk powder (source: USDA) → Dairy: Skimmed Milk Powder (Oceania average indicative export prices, f.o.b), - Whole milk powder (source: USDA) → Dairy: Whole Milk Powder (Oceania average indicative export prices, f.o.b), - cheese (source: USDA) → Dairy: Cheddar Cheese (Oceania average indicative export prices, f.o.b), - beef meat: (source: pecuaria.com.br) → Beef meat (Brazil, average 6 main states), - pigmeat (source: USDA) → US lean hog carcass 167-187 lb Iowa Minnesota - poultry meat (source: USDA) → Fresh chicken Grade A Chicago (US), - eggs (source: USDA) → Grade A eggs (US).
Data collection level	For EU prices, data are collected at market level; averages at Member State and EU levels are calculated by DG AGRI.
Frequency	Yearly averages are calculated using monthly prices from January to December; therefore, it will be possible to calculate the average for a given year in January-February of the following year, once December data are published.
Time lag	See 'Frequency'.
Comments/caveats	Series may change over the time (change in codes, better World series to compare with EU prices...). The list of price series mentioned in this document should therefore be confirmed every year before the calculation of the averages.

9 Value of production under EU quality schemes

R.09_PI	Value of production under EU quality schemes compared to total value of agricultural and food production
Indicator Name	
Related specific objective(s)	Meet consumer expectations
Definition	Value of production under the quality schemes PDO and PGI (Council Regulation (EC) No 510/2006 compared to total agricultural and food production. Value of production is measured in sales value (in EUR).
Unit of measurement	%
Data source	External study commissioned by the Commission. The 2008 study covered the years 2005, 2006, 2007 and partly 2008. The 2012 study covered the period 2005-2010. A new study is scheduled for 2018 covering the period 2011 - 2017
References/location of the data	Data (the value of production) are located in the Member States with the producers under PDO and PGI schemes.
Data collection level	Data are available at the producer's level. Their availability depends on the readiness of producer to provide them. There is no systematic data collection established EU wide but some Member States have national data collections. Indicator will be established at EU level, based on an estimation provided by a study.
Frequency	Every four years
Time lag	Approximately 2 years
Comments/caveats	Given the lack of a clear definition of quality, the EU PDO/PGI schemes were taken as a proxy for quality production. The indicator could be biased in case some producers (notably the larger ones) do not provide data. So far this is the only method to obtain data; Member States are reluctant to ensure a systematic data collection of the value of production under PDO and PGI schemes.

10 Importance of organic farming

R.10_PI Indicator Name	Importance of organic farming
Related specific objective(s)	Meet consumer expectations [Provide environmental public goods] [Climate change mitigation and adaptation] [Foster innovation]
Definition	<p>The indicator will consist of two sub-indicators:</p> <ul style="list-style-type: none"> • Share of organic area in total UAA: percentage of total UAA under organic crop management (fully converted and under conversion) • Share of organic livestock in total livestock: percentage of animals under organic management in different categories: <ul style="list-style-type: none"> • cattle, • goat, • equidae, • sheep, • pig. <p>Farming is considered to be organic if it complies with Council Regulation (EC) No 834/2007.</p>
Unit of measurement	%
Data source	<p>Eurostat</p> <p><u>Main data source:</u></p> <ul style="list-style-type: none"> • Organic farming statistics (org): • Annual data collection • National level • Indicator for share of crop area in total UAA already calculated and available; livestock indicator requires calculations • Not fully complete data set <p><u>Potential alternative/additional data source:</u></p> <ul style="list-style-type: none"> • Structure of agricultural holdings (ef): • Data collection every 3-4 years • Breakdown possible at NUTS 2 or NUTS 3 (in census years) level • Requires calculations • Complete data set
References/location of the data	<ul style="list-style-type: none"> • Share of organic area in total UAA: <p>Table: food_in_porg1 Variable: PCT_ORG_UAA (Share of total organic crop area out of total Utilised Agricultural Area (%)).</p> <ul style="list-style-type: none"> • Share of organic livestock in total livestock: <p>Tables:</p> <ul style="list-style-type: none"> • food_in_porg3 for the number of animals of different categories (live bovine animals, live swine, live goats, live poultry, live horses, asses, mules and hinnies) produced organically,

