DIVERSIFOOD is a European H2020 project facing the challenge of promoting a new way of thinking about agriculture. Its ambition is: “embedding crop diversity and networking for local high quality food systems”.

Through multi-actor and transdisciplinary approaches based on relevant cases, DIVERSIFOOD aims to develop:

- Relevant locally developed adapted innovations
- New biodiversity management models
- New approaches to plant breeding and diversity management
- More diversity in crops, varieties and populations
- Diverse healthy and tasty food products and market valorisation
- Original research and communication tools to connect activities and people

What do we mean by food diversity? Nine key-concepts were developed together with all partners involved in DIVERSIFOOD. These definitions integrate practical and theoretical ideas, and natural science and social science perspectives. These common key-concepts are important as the partners have a diversity in backgrounds and hence different perspectives on the meaning of words. Together these key definitions will help facilitate research and communication among partners and with other stakeholders.
Diversified food system

Definition
The food system is considered from field to fork promoting diversified crop varieties, animal breeds and end products, considering a diversity of consumers, diets and needs according to diverse environmental, socio-economic and cultural contexts in Europe.

Diversified food systems show different models, but all focus on sharing added value among stakeholders within networks and regional organizations. They offer conditions to consumers to choose and enjoy a broad range of locally adapted, tasteful, nutritional and healthy, as well as sustainably produced food.

Food quality

Definition
The concept of food quality has its roots in traditional produces from locally adapted crops. Food quality covers a wide range of traits that are defined in the context of sustainable diet and local food culture and that cover:

- ethical and social values
- nutritional, healthy components
- taste characteristics
- the respect of raw material and natural processes

Sustainable food systems

Definition
Sustainable food systems are preserving diversity in resources for future generations, respecting human values and environmental richness. Sustainability applied to food system is a complex concept since it covers:

- production, processing, distribution, consumption and waste disposal activities
- social, legal, economic, ecological, cultural, ethical values

Food democracy

Definition
Food democracy refers to the opportunity of people to decide in food matters (production, processing and consumption) and to actively participate in shaping their food systems. As such, it is a rights-based concept but also entails active engagement.

It covers empowerment and responsibility of all actors involved around food-related practices (breeding, farming, processing, food preparation, distribution and consumption), creating and promoting “food culture”.
Co-evolutionary processes

Definition
A co-evolutionary process is a dynamic integration of various concomitant processes which can cover several dimensions:
- Agro-ecosystem dimension in which plants co-evolve, due to genetic diversity, within their specific environments and according to human practices.
- Social dimension in which agriculture and culture co-evolve due to a bio-cultural diversity resulting in new solutions to societal challenges, integrating ethical dimensions (e.g., respect for integrity of the plant), and stimulating local development with “low tech, low input, accessible populations”.
- Other dimensions (legal, institutional, economic) that have an important impact in shaping the practices within the food system.

How DIVERSIFOOD deals with...
- Promoting breeding techniques that respect and enhance the natural ability of the plant to adapt.
- Exploring mechanisms of social innovation to introduce values about diversity and living processes within food chains and breeding.
- Promoting social learning among all actors involved, as a way to reproduce knowledge hand-in-hand with practice.
- Looking at ways to reshape the legal, institutional and economic environments according to both environmental and social sustainability challenges.

Trans-disciplinarity and paradigmatic shift

Definition
Trans-disciplinarity is the integration of different types and sources of knowledge coming from the interaction between different researchers and actors of the food chain (farmers, processors, cooks, craftsmen), and the capacity of this new shared pool of knowledge to produce more than the sum of the parts.
Paradigmatic shift is to consider different sources of knowledge equally and to share them, integrating objectives for environmental and social sustainability from a holistic perspective.

How DIVERSIFOOD deals with...
- Bringing together different types of knowledge and acknowledging and respecting plurality as a richness.
- Considering ethics and practical usefulness as important as scientific truth and the idea of change towards sustainability as needed in every field.
- Working from field to plate through a multi-actor approach.
- Stressing the importance of proximity, interaction, trust and shared knowledge between consumers and producers.

Collaborative, participative and action research

Definition
A way of undertaking together experiments / surveys / studies which are decentralized in terms of ownership, responsibilities, and raising issues, and aiming for concrete applications to answer to societal challenges.

How DIVERSIFOOD deals with...
- Acting together in a collaborative way. It is about sharing:
  - Concepts
  - Objectives
  - Means and processes
  - Identification of new questions and critical issues
  - Organisation of actors and institutions participating in the process.
  - Ways of implementation and dissemination.

Community management of agro-biodiversity

Definition
Groups of actors organized in networks that collectively manage seeds of population varieties for adaptation, breeding and conservation, and the associated knowledge to maintain and develop diversity of crops and food.
They share a common goal in seed management and local supply chains development and are engaged in developing new practices to cope with the current challenges of sustainability and food quality.

How DIVERSIFOOD deals with...
- Experimenting with collective dynamic management of agro-biodiversity on-farm, considering both formal and informal seed systems.
- Analysing and defining collective organization of food chains aimed at enhancing and valorizing local agro-biodiversity.
- Promoting collective organization of local markets, increasing awareness of public and policy makers, and designing labels to recognize locally bred seed.
Resilience In the literature:

At the level of the agro-ecosystem, SOLIBAM had proposed a first definition

Resilience is the capacity of an ecosystem to respond to a perturbation by resisting damage and recovering quickly. A resilient system will reorganize while undergoing change so as to still retain essentially the same function, structure, identity, and feedbacks. Thus, resilience is linked to the adaptive capacity of a system in the face of change.

Within DIVERSIFOOD, resilience concept is extended to the whole food system, including economic, social, political and cultural dimensions. Thus, resilience of the food system calls for adaptive capacities of the food chain at the agro-ecological and socio-economic level to provide sufficient high quality food and to maintain its cohesion over time.

How DIVERSIFOOD deals with resilience

Building resilient food systems means to connect all 8 previous concepts:

Co-evolutionary processes (Concept # 8) within systems (such as the food system) support dynamic integration of several concomitant processes which cover several dimensions (economic, social, environmental, political, cultural and legal).

A food system is resilient when it fulfills its function of providing food based on diversity (Concept # 1), food quality (# 2) and sustainable development (# 3), within local and global conditions of food democracy (# 4) and community management of biodiversity (# 5).

To reach all these goals, DIVERSIFOOD is promoting collaborative, participative and action research (# 6) and trans-disciplinarity and a paradigmatic shift (# 7).

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ITAB • Institut technique de l’Agriculture Biologique
RSP • Réseau Semences Paysannes • Association pour la Biodiversité des Semences et Plants dans les Fermes
IT • INRA Transfert

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ORC • Organic Research Centre

Switzerland
FIBL • Forschungsinstitut fur Biologischenlandbau Stiftung
PSR • ProSpecieRara

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