THEORY CONTAINS 2 TYPES OF CARDS: DEFINITIONS & QUESTIONS – EACH ONE RELATES TO ONE OF FOUR CATEGORIES.

I. PURPOSE

Purpose relates to the question: *What do we need the digital transition for?*

II. VALUES

Digital transition should reflect values such as *trust*, *fairness*, *equity*, *power*, *sovereignty*, and *care*.

III. PRINCIPLES

A number of principles should guide this process. These are *collaboration and sharing*, *accessibility*, *people-centred design*, *sufficiency*, and *circularity*.

IV. ENABLERS

The key enablers to support the process include *capacity building*, an effective *digital ecosystem* & *data governance*, *infrastructure* & *connectivity*, and an *adequate funding*.

D

DEFINITION 1 OF 22

Resilience

The ability to cope with shocks and keep moving towards systemic changes. Digitalisation should increase the economic, social, environmental, and geopolitical resilience.

Relates to *Purpose*
THEORY

D

D

DEFINITION 2 OF 22

Economic Resilience

Allows actors to cope with market changes adapting production and consumption. Digitalisation should enhance economic resilience through supporting economic performance of farms, reducing costs of production, diversifying income sources, creating job opportunities, and attracting new businesses to rural areas.

Relates to *Purpose*
THEORY

D

D

DEFINITION 3 OF 22

Social Resilience

The ability of farmers and rural communities to maintain trust in the face of social disruptions, such as conflicts and demographic changes. Digitalisation should help by strengthening community-based institutions, participatory decision-making, and social safety nets while also rebalancing inequalities.

Relates to *Purpose*
THEORY

D

D

DEFINITION 4 OF 22

Environmental Resilience

Entails coping with climatic changes, increasing biodiversity, and ensuring nature protection. Digitalisation can strengthen this dimension of resilience through early warning and natural resource management systems.

Relates to *Purpose*
THEORY

D

D

DEFINITION 5 OF 22

Geopolitical Resilience

The ability of a state or region to withstand disruptions related to international security, supply chain stability or dependency on imported technology and raw materials. Digitalisation can support geopolitical resilience by enabling farmers to diversify their production, explore new markets, and innovate in response to global challenges.

Relates to *Purpose*
THEORY

D

D

DEFINITION 6 OF 22

Green Transition

A fundamental shift in production and consumption patterns is needed to live within planetary boundaries. Digitalisation can enable a fair and inclusive green transition. It can ensure systems management that increases agricultural efficiency and productivity through more accurate application of feed, water, energy, and pesticides.

Relates to *Purpose*
THEORY

D

D

DEFINITION 7 OF 22

Digital Citizenship

The ability to participate actively in society with the help of digital technology. The key aspects of digital citizenship are digital rights and privacy, access, literacy, engagement, empowerment, and the right not to go digital and still thrive.

Relates to *Purpose*
THEORY

D

D

DEFINITION 8 OF 22

Well-being

Quality of life and opportunities to contribute meaningfully to the world. Digitalisation should contribute to farmers' and rural communities' well-being by improving work conditions, access to services and infrastructure, and strengthening social ties.

Relates to *Purpose*
THEORY

D

D

DEFINITION 9 OF 22

Trust

Confidence, reliability and mutual faith in digital systems, technologies, organisations, and processes. Digital infrastructures and services should be safe by design, transparent, neutral and cybersecure, and respect users' privacy and data security.

Relates to *Values*
THEORY

D

DEFINITION 10 OF 22

Fairness & Equity

Encompasses fair pricing, payment terms, and relationships in the supply chain. Fairness is also about the equal distribution of benefits of digital technologies and access to digital technologies.

Relates to *Values*
THEORY

DEFINITION 11 OF 22

Power

The ability to influence and shape processes, decisions, and outcomes related to digital technologies and their implementation. It empowers farmers and rural communities to have a voice, agency, and control over their own digital transition.

