

## **1. INTRODUCTION**

### **1.1 What is the name of your organisation?**

INRA - Institut National de la Recherche Agronomique - France

### **1.2 What stakeholder group does your organisation belong to?**

Other

#### **1.2.1 Please specify**

Research Institute, with a department devoted to genetics and plant breeding

### **1.3 Please write down the address (postal, e-mail, telephone, fax and web page if available) of your organisation**

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## **2. PROBLEM IDENTIFICATION**

### **2.1 Are the problems defined correctly in the context of S&PM marketing?**

No

### **2.2 Have certain problems been overlooked?**

Yes

#### **2.2.1 Please state which one(s)**

- The first global problem that shall be defined is the global food crisis and the climatic change and the role the EU agricultural and forestry productions can play to contribute in solving these issues. - The question of the genetic progress is fully missed. Many available references and data support the fact that absence of regulation oriented genetic progress drives to a dramatic decrease, in quantity and in quality, of the agricultural and forestry productions (Brisson et al 2010 for cereals (Field Crops Research 119, 201-212), Van der Heijden and Roulund, 2010 for forage crops). (S.A.G. van der Heijden and N. Roulund, 2010. Genetic Gain in Agronomic Value of Forage Crops and Turf: A Review. In C. Huyghe (Ed) Sustainable Use of Genetic Diversity in Forage and Turf Breeding, p 247-260) - In the problems definition, the Commission argues that the main current focus of the regulation is only based on productivity. However, the current legislation allows member states to define specific national VCU criteria in the view of varieties registration. In France, VCU testing integrates the evaluation of varieties adaptation to agro environmental constraints and diversified cultural practices that favor the decrease of inputs use (testing without pesticide, without irrigation, diseases and pests genetic resistance characterization ...).

### **2.3 Are certain problems underestimated or overly emphasized?**

Overestimated

#### **2.3.1 Please indicate the problems that have not been estimated rightly**

- Costs issue: overestimated. European Commission argues that the second of the 3 problems that shall be solved is related to the cost of the implementation of the regulation in the Member states. However at the French level, the implementation of the regulation (registration and certification) does not represent 3% of the value of the sector but about 0.8%. This efficiency of the French system is partly due to the current implementation of the "under supervision controls" for VCU and certification. This should be clearly and thoroughly measured. Moreover, a percentage does not mean anything per se. It must be compared to the service it provides. In the present case, it should be compared to the added value of registration and certification to seed markets and possibly to agricultural products markets. The report published by the British Society of Plant Breeders and entitled 'Economic impact of Plant breeding in the UK clearly showed the strong economic benefits of variety improvement.

## 2.4 Other suggestions or remarks

- In the problems definition the lack of efficiency of the current systems is not proved. As regard the current economic results the systems are efficient (France is the 2d country for exportation of S&PM in the world and the 1st producer at the EU level). - In all the document of the Commission, the definition of the word "innovation" is mistaken for the word "creativity". The word innovation should be based on the definition first given by Schumpeter as early as 1911 (in his first edition of Theory of economic development) and which is the basis of most innovation economists who consider that an innovation is a novelty which reaches the market and meets its expectations, thus contributing to an increase of the economic activity. - In the impact assessment document, there is confusion between the notion of biodiversity and genetic resources or genetic diversity. Biodiversity includes both the variation among species and the variation within-species. The variation among species may be measured at various scales, such as  $\alpha$ ,  $\beta$  and  $\gamma$  diversity considering both the within and between fields diversity (see de Bello et al, 2010 Journal of Vegetation Science 21, 992-1000). It may also be considered on the basis of the functional traits (functional biodiversity). Although there are some examples of relationship between species diversity and genetic diversity within species (Vellend and Geber, 2005, Ecology Letters 8, 767-781), both levels of diversity may be regarded independently. Plant breeding will mainly influence within-species genetic diversity (either through cultivated genetic diversity or ex situ genetic resources) while agronomic practices will have a crucial impact on the biodiversity in agricultural and forestry production systems - The document of the Commission does not take into account the point of view of the end-users, i.e. food industry and consumers.