	<ul style="list-style-type: none"> • APRO_mt_lscatl for annual data of cattle population, • APRO_mt_lsgoat for annual data of goat population, • APRO_mt_lsequi for annual data of equidae population, • APRO_mt_lspig for annual data of pig population. <p>For this sub indicator, the share of organic in total production is not calculated by Eurostat but can be calculated by comparing the number of animals reared organically with the total animal population.</p>
Data collection level	<ul style="list-style-type: none"> • Share of organic area in total UAA: <p>Readily available at national level in Eurostat database Likely to be available at lower levels in the Member States Alternatively, the indicator can be calculated at lower geographical levels from FSS data, but only at certain time intervals (3-4 years)</p> <ul style="list-style-type: none"> • Share of organic livestock in total livestock: <p>Data on the number of livestock reared under organic production methods are available at national level in the Eurostat database and are likely to be available at lower levels in the Member States Data on total livestock population by animal type can be broken down at NUTS 2 level (NUTS 1 for Germany and the UK) Alternatively, the indicator can be calculated at lower geographical levels from FSS data, but only at certain time intervals (3-4 years).</p>
Frequency	Annually for non-FSS data Every 3-4 years for FSS data
Time lag	2 years (in August 2014 we have data for 2012)
Comments/caveats	<p>The value of this indicator should be seen in comparison to other years or other countries. For example, a country could have a share of organic farming of 5%, which sounds small but could be twice as much as in the year before, or three times as much as in the neighbouring country.</p> <p>The way in which organic data will be collected in the future is currently under discussion, which may lead to changes in the data sources.</p> <p>While data on organic crop area are not always available for all products, the main product categories are well reported. It is thus possible to illustrate the area under organic cultivation at national level, and over the whole EU 28, including the share of organic area in the total UAA in each country and at EU level.</p> <p>Data on organic livestock are reasonably well reported for the period from 2005 onwards, except for Germany and Malta, where no data are available.</p>

11 Crop diversity

R.11_PI																																																		
Indicator Name	Crop diversity - on farm (number of farms by number of crops and size) - in a region																																																	
Related specific objective(s)	Provide environmental public goods [climate change mitigation and adaptation]																																																	
Definition	This indicator comprises two sub-indicators: a) Crop diversity on farm (number of farms by number of crops and size): <ul style="list-style-type: none"> ○ Number and % of farms by number of crops (1, 2, 3, and >3) and by size of arable land (arable land < 10ha; 10ha< arable land < 30 ha; 30 ha <arable land < 100 ha; arable land>100 ha), at NUTS 2 level. b) Crop diversity in a region: <ul style="list-style-type: none"> ○ Average number of crops grown on a holding at NUTS 2 level as one, and broken down by arable land size classes (arable land < 10ha; 10ha< arable land < 30 ha; arable land > 30 ha). 																																																	
Unit of measurement	Number; %																																																	
Data source	<u>Sub-indicator a:</u> Eurostat - Farm Structure Survey Example: <table style="margin-left: 40px; border-collapse: collapse;"> <thead> <tr> <th colspan="2"></th> <th colspan="4" style="text-align: center;">% of holdings</th> <th></th> </tr> <tr> <th colspan="2"></th> <th style="text-align: center;">1 crop</th> <th style="text-align: center;">2 crops</th> <th style="text-align: center;">3 crops</th> <th style="text-align: center;">> 3 crops</th> <th style="text-align: center;">Total</th> </tr> </thead> <tbody> <tr> <td style="text-align: right;">Total</td> <td><10 ha</td> <td style="text-align: center;">x%</td> <td style="text-align: center;">y%</td> <td style="text-align: center;">z%</td> <td style="text-align: center;">w%</td> <td style="text-align: center;">100%</td> </tr> <tr> <td></td> <td>10< <30</td> <td style="text-align: center;">xy%</td> <td style="text-align: center;">xx%</td> <td style="text-align: center;">xz%</td> <td style="text-align: center;">yy%</td> <td style="text-align: center;">100%</td> </tr> <tr> <td></td> <td>30< <100</td> <td style="text-align: center;">xy%</td> <td style="text-align: center;">xx%</td> <td style="text-align: center;">xz%</td> <td style="text-align: center;">yy%</td> <td style="text-align: center;">100%</td> </tr> <tr> <td></td> <td>100<</td> <td style="text-align: center;">xz%</td> <td style="text-align: center;">xx%</td> <td style="text-align: center;">yz%</td> <td style="text-align: center;">wy%</td> <td style="text-align: center;">100%</td> </tr> <tr> <td style="text-align: right;">Total</td> <td></td> <td style="text-align: center;">x%</td> <td style="text-align: center;">y%</td> <td style="text-align: center;">z%</td> <td style="text-align: center;">w%</td> <td style="text-align: center;">100%</td> </tr> </tbody> </table> <u>Sub-indicator b:</u> FSS			% of holdings							1 crop	2 crops	3 crops	> 3 crops	Total	Total	<10 ha	x%	y%	z%	w%	100%		10< <30	xy%	xx%	xz%	yy%	100%		30< <100	xy%	xx%	xz%	yy%	100%		100<	xz%	xx%	yz%	wy%	100%	Total		x%	y%	z%	w%	100%
		% of holdings																																																
		1 crop	2 crops	3 crops	> 3 crops	Total																																												
Total	<10 ha	x%	y%	z%	w%	100%																																												
	10< <30	xy%	xx%	xz%	yy%	100%																																												
	30< <100	xy%	xx%	xz%	yy%	100%																																												
	100<	xz%	xx%	yz%	wy%	100%																																												
Total		x%	y%	z%	w%	100%																																												
References/location of the data	<u>Sub-indicator a:</u> special request to Eurostat for extraction from Eurofarm database <u>Sub-indicator b:</u> from sub-indicator a																																																	
Data collection level	Member States																																																	
Frequency	FSS – every 3-4 years (2013; 2016)																																																	
Time lag	FSS – 2-3 years (=> 2013 FSS results are available mid-2015; 2016 FSS will be available in 2018)																																																	
Comments/caveats	Although the 2015 data will only reflect the crop diversity in 2013 (thus before the reform), it is necessary to include this indicator as a "baseline" with which to compare the 2018 one.																																																	

