

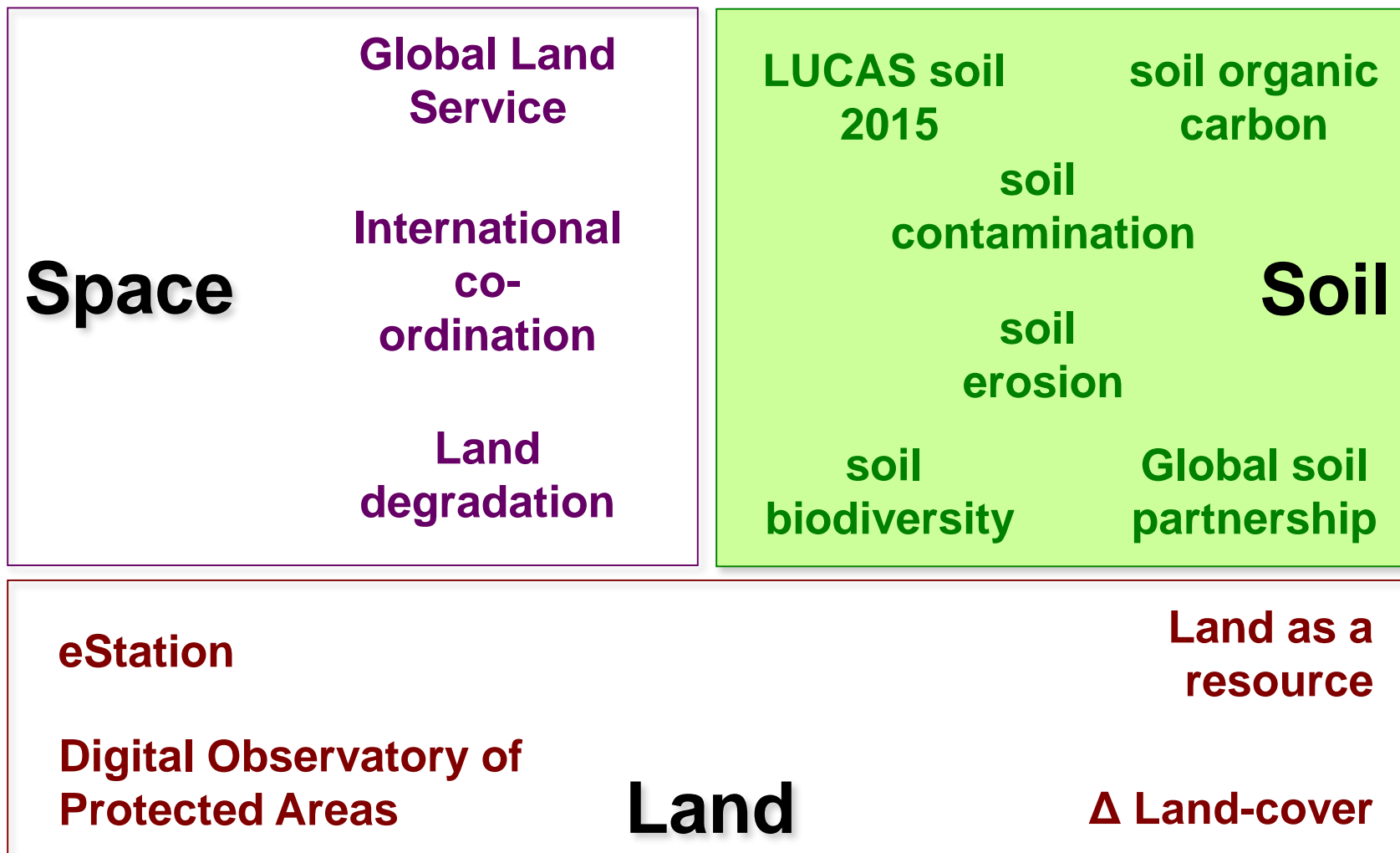


# Soil Activities in JRC 2015-2016

*Ana B. Paya Perez  
European Commission  
Land Resources Management Unit - DG JRC.H.05*