## 3. OBJECTIVES OF THE REVIEW

### 3.1 Are the objectives defined correctly in the context of S&PM marketing?

No

### 3.2 Have certain objectives been overlooked?

Yes

#### 3.2.1 Please state which one(s)

- The following objective has been missed: productivity, quality and regularity of the productions. This objective shall be placed in 1st position in the view to be consistent with the expected role of the EU agricultural and forestry productions in the global food security and thus in avoiding food crisis. This collective responsibility still must be considered as crucial. - The issue of the innovation is overlooked. It shall not be placed at the third place after biodiversity and sustainability. Indeed, innovation is the key issue that enables to reach the objectives of sustainability and the enrichment of biodiversity. - The issue of traceability shall be at the same level as the question "healthy high quality S&PM". Indeed, this issue is a component of the quality of the S&PM. - The general objectives address the question of the information to the users. This information shall be qualified as reliable, impartial, official and available for the whole chain of users (from the farmers to the consumers). - The specific objective based on the improvement of the competitiveness shall be clarified. Indeed, in the frame of the international market / exchanged, based on equivalence systems, the role of official certification for S&PM and health is crucial especially for the EU whose agricultural economy is mostly based on exports to third countries. - The contribution of varieties to the environmental issues must be a general concern and not only limited to biodiversity. This must be part of a general approach of the common agricultural policy which has to supported agricultural systems which provides environmental services. This was underlined by the European Parliament in a recent vote (25 May 2011). Varieties must be a tool in this general policy, and, thanks to improvement of disease resistance or tolerance to abiotic stress, they can contribute to this objective.

### 3.3 Are certain objectives inappropriate?

Yes

#### 3.3.1 Please state which one(s)

- The specific objective related to the costs and the administrative burden is not well defined. The

objective is not to reduce these costs but to optimize, adapt and proportionate as regard the main objectives dealing with food and sanitary security, environmental risks, agricultural and forestry production sustainability, biodiversity protection... - The difference made between the global and the specific objectives is not appropriate. For example the question of competitiveness of the S&PM is not a specific objective but a general one in the frame of the common agricultural policy.

**3.4 Is it possible to have a regime whereby a variety is considered as being automatically registered in an EU catalogue as soon as a variety protection title is granted by CPVO?**

No

**3.5 If there is a need to prioritise the objectives, which should be the most important ones? (Please rank 1 to 5, 1 being first priority)**

**Ensure availability of healthy high quality seed and propagating material**

4

**Secure the functioning of the internal market for seed and propagating material**

5

**Empower users by informing them about seed and propagating material**

2

**Contribute to improve biodiversity, sustainability and favour innovation**

3

**Promote plant health and support agriculture, horticulture and forestry**

1

**3.6 Other suggestions and remarks**

- As regard the question 3.4, it is not acceptable to consider a variety automatically registered as soon as it is protected by a PBR. Indeed, first, the registration is a public authorisation for marketing through a compulsory regime whereas the PBR is a private voluntary right. Second, PBR examination is only based on DUS testing and then, for agricultural crops, the proposed system would conduct to loosing benefit of VCU evaluation. This benefit is currently useful for the whole food supply chain. - As regard question 3.5, the first objective must be: productivity, quality and regularity of agricultural and forestry productions. Consequently, this objective is classified n°1 and then the ones ranked from position n°2 as proposed. - In the objective 4 (« contribute to improve biodiversity, sustainability and favour innovation ») innovation must be placed before sustainability and biodiversity which can not be promoted without innovation. On this basis we propose to rank this objective at the same level as “productivity, quality and regularity of agricultural and forestry productions”.

**4. OPTIONS FOR CHANGE**

**4.1 Are the scenarios defined correctly in the context of S&PM marketing?**

No

**4.2 Have certain scenarios been overlooked?**

Yes

**4.2.1 Please state which one(s)**

There should be a scenario that enables the improvement of the current system through technical and financial optimisation (and not reduction) to integrate to the objectives of the current legislation (innovation, productivity, quality and regularity of the production) the implementation of the environmental issues. This can be done through the official environmental evaluation of the varieties and their sustainable use, i.e. considering in the same process the economic performance of varieties (productivity and quality) and the environmental performance (resistance to abiotic stress and to diseases and pests). - The scenarios of evolution proposed by the

Commission are exclusive and the most appropriate answer shall be based on the combination of different aspects of each scenario.

#### **4.3 Are certain scenarios unrealistic?**

Yes

##### **4.3.1 Please state which one(s) and why**

Scenarios 3, 4 and 5 in their present structure and description are not realistic

#### **4.4 Do you agree with the reasoning leading to the discard of the "no-changes" and the "abolishment" scenarios?**

Yes

#### **4.5 Other suggestions and remarks**

The issue of innovation shall not be mistaken with the notion of creativity. The increase of the varietal flow through the increase in the number of varieties available for the users does not guarantee the actual diversity of the offer. Indeed this offer shall be officially characterized in conformity with the objective of the users' protection.

### **5. ASSESSMENT OF OPTIONS**

#### **5.1 Are the impacts correctly analysed in the context of S&PM marketing?**

No

#### **5.2 Have certain impacts been overlooked?**

Yes

##### **5.2.1 Please state which one(s)**

Weakening of the suppliers, operators position on national, EU and international levels. - Impact on food security, - Impact on environmental aspects as regard sustainable genetic resistance against diseases and pests, - Agronomical impact and impact of the evolutions on the production systems.

