



## Farm level indicators for new topics in policy evaluation

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# FLINT Project Partners



# Background

- Challenges facing agriculture changing
- “Sustainable intensification”
- Emphasis on climate change
- In response - CAP has evolved
  - Income stability still important but also greening
- When policy changes – information needs change – data must keep up

# Objective

- To establish a tested data infrastructure with up to date farm level indicators for the monitoring and evaluation of CAP and to contribute to a better targeting of CAP and other policy measures
- Use FADN to develop indicators that capture the multidimensional nature of the sustainability concept
  - Economic, social, environmental (innovation)

# Advisory board



# Indicator frameworks

- A lot done – more to do
- A wide range of indicator frameworks exist:
  - Millennium development goals
  - FAO, OECD and Eurostat indicators of sustainable development
  - IRENA project interactions between agriculture and environment
  - AE footprint effectiveness of environmental schemes
- National initiatives
- To date no EU-wide harmonised farm-level indicators

# Why FADN

- Interest is at the farm-level
- Need a data source – economic, social, environmental
- Indicators must be credible
  - Objective, verifiable and empirical data
- BUT where possible link to existing data

## 5 key questions of FLINT

- ***What is desirable?*** What are the policy evaluation needs ?
- ***What is feasible?*** given cost, farmers' cooperation and the data collection method
- ***What is a feasible pilot network?*** What and how is tested in a pilot network and what ICT infrastructure?
- ***What is useful?*** Demonstrate how useful the new indicators are for policy evaluation
- ***What is acceptable?*** What are acceptable scenarios for the future data-infrastructure in an era of tight budgets?



# Approach

- Assess policy evaluation needs
- Evaluate existing indicator frameworks
- Define indicators and data variables
- Involve sector to assess feasibility
- IT infrastructure for data collection and exchange
- Pilot data collection on 1000 farms in the EU
- Use farm level indicators in policy analysis
- Recommendations about future data collection

## Where are we now

- Review of policy evaluation needs completed
- Review of pre-existing indicators completed
- “Wish-list” of indicators
  - Initially 587 – reduced to 214 – now 33 topics
- Stakeholder consultation on-going
  - Useful and feasible
- Objective of refining further

# Environmental Sustainability Indicators

E1: Greening: Permanent grassland

E2: Greening: Existing/created areas of EFA

E3: Semi-natural farmland areas

E4: Pesticide usage (Pesticide risk score)

E5: Nutrient balance (N, P) (farm-gate balance)

E6: Soil organic matter in arable land

E7: Indirect energy usage

E8: Direct energy usage

E9: On-farm RE production

E10: Farm management to reduce nitrate leaching

E11: Farm management to reduce soil erosion

E12: Use of Legumes

E13: GHG emissions per product

E14: GHG emissions per ha

E15: Carbon sequestration in FADN

E 16: Water usage and storage

E 17: Irrigation practices

# ECONOMIC/INNOVATIVE

El 1: Innovation (CIS)

El 2: PRODUCING UNDER A LABEL or BRAND

El 3: TYPES OF MARKET OUTLET

El 4: Past/Future duration in farming (Survival propensity)

El 5: Efficiency field parcel (LPIS)

El 6: Modernisation of the farm Investment

El 7: Insurance (events outside control of farm) - also to include personal (disability) & farm (building structure) insurance

El 8: Share of output under contract with fixed price delivery contracts

El 9: Risk exposure (non-agricultural activities)