*Serving society  
Stimulating innovation  
Supporting legislation*

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# Soil 2016



**Soil  
Ecosystem Services**

**Soil Biodiversity**

**Soil Organic Carbon**

**Soil Awareness**

**Threats to soil**

**Soil Contamination**

**ESDAC  
European Soil  
Data Centre**

**Soil Erosion**

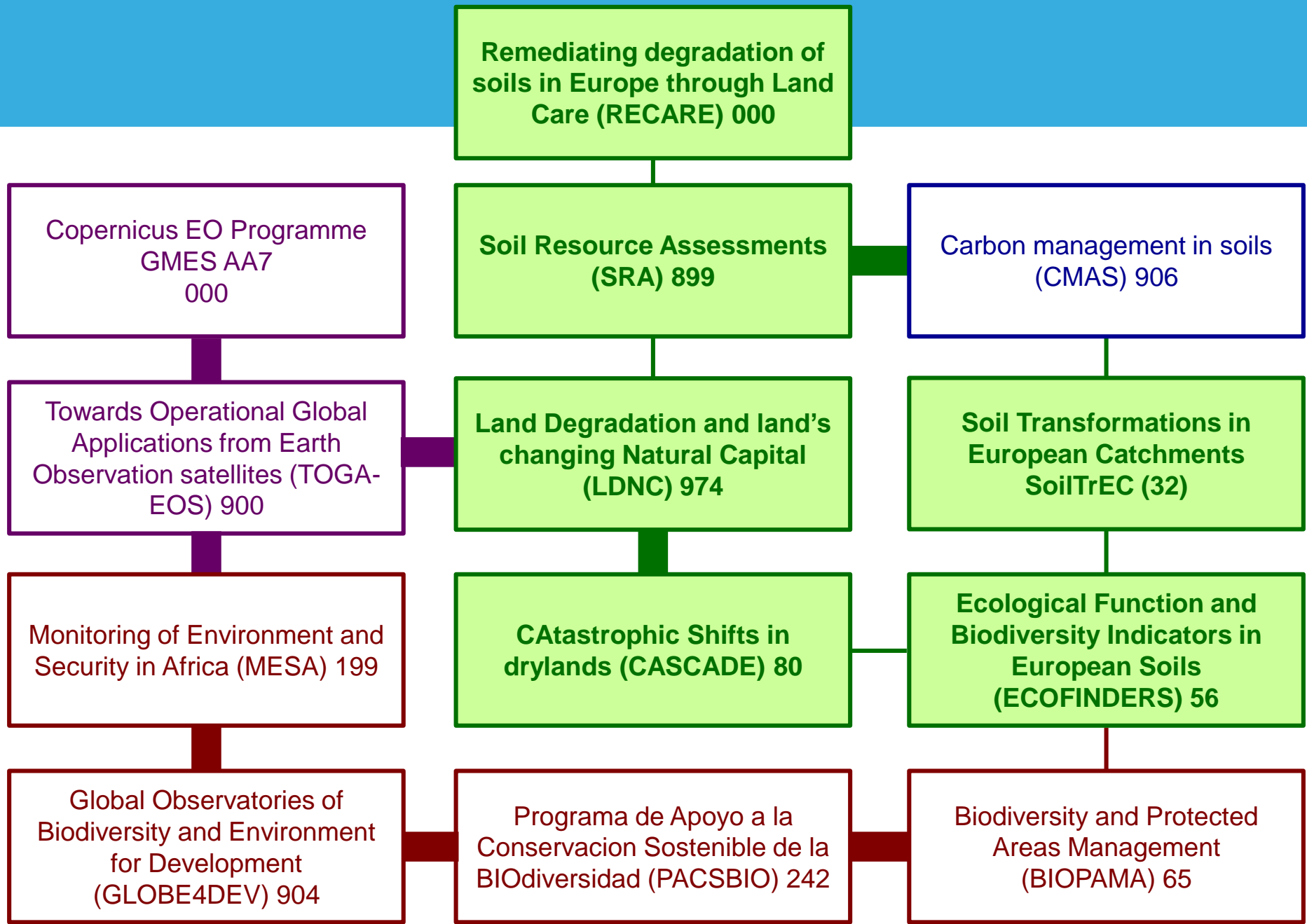
**Networks  
Global and European  
Soil Partnership**