Relates to *Values*
THEORY

DEFINITION 12 OF 22

Digital Sovereignty

Digital sovereignty implies reducing dependency on companies or platforms that gather large amounts of data, leading to the accumulation of power and knowledge, often outside rural and farming communities or even national jurisdiction.

Relates to *Values*
THEORY

DEFINITION 13 OF 22

Care

Nurturing and protecting the well-being of farmers, rural communities, and the commons. Care implies an active consideration of possible negative outcomes and inequalities of digitalisation

Relates to *Values*
THEORY

DEFINITION 14 OF 22

Collaboration & Sharing

Digital transition should be a collaborative effort involving farmers, rural communities, the private sector, governments and tech companies. This can be achieved through forming networks, sharing knowledge, data, practices, tools, and infrastructure, as well as promoting cross-border networking and collaboration.

Relates to *Principles*
THEORY

DEFINITION 15 OF 22

Accessibility

Digital tools and services should be accessible and affordable to all farmers and rural communities, regardless of their location, income or the size of their operation.

Relates to *Principles*
THEORY

DEFINITION 16 OF 22

People-Centred Design

The design and use of digital tools and services should be based on the needs, preferences, and engagement of farmers and rural communities in development. Digital tools or services should be simple and easy to use and address their unique challenges.

Relates to *Principles*
THEORY

DEFINITION 17 OF 22

Sufficiency & Circularity

Digital tools and services should be manufactured, designed and implemented in a way that is environmentally, socially, and economically sustainable. They should bedurable, modifiable and recyclable. Sufficiency in digitalisation implies a frugal use of digital tools, and favouring the quality of solutions over quantity.

Relates to *Principles*
THEORY

DEFINITION 18 OF 22

Digital Ecosystem

Includes farms, public administration bodies, private platforms that facilitate data collection, storage, analysis, and sharing. Data can enable accurate decision-making, increase productivity, and improve the quality of products and services. Data can empower farmers and rural communities to identify opportunities for development.

Relates to *Enablers*
THEORY

DEFINITION 19 OF 22

Data Governance

Encompasses interoperability rules, data quality standards, regulations on processing, and sharing. It should encourage farmers to share with researchers, administrations, and private sector actors. A multifunctional approach to data governance enables the development of new applications or services for farmers and the demonstration of novel use cases.

Relates to *Enablers*
THEORY

D

DEFINITION 20 OF 22

Capacity Building

Farmers and rural communities should have skills to use digital tools and services. Building this capacity involves education, training, and targeted advisory services. The target group for capacity building includes farmers, educators, advisors, and local administrators seeking knowledge or keeping up with technological development.

Relates to *Enablers*
THEORY

D

D

DEFINITION 21 OF 22

Infrastructure & Connectivity

Effective digital governance also requires investment in technological infrastructure (i.e. hardware, software) and network infrastructure capable of handling the increased data requirements for the new digital technologies to operate effectively.

Relates to *Enablers*
THEORY

D

D

DEFINITION 22 OF 22

Funding

High investment and ongoing maintenance costs of digital transition can often be a significant hurdle for farmers and rural communities. Adequate funding is necessary to support the deployment of digital technologies and infrastructure, provide training, facilitate research and innovation, and enhance cooperation.

Relates to *Enablers*
THEORY

D

INSTRUCTIONS FOR QUESTIONS

This activity helps you discuss the purpose behind digital transition in your area, put into context the values and principles to guide a transition, and reflect on the enablers that will support your digital transition process.

SETUP

DURATION .....approx. 2 hours
PARTICIPANTS..... 2 to 6 people
CONTENT ..... 46 questions
MATERIALS.....summary sheet

GAMEPLAY

1. Divide *Purpose*-cards among participants.
2. Each participant answers a single question while others add their own views.
3. Summarise the discussion by addressing the *black question cards*. Record key points on the *Summary Sheet*.
4. Proceed to *Values*, *Principles*, and *Enablers*. Each player selects two questions from these sections.
5. Repeat *Steps II* and *III*.

