

## ALMA MATER STUDIORUM – UNIVERSITÀ DI BOLOGNA DIPARTIMENTO DI ECONOMIA E INGEGNERIA AGRARIE

## FEASIBILITY STUDY ON THE SETTING UP OF A PLATFORM FOR DATA & INFORMATION EXCHANGE FOR THE EUROPEAN FRUIT & VEGETABLE MARKET

# EUROPEAN COMMISSION DG AGRICULTURE AND RURAL DEVELOPMENT Tender N° AGRI / 2008-G4-01

**EXECUTIVE SUMMARY** 

This study was requested by the European Commission – D.G. Agriculture and Rural Development (Tender N $^{\circ}$  AGRI / 2008-G4-01) and executed by:

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## **Executive summary**

- 1) This study is a feasibility analysis of a European platform for data and information exchange for the European fruit and vegetable market. The specific tasks of the study are defined in details by the Tender specifications as follows:
  - Task 1- Legal assessment: compatibility of the platform with European Union law, and national law on competition and data privacy, if relevant.
  - Task 2 Collection of existing data and methodology: overview on existing data collection and processing mechanisms in at least 3 of the main producing Countries.
  - Task 3- Technical requirements of the platform: technical requirements for the platform

Task 4- Conclusions and recommendations: feasibility of the platform implementation.

Each task has covered a single distinct chapter of the study.

- 2) A platform model has been elaborated according to the basic characteristics and the objectives indicated by the Tender specifications, and by analysing the functioning of the statistic and information systems of five organisations: one producer organisation (PO), two associations of producer organisations (APOs), and two inter-branch organisations (IBOs) operating in the fruit and vegetable industry of five EU Member States (Belgium, France, Hungary, Italy, and Spain). Then, the feasibility and the economic sustainability of the model have been assessed by taking into account technical, legal and financial criteria.
- 3) The platform objectives indicated by the Tender specifications have represented the most important assumptions in the designing of the model. Through the platform, they intend to make the fruit and vegetable industry:
  - a) reach a higher degree of effectiveness in managing the available resources and in preventing market crises through the sharing of information among the associations of European producers to the widest possible extent;
  - b) establish a more balanced competitive position for producers, given their weakness within the fruit and vegetable supply chain with respect to wholesalers, processors and distributors.

Additional assumptions regard the compliance of the platform with privacy and competition law, the statistical significance of produced data, the security of the information systems, and a partnership scheme based on voluntary adhesions and on the mutuality of the data exchange among the partners. Finally, it must be underlined that the reference platform model, including technical solutions and estimated costs, are based on the assumption that the IT system will not be developed, hosted and managed by EC and/or DG AGRI facilities.

4) To avoid and correct the structural market crises, it is necessary to detect and forecast for each species and variety the long-term trends of the domestic supply, the import, and the demand in the domestic and foreign markets. On the other hand, in the short-term, crisis management requires a systematic monitoring of the current campaign by providing data and forecasts on aspects like: production volumes, loss of products related to weather, harvest scheduling, level of stocks, in-coming shipments of imported products, producer and retail prices, and consumers' seasonal preferences with respect to qualitative aspects of products. The management of short-term measures needs that the information system be particular effective to carry out with rapidity and correctness the whole proceeding of collecting,

processing, and releasing the data. Decisions regarding market withdrawals, accumulation of stocks, and no harvesting should be taken as soon as possible, when a crisis shows his first symptoms, and imply immediate costs face to uncertain benefits, consequently the timing necessary to obtain a correct information supporting them is crucial. All these elements concur to define the data scope of the platform (see the table below).

## Data scope of the platform

Types of data		Description	Frequency of data release
1	Data on crop areas	<i>Fruit crops:</i> invested area amount by region, species, variety, age, density, and ripening period of plantations, areas of new plantings and cut plantations.	Annual
		Vegetables: evolution of plantings according to the different species and varieties into the main production regions.	Annual
2	Production forecasts	<i>Early production forecasts:</i> elaborated on the basis of the data on the crop areas and on information about the progression of flowerings and the development of fruit in the different production regions.	Annual (before the starting of the harvest)
		Quantitative estimations of expected production: based on sample analyses.	2 weeks (during the harvest)
		Harvest scheduling: resulting from the agro-meteorological conditions of the harvest season in the major production regions with information on the expected harvest spikes.	Weekly
3	Harvest monitoring of the most perishable products	Information on the progression of the harvest by species and variety in the major production regions, including: weather conditions, phytosanitary and vegetative state of crops, progress of the harvest, quality of products.	Weekly
4	Data on final production	Amount of final production and yields in the different regions by species and variety.	Annual (post- harvest)
-		Information about the quality of final production in the different regions by species and variety.	Annual (post- harvest)
5	Data on stocks for storable fresh products	Information by species and variety on the quantity stocked in the most important storage facilities.	Weekly
6	Data on producer prices	Data on producer prices by species, variety and quality class of products from the most important reference markets.	Weekly
7	Monitoring the retail market	Data on sales from the main European supermarket chains by species and variety, including information on quality classes, origin of products, type of packaging, brands, and prices.	Weekly
8	Data on consumption	Data by species and variety on consumers' purchases in the different Countries including: amount and value of purchases, average consumer prices, annual distribution of purchases, annual consumer price variations, distribution of purchases and average prices by marketing channel, distribution of purchases by region.	Annual
		Data on total and average consumption of fruit and vegetables by cultivar in all the major EU and extra-EU consumer Countries	Annual
9	Monitoring of the imports flow	Data on import sourced from the official statistics in the different Member States by species.	Annual
		Monitoring of the imports from the monthly official bulletins issued by the Member States.	Monthly
		Information about the in-coming shipments of products from third party Countries by species and variety, in the major ports.	Weekly