**EIONET Soil**

**ESBN –European  
Soil Bureau  
Network**

**LUCAS soil  
2015**

**Danube 250.000**



**Remediating degradation of soils in Europe through Land Care (RECARE) 000**

**Copernicus EO Programme GMES AA7 000**

**Soil Resource Assessments (SRA) 899**

**Carbon management in soils (CMAS) 906**

**Towards Operational Global Applications from Earth Observation satellites (TOGA-EOS) 900**

**Land Degradation and land's changing Natural Capital (LDNC) 974**

**Soil Transformations in European Catchments SoilTrEC (32)**

**Monitoring of Environment and Security in Africa (MESA) 199**

**CAstrophic Shifts in drylands (CASCADE) 80**

**Ecological Function and Biodiversity Indicators in European Soils (ECOFINDERS) 56**

**Global Observatories of Biodiversity and Environment for Development (GLOBE4DEV) 904**

**Programa de Apoyo a la Conservacion Sostenible de la Biodiversidad (PACSBIO) 242**

**Biodiversity and Protected Areas Management (BIOPAMA) 65**

# NEW Soil Atlas 2015

## **World Atlas of Desertification (M. Cherlet) 12-23 October 2015**

Presented during UN Convention to Combat Desertification COP 12 in Turkey (Ankara)

## **Soil Atlas of Africa (French Language) (A. Jones)**

4/12/2015 Catholic University of Leuven, Belgium

## **Global Soil Biodiversity Atlas (A. Orgiazzi) Early 2016**

# Soil Highlights 2015

From 4-8/08 **awareness raising activities** about 'Where food begins' at **EXPO-Milan**.

From 21-23/10 'Giving Soil a Voice Conference' at **EXPO-Milan**.

High Resolution Database for Soil Erosion by Wind and Water + Article in Nature – October 2015

Modelling of Soil Organic Carbon for Climate Change Mitigation – (NEW 2015)

Remediated Sites and Brownfields - Success Stories in Europe (4/12/2015)

# Directions for 2015 - 2017

- 1. The competition for land will intensify – within the EU and Globally**
  - We address both scales (current emphasis is on Global)... focus on results
- 2. R&D must reduce pressure on land**
  - We document soil type, condition and capability; land cover, condition and suitability
- 3. Land-policy decisions must be based on evidence at all stages of the policy cycle**
  - (can) We identify what to protect, what to use, what to convert (?)
- 4. Environment, development and space polices increasingly converge**
  - Collaboration within the unit and across Institute Units

# International developments



**GLOBAL SOIL  
PARTNERSHIP III**

IASS  
POTSDAM



**Global Soil Forum**

Institute for Advanced Sustainability Studies e.V.



**European Confederation  
of Soil Science Societies**

**ESSC** EUROPEAN  
SOCIETY for  
SOIL  
CONSERVATION



# The Sustainable Development Goals



*"This Agenda is a plan of action for people, planet and prosperity. It also seeks to strengthen universal peace in larger freedom. We recognise that eradicating poverty in all its forms and dimensions, including extreme poverty, is the greatest global challenge and an indispensable requirement for sustainable development. **All countries and all stakeholders, acting in collaborative partnership, will implement this plan.** We are resolved to free the human race from the tyranny of poverty and want and to heal and secure our planet...."* **United Nations Sustainable Development Summit 2015, 25 September**



# The Sustainable Development Goals

## SDGs relevant to soils

***SDG Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture.***

**Target 2.4:** By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively **improve land and soil quality**.

# The Sustainable Development Goals

## SDGs relevant to soils

**SDG Goal 3: Ensure healthy lives and promote well-being for all at all ages.**

**Target 3.9** By 2030, **substantially reduce the number of deaths and illnesses** from hazardous chemicals and air, water and **soil pollution and contamination.**

