

Soil Education and Advisory Services

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Outline

- Benefits of increasing Soil Education in Advisory Services
- Challenges of Soil Management and Advisory Services
 - Attributes of Soil Management
 - Attributes of EU (Soil) Advisory Service
 - Attributes of Land Managers
- Effective Advisory Activities
- General Actions to Improve Soil Advice
- Possible ESP Actions

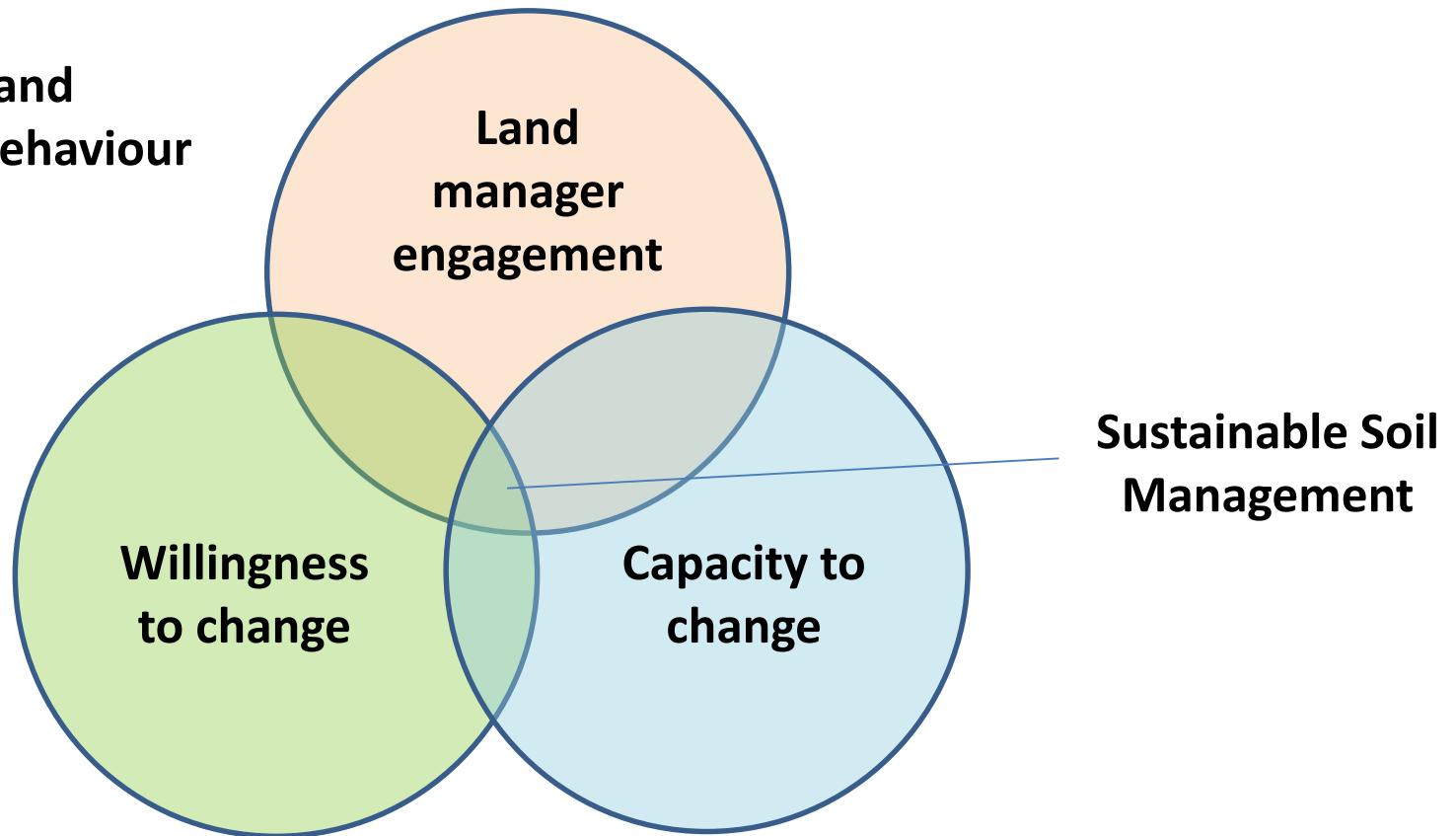
Background

- SmartSOIL project (EU FP7)
- RECARE project (EU FP7)
- SoilCare (EU H2020)
- SOLINSA (EU FP7)
- AGRIDEMO (EU H2020)