12 Share of grassland in total UAA

R.12_PI	Share of grassland in total UAA
Indicator Name	
Related specific objective(s)	Provide environmental public goods
Definition	Share of grassland in total UAA a) Sub-indicator a: share of both permanent grassland and meadows out of total UAA. b) Sub-indicator b: share of temporary grasslands out of total UAA.
Unit of measurement	%
Data source	Eurostat - Crop statistics
References/location of the data	Table apro_cpnh1 at national level: total permanent grassland and meadow, total temporary grassland, total UAA Table apro_cpnhr at regional level
Data collection level	Member States
Frequency	Yearly
Time lag	1 year
Comments/caveats	This indicator can be analysed together with the ratio of areas of <i>permanent</i> grassland to the total agricultural area, which will be notified yearly by MS (every 15/12), as foreseen in Article 65(1)(d) of Reg. 639/2014. Besides, there is a related context indicator which is well defined and regularly updated: context indicator 18, agricultural area (see http://ec.europa.eu/agriculture/cap-indicators/context/index_en.htm) This indicator gives information on the share of UAA in different categories of land use: arable land, pastures and permanent crops.

13 Share of ecological focus area (EFA) in arable land

R.13_PI	Share of EFA in agricultural land
Indicator Name	
Related specific objective(s)	Provide environmental public goods
Definition	<p>Share of ecological focus area (EFA) in agricultural land:</p> <p>a) Sub-indicator a: the number of hectares declared by farmers as EFA, total and by EFA type, out of <i>the total arable land</i>. EFA types are:</p> <p>(a) land lying fallow; (b) terraces; (c) landscape features; (d) buffer strips; (e) agro-forestry; (f) strips along forest edges; (g) short rotation coppice; (h) afforested areas; (i) catch crops, or green cover; (j) nitrogen-fixing crops.</p>
Unit of measurement	%
Data source	Data notified by Member State (number of hectares declared by farmers as EFA under direct payments ⁵) (see also output indicator n°9 under Direct Payments) and Eurostat - Crop statistics for arable land.
References/location of the data	<p>- ISAMM database or Agriview (output indicator) for the number of hectares of EFA</p> <p>- Eurostat for the total arable land (Table apro_cpnh1)</p>
Data collection level	Member States
Frequency	Yearly
Time lag	March N+1 for Year N
Comments/caveats	

⁵ Notification foreseen in Article 65(1)(c)(vii) of Commission Delegated Regulation 639/2014