	Types of data	Description	Frequency of data release
10	Data on exports	Data on intra-EU and extra-EU exports of fruit and vegetables sourced from the official statistics issued by the different Member States by species.	Annual
		Monitoring of the intra-EU and extra-EU exports trade from the monthly official bulletins issued by the Member States	Monthly

Source: own elaboration.

5) The organisations of the fruit and vegetable sector, which are to become partners of the platform, will act either as the main suppliers of data and information, and as the exclusive users. For this reason, the partner organisations must be able to guarantee minimum standards as regards the types of data provided (species and varieties, cropped areas, production forecasts, imports/exports flows, prices, consumption, etc.), the covered geographical area, the timing of data delivery, and the quality of the methodologies used to collect and process the information. The partners will be able to access the platform by following specific procedures, which comply with the technical and the legal requirements of the information system. Any access will take place through the platform Web Portal. The data will be transferred by suppliers through automatic procedures. Data queries will be possible according to the criteria defined in the Table below.

Main criteria		Subcriteria		
1	Species and space	Cultivated species and varieties		
		Geographical areas		
	Timeline	Historical (historical series)		
2		Ongoing (data on the current campaign)		
		Production forecasts (short term forecasts and long term trends)		
3	Types of data	Types of data as listed in the data scope Table (p. v), taking also into consideration the frequency of the data uploading and release.		
Sources over the entire				

## **Data organization**

Source: own elaboration.

The technical requirements of the platform have been set out according to the indications of the Tender specifications.

- 6) Considered the nature of the platform's processed data, and the platform's transnational dimension, a series of conditions must be fulfilled in order to comply with the European competition law. In particular:
  - a) The platform shall be managed by inter-branch organisations (IBOs), since the European law provides regulations for these entities which are compatible with the transnational dimension.
  - b) The creation of the platform should be communicated to the European Commission. The platform could not be operative before the Commission acknowledgment (that is within two months from the communication), and the statement of compatibility with

the competition law. The Commission may assess the compatibility of the platform with the European law at any time, during its operation.

- c) The European platform shall not cause any forms of market partitioning within the Community, shall not impair the proper functioning of, create distortions of competition, involve the establishment of prices or eliminate competition, under pain of being incompatible with European rules. In that case, the recognition of the platform operator shall be terminated.
- d) In this view, an in-depth analysis should be developed on a case-by-case basis, taking into account all the relevant issues to comply with the EU competition rules and regulations. The outcome of the analysis should assess the general impact of the platform operation on competition. With reference to the implementation strategy described below, the evaluation of the collusion risk should take place during the platform's Conceiving and Launch phases, when the potential participants and the monitored markets of fruit and vegetables will be identified. During this phase, for each of the markets monitored by the platform, a structural assessment of the collusion risk based on theoretic and empirical approaches (see § 3.9.2) should be performed. The final outputs of the structural assessment should include: (i) the identification of specific markers for a behavioural screening (see § 3.9.2) of the markets; (ii) the elaboration of a user code and good practices for the participating operators to avoid the misuse of the platform data; and (iii) the definition, in collaboration with the anti-trust authorities, of a security procedure for suspected or ascertained illicit use of the platform information. A regular behavioural screening of the markets and the operators involved should start with the Implementation phase and the functioning on the platform. This screening should activate the security procedure if signs of a possible collusive conduct are detected. The data collected by the platform should allow periodical revisions of the structural assessment so that the behavioural screening may be intensified according to a possible increase of the collusion risk. The public authorities could also evaluate the opportunity of a more direct involvement in the initiative to use the platform for their antitrust activities in the fruit and vegetable industry.
- 7) As far as privacy law is concerned, some caution should be adopted:
  - a) Data sensitiveness should be assessed (common data versus sensitive data). As a matter of fact, sensitive data should be kept separately, considering that sensitive data will require a higher degree of security.
  - b) The subjects which provide data to the platform must be informed about the goals and purposes of data collection. Personal data may be processed only for legitimate purposes, and according to agreed procedures.
  - c) Suppliers must voluntary sign up (in writing) an agreement allowing for their data processing, including information about the above mentioned objectives and purposes, control, access and updating procedures.
  - d) The subjects involved in the data treatment must be prior authorized, and they must act according to the instructions received (this applied to both the person responsible for and the processors of the data treatment).
  - e) A control system must be established to prevent data access from subjects other than the legitimate person responsible for the treatment. Legitimate processors need to issue a treatment policy, and obtain the prior consent from the data owner. Processors must then identify the way and the timing of data storage. Data will have to be kept as long as required by the particular treatment they have been collected for.