Q

QUESTION 1 OF 46

Where can digitalisation make a difference in our area?

THEORY → PURPOSE

Q

Q

QUESTION 2 OF 46

Which costs and dependencies can digitalisation help reduce over time?

Relates to *Economic Resilience*
THEORY → PURPOSE

Q

Q

QUESTION 3 OF 46

In what way can digitalisation improve governance in our area?

Relates to *Social Resilience*
THEORY → PURPOSE

Q

Q

QUESTION 4 OF 46

What kind of environmental disruptions can digitalisation help us prepare for?

Relates to *Environmental Resilience*
THEORY → PURPOSE

Q

Q

QUESTION 5 OF 46

Which natural resources in our area can digitalisation help manage more effectively?

Relates to *Environmental Resilience*
THEORY → PURPOSE

Q

Q

QUESTION 6 OF 46

What are our main dependencies?

(raw materials, energy, technologies, etc.)

Relates to *Geopolitical Resilience*
THEORY → PURPOSE

Q

QUESTION 7 OF 46

How can digitalisation facilitate the transition towards sustainable agriculture in rural areas?

Relates to *Green Transition*
THEORY → PURPOSE

QUESTION 8 OF 46

What barriers do our farmers and rural communities face in engaging with the digital society?

Relates to *Digital Citizenship*
THEORY → PURPOSE

QUESTION 9 OF 46

Which services and infrastructure in our area can be improved through the use of digital technologies?

Relates to *Well-being*
THEORY → PURPOSE

QUESTION 10 OF 46

How can we integrate values and principles in our digital transition strategy/process?

THEORY → VALUES & PRINCIPLES

QUESTION 11 OF 46

How do we build and sustain trust in digital systems, technologies, actors, and processes in our areas?

Relates to *Trust*
THEORY → VALUES

QUESTION 12 OF 46

What types of incentives for data sharing would be most effective to build trust, given our situation?

Relates to *Trust*
THEORY → VALUES

QUESTION 13 OF 46

Where can the fears and concerns of farmers and rural communities be addressed?

(i.e. in which networks and/or spaces)

Relates to *Trust*
THEORY → VALUES

QUESTION 14 OF 46

What are the peer-to-peer support groups available for farmers and rural communities to test digital tools?

Relates to *Trust*
THEORY → VALUES

QUESTION 15 OF 46

Who are the trusted actors in this process?

(e.g. independent advisory systems)

Relates to *Trust*
THEORY → VALUES

QUESTION 16 OF 46

Are there mechanisms in place to foster trust within digital ecosystems?

(regular exchanges, common objectives, transparency)

Relates to *Trust*
THEORY → VALUES

QUESTION 17 OF 46

How can we ensure an equitable distribution of digitalisation benefits across all stakeholder groups?

Relates to *Fairness & Equity*
THEORY → VALUES

QUESTION 18 OF 46

How can we achieve a fair distribution of power between farmers, rural communities, and technology/data owners?

Relates to *Power*
THEORY → VALUES

QUESTION 19 OF 46

What steps can we take to decrease dependency on some actors and foster autonomy?

Relates to *Power*
THEORY → VALUES

QUESTION 20 OF 46

Which actors in the digital ecosystem do we excessively rely on? What measures can be implemented to reduce these dependencies?

Relates to *Digital Sovereignty*
THEORY → VALUES

QUESTION 21 OF 46

What opportunities exist to collaborate with EU-based or local technology companies, technology clusters, or innovation centers?

Relates to *Digital Sovereignty*
THEORY → VALUES

QUESTION 22 OF 46

What kind of open-source (i.e. with original code freely available and modifiable) tools and solutions can we use?

Relates to *Digital Sovereignty*
THEORY → VALUES

QUESTION 23 OF 46

What are the possible negative outcomes of digitalisation that we need to consider?