Benefits of Soil Education within Advisory Services

Changing land
manager behaviour



Balanced policy mix – regulations, incentives and **advice**

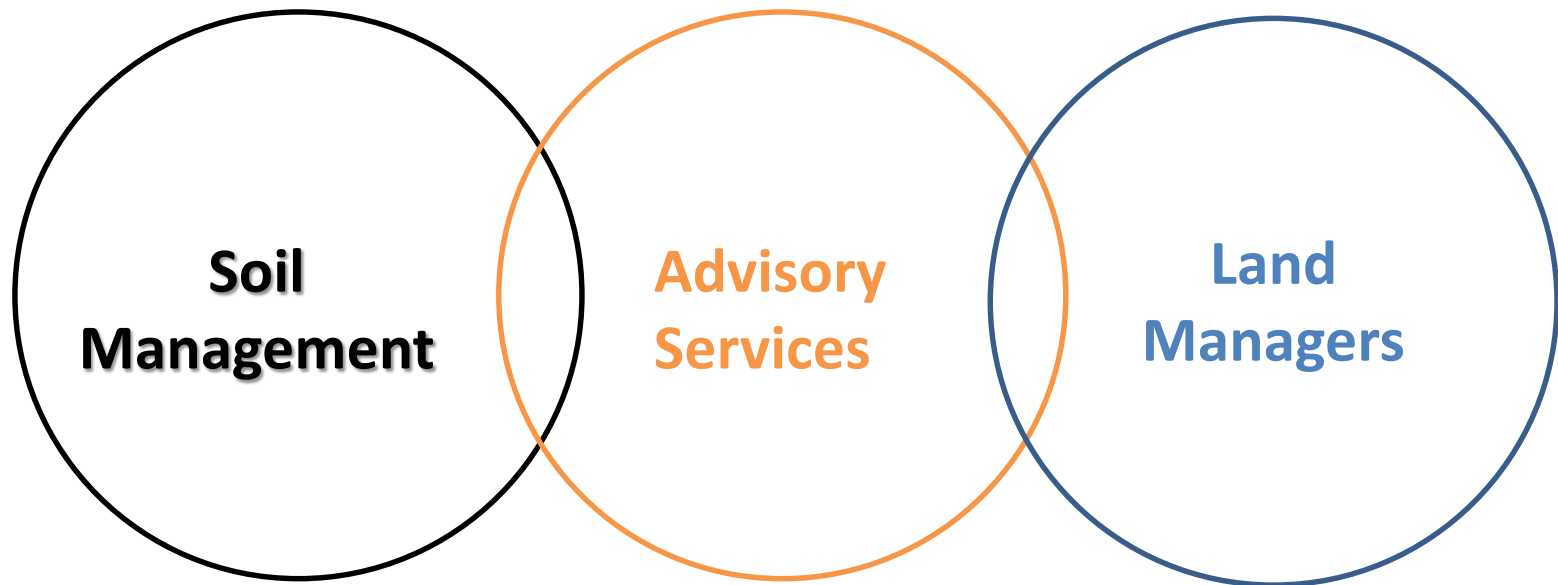
Benefits of Soil Education within Advisory Services

The overall **goals** of the ESP are to:

- To support governmental and other actions in the context of the five Pillars: **soil management, promotion of soil-related knowledge and awareness**, soil research and soil information and harmonization
- **To promote sustainable soil management (SSM)**, maintain soil functions and support efforts to reverse soil degradation in Europe
- **To improve the networking between existing networks and initiatives on soil**, and fill gaps