# The Sustainable Development Goals

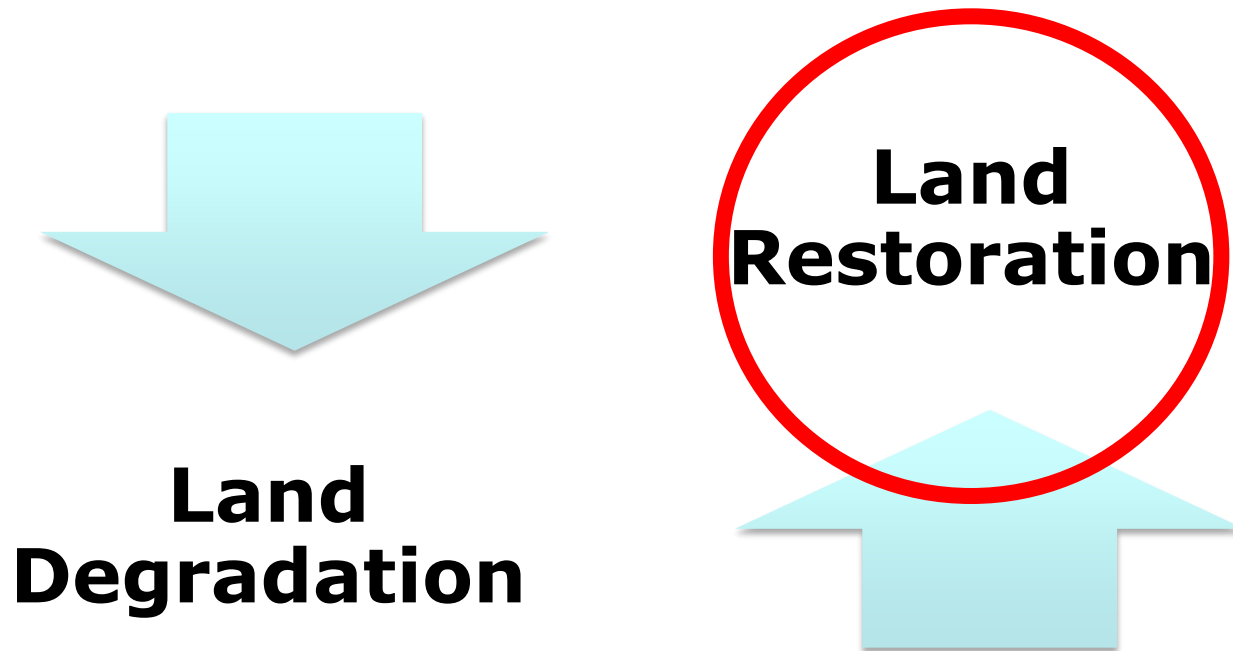
## SDGs relevant to soils

**SDG Goal 15: Sustainably manage forest, combat desertification, halt and reverse land degradation, halt biodiversity loss.**

**Target 15.3** By 2020, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a **land-degradation-neutral world**

# The Sustainable Development Goals

## Towards Zero Net Land Degradation



RIO 2012

United Nations  
Conference on  
Sustainable Development

# The Future we want!

# The Sustainable Development Goals

## Outcome Rio+20:

### **A Zero Net Land Degradation World**

- What does it mean?
- At what scale (local, National, Regional, Global)?
- Who should implement it?
- How can it be measured?
- When should it be achieved?



RIO 2012

United Nations  
Conference on  
Sustainable Development

# The Future we want!

# The Sustainable Development Goals

Explicit mentioning of soil contamination

➤ **Goal 3. Ensure healthy lives and promote well-being for all at all ages**

➤ **Target 3.9** By 2030, **substantially reduce the number of deaths and illnesses** from hazardous chemicals in air, water and **soil pollution and contamination.**

❖ Proposal for indicator: Concentration of contaminants in air, water and soil



# European Soil Partnership (I)

## Three key messages



### **1. Raising Awareness**

At all levels: National, Regional and Local  
International Year of Soils Plan of Action (2015)

### **2. Agree on concrete actions**

Development of detailed implementation plans  
Guidelines for the establishment and consolidation of Regional Soil Partnerships