Relates to *Care*
THEORY → VALUES

QUESTION 24 OF 46

What are the ways to minimise the digital divide?

Relates to *Care*
THEORY → VALUES

QUESTION 25 OF 46

Which marginalised or vulnerable groups may be negatively impacted by digitalisation?

Relates to *Care*
THEORY → VALUES

QUESTION 26 OF 46

What are the possible ways of granting access to digital solutions for the excluded?

Relates to *Care*
THEORY → VALUES

Q

QUESTION 27 OF 46

How can we promote collaboration and sharing within our community and with external actors during the digital transition?

Relates to *Collaboration & Sharing*
THEORY → PRINCIPLES

Q

QUESTION 28 OF 46

What kind of local heritage and knowledge could we capture with the help of digital technologies?

Relates to *Collaboration & Sharing*
THEORY → PRINCIPLES

Q

QUESTION 29 OF 46

How can we facilitate the sharing of digital tools to make them accessible to farmers and communities in our area?

(i.e. drones, sensors, machinery, etc.)

Relates to *Collaboration & Sharing*
THEORY → PRINCIPLES

Q

QUESTION 30 OF 46

How can we promote networking and collaboration on digital issues within our public administration?

Relates to *Collaboration & Sharing*
THEORY → PRINCIPLES

Q

QUESTION 31 OF 46

How can we ensure that digital tools and services are accessible and affordable to everyone in our areas, regardless of their location or economic status?

Relates to *Accessibility*
THEORY → PRINCIPLES

Q

QUESTION 32 OF 46

Who are the vulnerable groups in our area and how can we take into account their needs?

Relates to *Accessibility*
THEORY → PRINCIPLES

Q

QUESTION 33 OF 46

What are the specific needs of farmers and rural communities in our area and how can digital technologies meet those needs?

Relates to *People-Centred Design*
THEORY → PRINCIPLES

Q

QUESTION 34 OF 46

What can we do to support the involvement of our communities in the design of tools and services?

Relates to *People-Centred Design*
THEORY → PRINCIPLES

Q

QUESTION 35 OF 46

How can we assess the sustainability of essential digital technologies for our farmers and rural communities?

Relates to *Sufficiency & Circularity*
THEORY → PRINCIPLES

Q

QUESTION 36 OF 46

How can we mitigate the environmental impact of digital technologies and promote a more frugal use in our area?

Relates to *Sufficiency & Circularity*
THEORY → PRINCIPLES

Q

QUESTION 37 OF 46

How can the key enablers support our digital transition strategy/process?

THEORY → ENABLERS

Q

QUESTION 38 OF 46

Who are the key partners and stakeholders in our digital ecosystem?

THEORY → ENABLERS

Q

QUESTION 39 OF 46

What are the key data standards, rules and regulations that are critical for our digital ecosystem?

THEORY → ENABLERS

Q

QUESTION 40 OF 46

What are the main barriers in infrastructure and connectivity in our area?

THEORY → ENABLERS

Q

QUESTION 41 OF 46

Which initiatives and networks can we mobilise to build the digital capacity of farmers and rural communities in our area?

THEORY → ENABLERS

Q

QUESTION 42 OF 46

Which institutions or actors can deliver ‘train-the-trainer’ programmes?

THEORY → ENABLERS

Q

QUESTION 43 OF 46

How should advisors be trained so that they pass on their knowledge?

THEORY → ENABLERS

Q

QUESTION 44 OF 46

What are the possibilities to mobilise funding from the available EU, national funding schemes, and private sector in our area?

THEORY → ENABLERS

Q

QUESTION 45 OF 46

Which funding rules need to be more flexible to accommodate specific needs ?

(e.g. payments for digital services, public procurement rules, etc.)

THEORY → ENABLERS

Q

QUESTION 46 OF 46

Which current funding instruments/ schemes are not fit for purpose anymore in the context of digital transition?

THEORY → ENABLERS