14 Share of area under greening practices

R.14_PI	Share of area under greening practices (Pillar I)
Indicator Name	
Related specific objective(s)	Provide environmental public goods
Definition	<p>This indicator aims at showing the proportion of agricultural land which is subject to environmentally-friendly practices under Pillar I. This will count the area covered by those farms where at least one of the greening practices is applied, and the area covered by organic farms receiving direct payments.</p> <p>It is the ratio between:</p> <p>1) Land under greening practices = the total number of hectares declared by farmers who have to apply at least one greening obligation (Crop diversification / EFA / permanent grassland)⁶ + the total number of hectares declared (for direct payments) by farmers who comply with the requirements of Regulation (EC) No 834/2007 (organic farming)⁷ and</p> <p>2) the total agricultural area</p>
Unit of measurement	%
Data source	<p>1) Output indicators for greening and greening exemptions, from notifications by Member State (see output indicator fiches) in ISAMM and displayed in Agriview.</p> <p>2) Eurostat - Crop statistics for UAA</p>
References/location of the data	<p>1) ISAMM /Agriview</p> <p>2) Eurostat Table apro_cpnh1</p>
Data collection level	Member States
Frequency	<p>1) output indicators greening: Yearly (15/12/Year N – available March N+1)</p> <p>2) UAA yearly</p>
Time lag	March N+1
Comments/caveats	<p>This indicator does not count the area covered by rural development area-based measures. The share of agricultural land covered by rural development environmental contracts is accounted for separately.</p> <p>The idea is to combine these 2 indicators in the future to come to a total share of agricultural land covered by environmental practices. This would require identifying the (large) areas of overlap, and restricting the value to the total physical area covered by one or the other environmental practices.</p>

⁶ See also output indicator n°5 under Direct Payment, notification foreseen in the Commission Delegated Regulation 639/2014 in its Article 65(1)(c)(i).

⁷ See also output indicator n°5 under Direct Payment, notification foreseen in the Commission Delegated Regulation 639/2014 in its Article 65(1)(c)(ii).

15 Net greenhouse gas emissions from agricultural soils

R.15_PI	Net greenhouse gas (GHG) emissions from agricultural soils
Indicator Name	
Related specific objective(s)	Provide environmental public goods and pursue climate change mitigation (reduction of emissions) and adaptation (prevention of and coping with impacts of climatic changes).
Definition	Aggregated annual emissions and removals of carbon dioxide (CO₂), and emissions of methane (CH₄) and nitrous oxide (N₂O) from agricultural soils (grassland and cropland), reported by Member States under the 'Land Use, Land Use Change and Forestry' (LULUCF) inventory to United Nations Framework Convention on Climate Change (UNFCCC),.
Unit of measurement	Absolute net GHG emissions are reported in tonnes CO ₂ equivalents. Relative net emissions are reported as a percentage of the net emissions in the reference year 1990. All GHGs are accounted for on the basis of their global warming potentials (GWP) over a 100 year time period. GWP values are taken from IPCC (2007): CO ₂ = 1; CH ₄ = 25; N ₂ O = 298.
Data source	Annual official data submitted by Member States to the UNFCCC, and the EU Monitoring Mechanism (managed and compiled by the EEA/EIONET). Member States calculate sectorial emissions using standard methodologies (2006 IPCC guidelines) and according to a common reporting framework (CRF) agreed worldwide.
References/location of the data	Annual EU GHG inventory (e.g. 2014 edition: http://www.eea.europa.eu/publications/european-union-greenhouse-gas-inventory-2014): - - CO ₂ emissions from agricultural soils are recorded in Annex 2.9 CRF Tables LULUCF.zip – European Environment Agency (EEA) , which includes standard reporting table (SRT) for sector 5 (LULUCF). Only categories 5B (cropland) and 5C (grassland) are included. These account for emissions of cropland/grassland that remain in the same type of land use, and emissions from land converted to cropland/grassland. The full set of data on GHG emissions and removals, sent by countries to the UNFCCC and the EU GHG Monitoring Mechanism (EU Member States) is available at the following EEA webpage: National emissions reported to the UNFCCC and to the EU Greenhouse Gas Monitoring Mechanism – European Environment Agency (EEA) . The web-based tool EEA GHG viewer provides access and analysis of the data contained in the annual EU's GHG inventories since 1990. The EEA GHG data viewer can show emission trends for the main sectors/categories and allows for comparisons of emissions between different countries and activities. This data set can be consulted at : http://www.eea.europa.eu/data-and-maps/data/data-viewers/greenhouse-gases-viewer
Data collection level	Member State
Frequency	Data collected annually