#### **5.3 Are certain impacts underestimated or overly emphasized?**

Overestimated

##### **5.3.1 Please provide evidence or data to support your assessment:**

- The loose of mandatory certification for agricultural crops could lead to the reinforcement of possible phytosanitary and sanitary (at human level) problems - The positive impact of continuous and officially recognized genetic improvement is supported by many research works. Some examples are: - Brisson et al., 2010, Field Crops Research 119, 201-212, on bread wheat documenting the changes in grain yield over the last decades and the positive contribution of the continuous increase of yield potential of registered cultivars - Alhemeyer et al, 2008, Options Méditerranéennes 81, 43-47. This evaluation of grain yield of barley cultivar registered over the last four decades showed that 50% of the actual increase in grain yield was due to genetic improvement officially calidated by the registration procedures. This study also showed that, based upon microsatellite markers the genetic diversity slightly decreased on the four-rows cultivars and largely increased for the two-rows cultivars. - van der Heijden and Roulund, 2010. In Sustainable Use of Genetic Diversity in Forage and Turf Breeding, p 247-260 documented the continuous genetic gain of registered varieties of several perennial forage species

#### **5.4 How do you rate the proportionality of a generalised traceability/labelling and fit-for-purpose requirement (as set out in scenario 4)?**

5 = not proportional at all

#### **5.5 How do you assess the possible impact of the various scenarios on your organisation or on the stakeholders that your organisation represents?**

**Scenario 1**  
Very beneficial

**Scenario 2**  
Fairly beneficial

**Scenario 3**  
Very negative

**Scenario 4**  
Very negative

**Scenario 5**  
Neutral

**5.5.1 Please state your reasons for your answers above, where possible providing evidence or data to support your assessment:**

-The answer given above does not enable to take into account the possibility to propose a combinatory scenario. - Scenario 1, cost recovery is beneficial because Inra provides part of the staff to GEVES for variety evaluation. - Scenario 2, co-system is fairly beneficial because of a cost reduction, but this is only possible for more VCU tests run by private breeders and this is already partly done. - Scenarios 3 and 4 induce a high level of flexibility and very low level of progress. And this is very undesirable for a research institute whose a main goal is to contribute to innovation and progress of economic and environmental performance in agriculture. - Scenario 5 is neutral as the centralisation is only related to a minor administrative sector. A centralized decision making for variety registration including both DUS and VCU would require a strong organisation and would not yield any cost benefit

**6. ASSESSMENT OF SCENARIOS**

**6.1 Which scenario or combination of scenarios would best meet the objectives of the review of the legislation?**

A combination of scenarios

**6.1.1 What are your views with regards to combining elements from the various scenarios into a new scenario?**

Scenario 1 (with enforced environmental value and data exchange among countries when relevant and improved data analysis) combined with Scenario 2 (more trials run by private breeders under official supervision) and minor issues of scenario 5 (harmonized DUS tests and optimized management of reference variety collection) Based upon Scenario 1, and reinforcing the evaluation of cultivation use value and environmental value by sharing information and data among countries when candidate varieties are under evaluation in various countries, including as much as possible trials run by private breeders for VCU under official supervision and more data analysis to emphasize the variety x environment x agronomic practices which documents the adaptation and provides key elements for farmers' choice, it is proposed to improve the system of fees with fees being more proportionate depending on the economic importance of the species. Taking part of the scenario 5, it is suggested to have a harmonization of DUS tests, an optimized management of reference collection for DUS tests through sharing among member states. The regular update of the common catalogue will be improved through an administrative management by CPVO.

**6.1.1 Please explain the new scenario in terms of key features**

**6.2 Do you agree with the comparison of the scenarios in the light of the potential to achieve the objectives?**

No

**6.2.1 Please explain:**

- On the basis of the previous answers as regard the missing or misdefined objectives (innovation, productivity, quality, regularity of the productions) and the overlooked scenario based on the current technically and financially optimised ( current objectives completed by the environmental issues) the comparison of the scenarios in the light of the objectives is hedged. - On the basis of the analysis of the Commission scenario 4 appears to be the most positive whereas on the basis of our arguments, the scenario 4 does not best enable to achieve the objectives as we propose them. The alternate scenario proposed in 6.1.1 would maximise the benefit for productivity, quality and regularity of agricultural and forestry production, health and quality of seed and plant material, information of users, reduction of costs, improvement of farmers choice based upon a reliable and independent information, innovation, competitiveness of the breeders. It will also simplify the procedures and optimise uses of resources. For the other items, it is at least as efficient as one of the other scenarios (as it takes the best of them). As such, it contributed to harmonisation as weel as scenario 5. The creativity is encouraged as in scenario 3. The reduction of costs and administrative burden for public authorities is as in scenarios 1 and 2 and the functioning of the internal market is secured as in scenario 1 and 5.

**7. OTHER COMMENTS**

**7.1 Further written comments on the seeds and propagating material review:**

**7.2 Please make reference here to any available data/documents that support your answer, or indicate sources where such data/documents can be found:**

