# Talking to the experts

<table>
<thead>
<tr>
<th>Expert name &amp; organisation</th>
<th>Date</th>
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<tbody>
<tr>
<td>Luca Montanarella, JRC (Italy, EU)</td>
<td>23/01/14</td>
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<tr>
<td>Arwyn Jones, JRC (Italy, EU)</td>
<td>24/01/14</td>
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<tr>
<td>Ronald Vargas &amp; Nicoletta Forlano, FAO (Italy, Global)</td>
<td>27/01/14</td>
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<td>Gabriele Broll, Universität Osnabrück, ENSA (Germany + EU)</td>
<td>25/02/14</td>
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<td>Detlef Gerdts, Osnabrück City, ELSA (Germany + EU)</td>
<td>25/02/14</td>
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<tr>
<td>Jes Weigelt &amp; Elisa Gärtner, IASS (Germany)</td>
<td>26/02/14</td>
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<td>Frank Glante, Umweltbundesamt (Germany)</td>
<td>13/03/14</td>
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<td>Antonio Bispo, ADEME (France)</td>
<td>26/03/14</td>
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<tr>
<td>Rainer Horn, Christian Albrechts University zu Kiel (Germany) + President IUSS (Global)</td>
<td>27/03/14, 07/04/14</td>
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<tr>
<td>Winfried E.H. Blum, University of Natural Resources and Life Sciences - BOKU (Austria)</td>
<td>27/03/14, 31/03/14</td>
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<td>Christian Steiner, Niederösterreich, ARGE Donauländer, Arbeitskreis Nachhaltigkeit (Austria)</td>
<td>28/03/14</td>
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<td>Willie Towers, James Hutton Institute (UK)</td>
<td>28/03/14</td>
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<td>Laura D'Aprile, Ministero dell'Ambiente e della Tutela del Territorio e del Mare (Italy)</td>
<td>30/03/14</td>
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<td>Nicola Dall’Olio, Provincia di Parma (Italy)</td>
<td>01/04/14</td>
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<tr>
<td>Martina Mlinaric, European Environmental Bureau (EEB)</td>
<td>02/04/14</td>
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<tr>
<td>Martien Swerts, Vlaamse overheid (Belgium)</td>
<td>08/04/14</td>
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Soil is a complex issue

• Soil is not visible. It is just under our feet but to see it, you must dig a large hole.

• The important functions performed by soil tend not to be highly visible, and are often not attributed to it. Furthermore, they occur over a certain time period (not immediate - examples: water filtration, even crops)

• The classic approach is based on several aspects:
  – Soil is a non-renewable resource (since it takes thousands of years of geological work to create fertile soil). Soil is a **limited resource**. It is fragile and must be protected.
  – **4 main uses of soil**: agriculture, commerce, industry, habitat.
  – **7 main functions**, as an eco-system service provider: carbon storage, biomass production, physical surface for infrastructure, raw material, water filtration, history.
  – **8 main threats**: erosion, organic matter decline, compaction, salinisation, landslides, contamination, sealing, biodiversity decline.
Soil degradation processes and consequences

After rain storm
- Rapid water table increase in rivers and lakes
- Surface water runoff increase
- Reduced groundwater recharge

Effects on the environment
- N₂O gas emission
- N loss due to stagnant water
- Reduced pore volume
- Reduced aeration
- Water infiltration reduced
- Soils remain longer wet and cold
- More slaking problems
- Reduced water storage

Heavy machinery compacts arable, forest, and pasture soils
- Dust emission increased
- Soil quality declines due to
- Reduced pore volume
- Reduced aeration
- Water infiltration reduced
- Soils remain longer wet and cold
- More slaking problems
- Reduced water storage

Consequences for plant production
- Reduced growth, higher uncertainty, less yield
- Increased fungi diseases, more weeds
- Reduced root growth (less dense and deep)

Soil biota suffers

Effects on soil management
- Higher draft energy required
- Higher fuel consumption
- Wet and cold soils result in smaller number of working days
- More fertilizers needed

Diagram provided by Professor Horn (CAU)
Soil versus air and water

• Without breathable **air**, people would die in just a few minutes. When air is polluted, we are very quickly badly affected and rapidly fall ill. Most of the time, air pollution is visible (smog).

• **Water** is also a very involving subject. Without water, people will die in a few days. The effects of the drought on soil and plants can be spectacular. Oil pollution or a river, full of dead fish is spectacular. We have images to make a television news story.