# Social Sustainability

**S1: Advisory services provided to the farm**

**S2: Education and training**

**S3: Ownership/management**

**S4: Social engagement/participation**

**S5: Employment and working conditions**

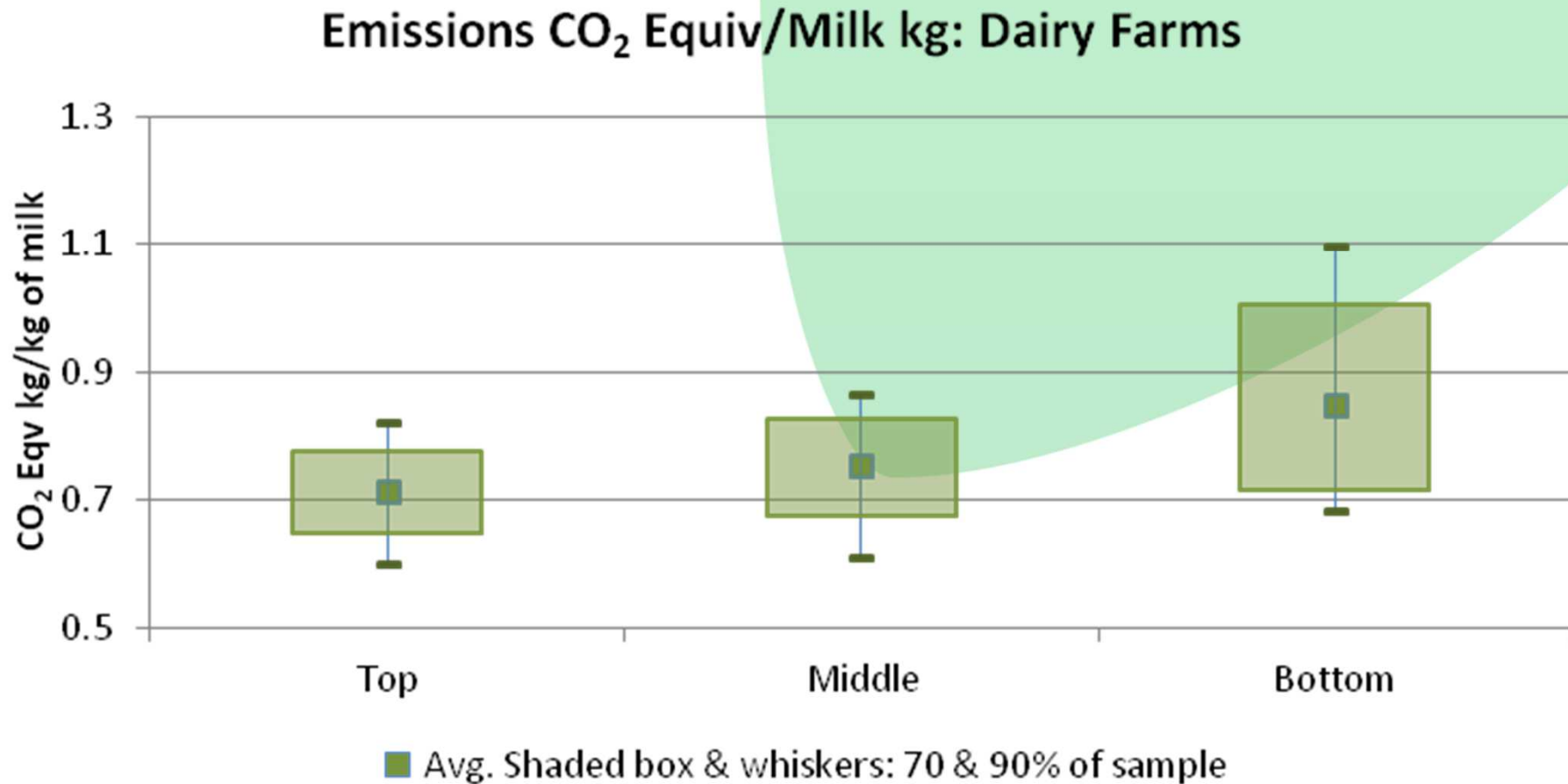
**S6: Quality of life/Decision Making**

**S7: Social diversification: improving the image of farmers/agriculture in local communities**

## Next steps

- Finalise stakeholder analyses
- Refine list of indicators
- Full operationalization of indicators (data elements and equations)
- Prepare pilot data collection
  - Data collection to begin in 2015(?)

# What might the final product look like? Example results from Ireland



# Benchmark report

<b>People</b>				
Percentage cows in the meadow	▼		22	
Health costs	▼		110	
Labour input per 1000 kg milk	▲		5	
<b>Planet</b>				
Pesticide use, kg active substance	▼		1	
Pesticides environmental pressure points	▼		0	
N surplus from farming, kg per ha	▲		204	
F surplus from farming, kg per ha	▼		25	
N surplus at soil (including mineralisation, kg per ha)	▬		183	
Energy use (MJ per cow)	▲		5,080	
Use of water (tap) (m3 per cow)	▼		24	