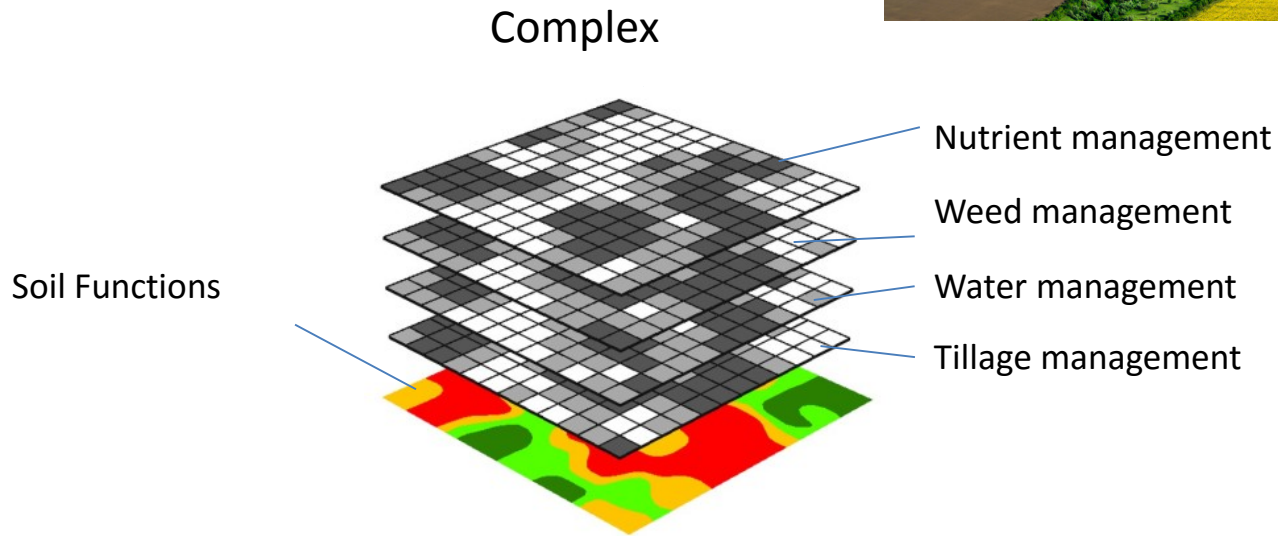
Delivering Soil Advice

Challenging: Complex, Dynamic and
 Evolving



Attributes of Soil Management

1) Soil management is part of a wider farming system management



Advice needs to integrate into existing advice and advisory programmes and avoid single issues

Attributes of Soil Management

2) Soil management is highly site and cropping system specific



- **Prescriptions** for soil management with wide applicability unlikely
- Advice has different requirements **depending on the extent of change involved**
- Advisory services should seek to apply **principles** and **adapt** to local situations

Adaption

-

~~**Not Adoption**~~

Requires advisers to support farmer LEARNING

Attributes of Soil Management

- Benefits and negative impacts of soil management can be **invisible** and/or take a **long time** to become apparent.

Advisers need to find and provide evidence using appropriate metrics so farmers can weigh up the risks

- Providing convincing **economic evidence** for some soil management practices is challenging.

Advisers need to be equipped to provide this evidence with research data, farmer case studies, demonstration plots

Attributes of Soil Management

Optimal soil management can refer to:

- systems/approaches (conservation agriculture, precision farming, fertility) (strategic)
- a set of best management practices
- detailed field fertilizer recommendations – (tactical)

Sustainable soil management is also a loose concept interpreted differently

agroecological farming
sustainable intensification
climate-smart agriculture
conservation agriculture

There is no single message or set of advice

Attributes of EU Advisory Service

- **Advisory systems are fragmented** – pluralistic agricultural advisory services providers are:

Public sector

Private
companies

Levy Boards

NGOs

Agricultural
Chambers

Attributes of EU Advisory Service

Privatization has reduced the public extension services

- Free face to face advice at the farm level is often no longer available
- Increasingly information and advice is provided by actors with commercial motivations



Can be tensions between private and public sector goals

Need to include the private sector in ESP discussions?

Attributes of EU Advisory Service

Quality of services with respect to soil is highly variable.

- Formal **public** advisory services are used primarily for accessing subsidies and complying with regulations rather than supporting productivity/sustainability
- Public extension services can be poorly resourced, low capacity, with poorly trained advisers
- **Private** sector services better trained/equipped in relation to maximising yield and specialist crop production - may not consider other soil functions or long term issues

Attributes of Land Managers

- No longer 'typical farmers' - producers, smallholders, large commercial farm managers, contractors....



"The guy who is doing the contract farming is definitely on a year to year basis, and he couldn't care about organic matter levels."

Examples of Effective Activities

- Farmer groups and networks emerging to fill the gaps in delivery and topics
- Groups of farmers + advisers + researchers facilitated and supported to explore ways of enhancing soil productivity and sustainability
- Integrated approaches - mandatory measures and incentives with advice to support voluntary adoption of soil protection measure



#rootsnotiron



**A clear solution
for farmers**
CATCHMENT SENSITIVE FARMING

General Actions

Strengthening capacity development of the advisory services - governance, management, organization, adviser competences

Research (soil science and agricultural) has an important role to play in advisory services by:

- providing advisers with research outputs /application relevant to soil in **usable formats** suited to application at a farm level.
- create channels allowing advisers to communicate **land manager needs** to researchers.



ESP Action

- **A European advice support portal for soil** - due to different contexts may be more effective at regional level
- **Conference** - discuss/develop ESP extension framework (with policy makers, academics, advisory service representatives, private sector) and/or to bring together practitioners/advisers to share experiences, best practice examples?
- **Focus Group** –a selected group of experts meet and address objectives on the topic of improving effectiveness of advisory services/extension for sustainable for soil management.
- **Networking** by link to H2020 projects (produce DST, manuals etc), Thematic networks, EIP Focus Group and Operational Groups

ESP Actions

- **Activities to ensure buy-in/involvement of private sector/agribusiness** responsible for land management and advice at large scales (e.g. Unilever, Kelloggs). Could they be represented on the working group? Invited to sponsor a conference/workshop?
- **Activities to involve advisory organisations like GFRAS/EUFRAS** – run/contribute to joint workshops, conferences
- **Activities to link soil science /agricultural research communities with advisory organisations** - run joint workshops



**There is a HUGE potential to improve
Soil Education in Advisory Services!**



Let's Give Soil A Voice!



Thank You!



Questions and Ideas Welcome!

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