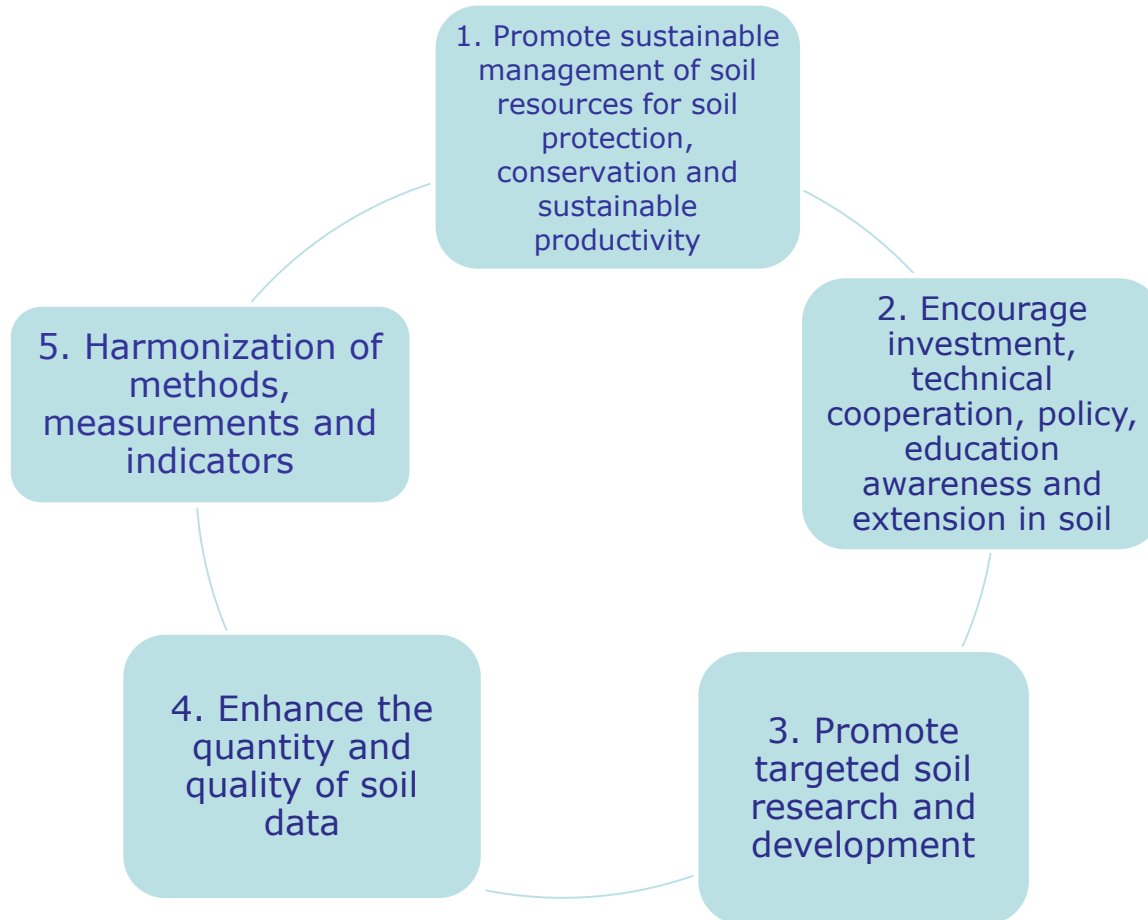
### **3. Sustainable Development Goals**

- a. ITPS to develop position paper on the role of soils in meeting the SDG
- b. Relevant parties to monitor and contribute as appropriate to the implementation of SDG.



# European Soil Partnership (I)

## The Five Pillars of Action



# Global Soil Partnership

## Intergovernmental Technical Panel on Soils (ITPS)

Summary outcomes of the September 2015 meeting:

- a. Nomination of Luca Montanarella (JRC) as chair for the next 2 years.
- b. ITPS to develop a position paper on the role of soils in meeting the SDG
- c. Relevant parties to monitor and contribute as appropriate to the implementation of SDG.

Next meeting ITPS on April 2016 (tbc), venue tbd.

Plenary GSP meeting Rome June 2016

## EUROPEAN SOIL PORTAL

<http://ESDAC.jrc.ec.europa.eu/>

**Thank you for your attention!**

2015  
International  
Year of Soils