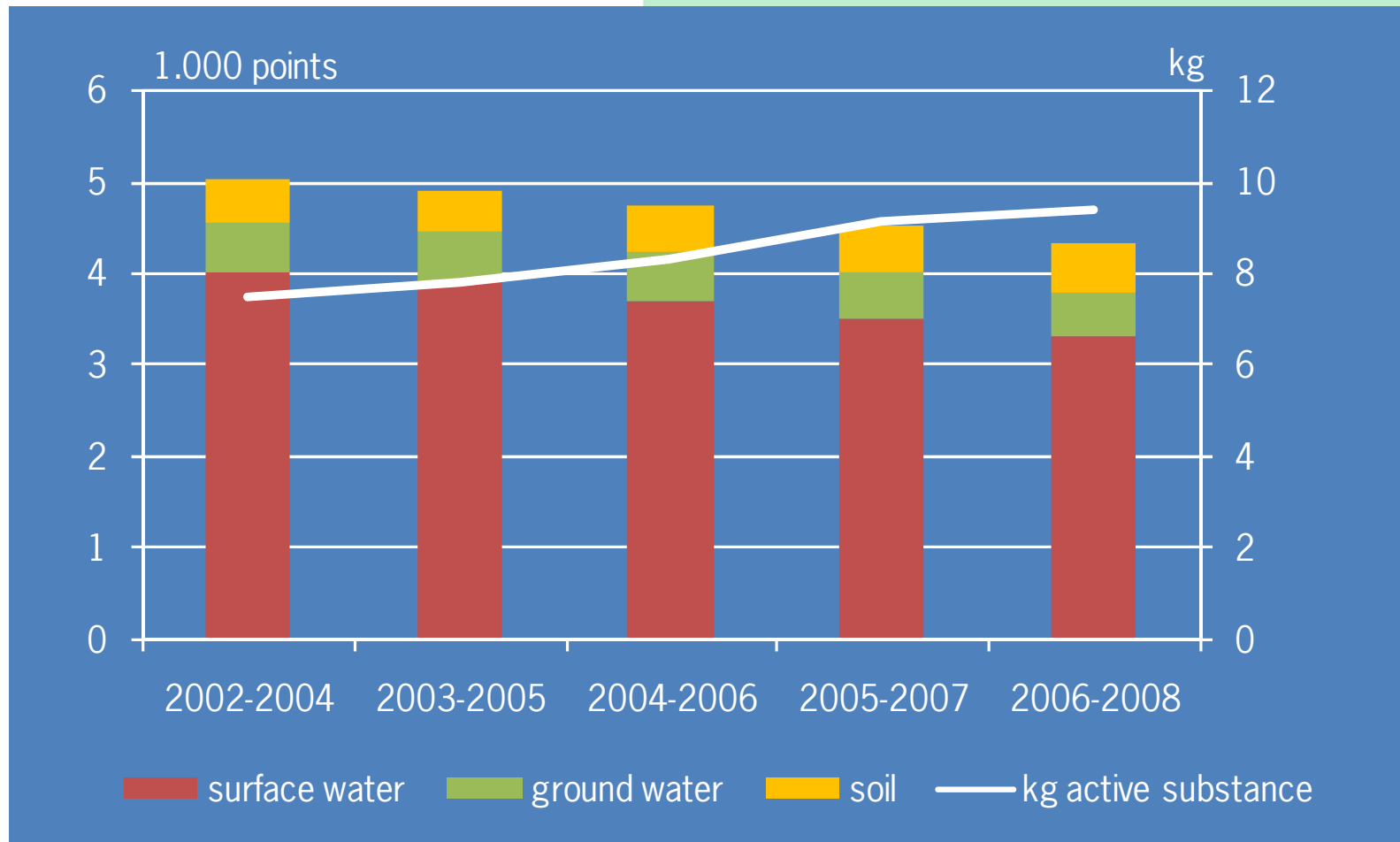
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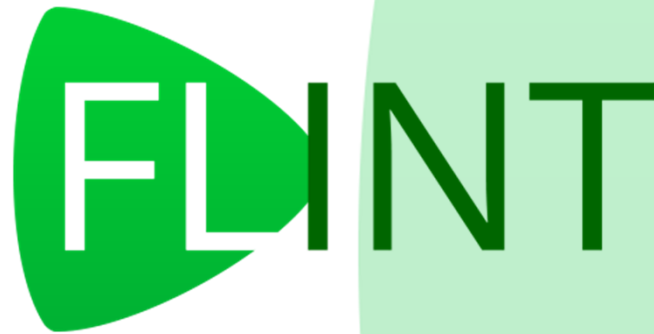
# Theme: Crop protection

*indicator: pesticides use and environmental impact points for arable farms*



# Questions for you

- Your comments on the proposed indicators
- National Initiatives
- Your experience with collecting some of the proposed indicators



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