SCENARIO PLANNING: ISPRA’S FIRST EXPERIENCE WITH CIRCULAR ECONOMY

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Area 3: Scenarios and data

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WHAT WE ARE TALKING ABOUT

1. Purpose
2. Workflow
3. System analysis and simplification
4. Scenario generation
5. Next steps
Create environmental scenarios to try to forecast changes in environmental realms.

CHALLENGES:
- Lack of data
- Complex topics
- No fixed methodology
WORKFLOW

System analysis and simplification
- Scenario field identification
- Search for key factors
- Key factors analysis
- Data collection

Scenario generation
- Scanning of the field of possible assumptions
- Sets of probable assumptions
- Generation of forecasts by scenarios

Interpretation, communication and completion
- Scenario perfection
- Definitions of strategies
SYSTEM ANALYSIS AND SIMPLIFICATION

The starting point
SYSTEM ANALYSIS AND SIMPLIFICATION

Structural analysis flow diagram

**FISM**: Fuzzy Interpretive structural modeling

**FMICMAC**: Fuzzy-MICMAC (Matrice d’impacts croisés multiplication appliquée à un classment)
STRUCTURAL ANALYSIS RESULTS

Environmental pressure FISM
STRUCTURAL ANALYSIS RESULTS

Environmental pressure factors classification (FMICMAC)

II quarter
Influential variables
ENHANCED TREND IMPACT ANALYSIS

Hybrid method in which a surprise-free forecast is modified to take into account experts' perceptions about how future events may change the surprise-free forecast.

- **Input:**
  - Time series of interest
  - Set of key (unprecedented) future events, their probabilities and their impacts

- **Baseline extrapolation with Damped Holt’s method**
NEXT STEPS

- Carry out an economical analysis
- Improve indicators database and dataset
- Promote sectoral studies to collect impact factors
- Collect experts’ opinions and perfect the results
Thank you for your attention