8) The platform costs have been calculated according to the investment and the operation profiles. The initial investment cost is summarised in the Table below.

Description	N°	Months	Price (EUR)	Total (EUR)
Manager	1	3.0	7,000	21,000
Data treatment	2	3.0	4,200	25,200
Legal matters	1	3.0	5,600	16,800
Administration	1	3.0	4,200	12,600
Assistant	2	3.0	2,800	16,800
Location		3.0	5,000	15,000
IT				204,400
Total investment				311,800
Depreciation (5 years)				62,360

### Initial investment necessary to set up the Platform

Source: own elaboration.

The operating costs are displayed below.

### Estimated operating costs of the platform

Type of cost	EUR/year		
Depreciation	62,360		
Personnel	571,200		
Location	60,000		
Subtotal	693,560		
Overheads (30%)	208,068		
Total	901,628		

Source: own elaboration.

Both types of costs have been calculated under the assumptions that all factors and services needed to implement the platform are purchased and evaluated at market price, and that the platform is a private initiative. Besides the investment and operating costs, the potential partners may also need to sustain adaptation costs to meet the platform standards, and to implement specific software allowing for the automatic transfer of data from their information systems to the platform. The amount of these adaptation costs varies for each partner, because it depends on the specific characteristics of the single information systems, and cannot be evaluated at this stage. The amount of the platform costs to be shared among the partners may act as a financial barrier for the participation of many organisations; however, this barrier may be lowered if the number of partners is high since the very beginning of the initiative.

9) The skills required to manage the platform include - besides a knowledge of the fruit and vegetable industry - competence and skills in IT technology, statistics, and in legal and administrative matters. A committee representing the partner organisations must be established as well. In this committee, the public institutions may be represented too.

10) The feasibility of the platform has to cope with two main issues: the implementation costs and the role of public institutions. The role and responsibility of the actors involved (whether public and/or private) has been analysed according to a conceptual framework. The analysis shows that the platform effectiveness could be strengthened by a synergism between the public and the private institutions. A common project can be developed on the basis of common interests in the development of an effective and reliable information system, operating in the fruit and vegetable industry. The release of incentives in favour of the platform partners is compatible with the role of the public institutions in this initiative, considering that incentives are not only of monetary kind, but may also be of an organisational nature. From this perspective, an implementation strategy is proposed as in the following Table.

#### Implementation strategy and role of public institutions

#### Phase 1: conceiving

Objectives: discuss the platform concept according to objectives, means, organisation, priorities and alternatives.

Means: participatory approach; technical design,.

Role: define the public objectives and priorities; define potential partnership, by considering private and public institutions; define intervention limits.

Actions and measures: define the preliminary platform design(s).

#### Phase 2: launch

Objectives: inform potential participants; incite potential participants to express, intentions, alternatives, and options

Means: communication; participatory approach.

Role: launch the discussion about the platform design in the professional environment; manage the participatory approach with the interested organisations; assign technical and managerial leadership.

Actions and measures: create discussion opportunities; collect adhesions from potential participants; group participants according to motivations and technical capacity (leaders, followers); define technical and financial needs of the platform according to the participatory approach; define partnership and institutional settings with partners (including financial participation); assign leadership and detailed tasks to partners.

### Phase 3: implementation

Objectives: implement the agreed platform project.

Means: constitute the task force (leaders); define incentives (moral and material, if any is foreseen)

Role: assign incentives; follow and orient the platform implementation.

Actions and measures: Participate in the administration board; asses result and effectiveness; propagate the results.

#### Phase 4: growth

Objectives: increase effectiveness; improve methodology; increase services.

Means: communication; positive emulation; targeted incentives (followers); sponsorship.

Role: supervise the platform operation; define strategy and objectives according to the development of the platform.

Actions and measures: participate in the administration board; asses result and effectiveness; propagate the results

#### Phase 5: long term

Objectives: cover peripheral areas; join structural development; financial autonomy.

Means: communication; positive emulation.

Role: supervise the platform operation; define strategy and objectives according to the development of the platform. Actions and measures: participate in the administration board; asses result and effectiveness; propagate the results

Source: own elaboration.