Time lag	Year Y in June Y+2 (for instance GHG emissions data of 2010 are provided in summer 2012)
Comments/caveats	<p>IPCC guidance allows Member States to report GHG emissions and removals from agricultural soils (LULUCF) according to different levels of tiers. Tier 1 is based on the use of activity data (e.g. agricultural production statistics) and global emission factors. Tier 2 follows the same approach but applies nationally defined emission factors. Tier 3 involves the use of models and higher order inventory data tailored to the national circumstances. Methodologies for GHG emission estimates are thus not harmonised within the EU.</p> <p>In particular when using a low tier level, GHG emission estimates do not necessarily mirror the effects of all mitigation measures that are supported by the CAP. This would require a higher level of stratification of activity data, and corresponding information on emission factors, which often is not available. As a result, GHG emission estimates have a high level of uncertainty.</p> <p>This indicator only covers agricultural soils, and not agricultural GHG emissions other than CO₂, as Pillar I instruments have an impact primarily on soil related emissions (greening measures, and GAEC).</p> <p>Emission inventories will be identical to UNFCCC reporting, so there is no new reporting burden on Member States. This reporting is already done on an annual basis.</p> <p>Any indicator has to be interpreted and cannot be seen in isolation. This means that the GHG indicator has to be interpreted in relation to agricultural output, i.e., a reduction of agricultural production would not be desirable although it would yield a reduction of GHG emissions within the EU. Leakage (i.e. increases of emission outside the EU) is not included.</p> <p>Member States are encouraged to improve GHG inventories towards higher tier levels, which would allow demonstrating the effects of technological improvements.</p>

16 Structural diversity

R.16_PI Indicator Name	Structural diversity
Related specific objective(s)	Maintain diverse agriculture
Definition	<p>Structural diversity is here described as the distribution of holdings across different farm types or specialisations in a given country or region.</p> <p>Diversity is measured by Simpson's Index of Diversity, which determines the degree of concentration when individuals are classified into types.</p> <p>Simpson's Index of Diversity is defined as 1-D, with</p> $D = \frac{\sum n(n-1)}{N(N-1)}$ <ul style="list-style-type: none"> • n is the number of observations (here: farms) in any particular farm type • N is the total number of observations (farms) in the region for which the index will be determined. <p>The index can take on values between 0 (no diversity) and 1 (maximum diversity or perfect distribution of farms across all farm types).</p> <p>The degree of diversity is calculated across farm types at national and regional (NUTS 2) level.</p> <p>Countries or regions with higher index values should have a more diverse structure of agricultural holdings than those with lower index values. While this is clearly influenced by climatic, topographic or other external factors, a comparison of index values for the same country or region over time provides an insight into how structural diversity of agriculture in the particular country or region has developed.</p>
Unit of measurement	<ul style="list-style-type: none"> - Number and share of holdings per farm type Index value
Data source	Eurostat – Farm Structure Survey
References/location of the data	Table ef_kvftreg
Data collection level	<ul style="list-style-type: none"> - National - NUTS 2
Frequency	Every 3-4 years (FSS frequency)
Time lag	2-3 years

<p>Comments/caveats</p>	<p>Diversity index values depend on a number of parameters that differ across countries and regions:</p> <ul style="list-style-type: none"> • The total number of agricultural holdings. In a very small agricultural region, a single holding has a much stronger influence on the index value than in a region with several thousand holdings. • The number of categories present in a given country or region (in ecological terms, this would be the "richness"). This is influenced by external factors such as climate (e.g., there are no specialised olive producers in Northern Europe) or terrain (e.g., there are no large-scale producers on Malta). • The distribution of holdings across the different categories ("equitability"). <p>These factors need to be taken into account in the interpretation of the index values. Ideally, values should only be compared within a given country or region over time.</p> <p>The common context indicator 17 (agricultural holdings) describes farm structures by looking at the total number of farms, ha of UAA and AWU in each EU Member State. It also presents the distribution of farms according to their physical (in UAA) and economic (in SO classes) size (see http://ec.europa.eu/agriculture/cap-indicators/context/2014/c17_en.pdf). This indicator takes a step further by also considering the farm specialisation (according to the typology provided in Annex IV of Commission Implementing Regulation (EU) 220/2015) and presents index values.</p>
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