• Compared to air and water, the issue of soil "naturally" provokes less media interest: the phenomena and causalities are hidden or very discreet and rarely spectacular.
HOW TO RAISE THE AWARENESS OF SOIL ISSUE?
From a communication point of view

- For effective communication, we must determine the **best angle of involvement** and we have to create single-minded messages, **capitalising on the factors that build commitment**.
- This is absolutely critical, especially when we have a limited communication budget.
- We must simplify the message which means finding a good point of relevance.
Communication must permanently get over 2 major barriers:

• The first barrier is **indifference** which means that our targets are not interested in us and our issue.

• Once indifference has been beaten and the person has become interested, we are confronted by the second barrier which is **scepticism**. Can I believe what I am being told?
3 usual steps of communication

1. **Hook**
   - Targeted to uncommitted audience, usually poorly available public
   - Goal: raise the desire to learn more on the issue

2. **Argumentation**
   - Targeted to people who want to learn more
   - Goal: convince with impressive arguments

3. **How to**
   - Targeted to convinced people who want to do more
   - Goal: explain actions to be performed
Should communication always be positive?

• It is a common belief that communication should always be positive.

• Actually, it depends on the level of awareness of an issue:
  – If people are not aware of the problem, you should have a problem-oriented communication.
  – If people are fully aware of the problem, you can build a benefit-oriented communication.
If people are not aware of the soil problem/issue...

... We should have a problem-oriented communication
What is the most efficient entry point to engage people's interest in soil?
8 main threats / problems, usually described around soil issue

- Erosion
- Organic matter decline
- Compaction
- Salinisation
- Landslides
- Contamination
- Sealing
- Biodiversity decline
- ...

...
## Entry points review

<table>
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<tr>
<th>Topics</th>
<th>Assessment</th>
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<td>Contamination / pollution</td>
<td>Fortunately, the majority of Europeans do not live on or close to contaminated land. As such, this is ultimately not an engaging point of entry.</td>
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<tr>
<td>Sealing</td>
<td>Simple problem to explain. <strong>Engaging subject in zones prone to flooding,</strong> but those who live and work outside these zones are rather less concerned by the problem.</td>
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<td></td>
<td><strong>It collides with strong expectations from the public:</strong> to own a house in a green neighbourhood with a large patio and a paved driveway to the garage; more pavements, roads, etc. To choose sealing as a point of entry is to choose the touchiest angle from the point of view of our target group, which is not a good idea. We must certainly explain sealing when talking about the soil issue. But it is not the best pitch.</td>
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<tr>
<td>Erosion</td>
<td>Easy phenomenon to explain. It has a double impact on soil fertility (food/drink production) and on the capacity of soil to absorb water (water filtration and flooding).</td>
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What is the most efficient entry point to engage people's interest in soil?

<table>
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<tr>
<th>Compaction</th>
<th>Compaction threatens the fertility of soils by affecting their capacity for air and water retention (food/drink production).</th>
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<tr>
<td>Floods</td>
<td>The threats posed by flooding are easy to understand, but are less relevant for those who live and work outside of flood risk zones (a significant portion of the population).</td>
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<tr>
<td>Landslides</td>
<td>This threat is easy to understand. But it is less relevant for people who live and work out of risk zones (an important part of the population). So in the end, it’s not an involving point of entry for most of population.</td>
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What is the most efficient entry point to engage people's interest in soil?

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<tr>
<td>Biodiversity</td>
<td>This is a difficult topic to explain, except when linked to food/drink. We have observed a similar phenomenon with the issues currently affecting bees. It is only when we emphasise the fact that bees contribute to one third of our food/drink supply that people realise that this problem affects them directly.</td>
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<td>Carbon storage</td>
<td>While there is increasing awareness that climate change is a problem, this is a difficult and controversial subject. The capacity of soils to store CO2 is one of many aspects of the problem. We think that food/drink is a more effective approach. But this is certainly a good &quot;second line&quot; topic.</td>
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<td>Salinisation</td>
<td>This threat is mainly present in coastal zones and very little inland. It’s not an involving pitch for most of the population.</td>
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**What is the most efficient entry point to engage people's interest in soil?**

<table>
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<tr>
<th>Food and drink</th>
<th><strong>Exceptionally engaging topic</strong>, given:</th>
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<td>- strong emotional and highly symbolic aspects – food/drink plays a particularly important role in family relationships;</td>
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<td>- the issues surrounding food/drink security and quality.</td>
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Awareness of the importance of food and drink has also grown over recent years:
- impact on health (in particular its links with cancer and cardiovascular diseases);
- rise of the organic, Slow Food and fair trade movements.

Food and drink is a matter of concern for everyone, whether poor (how to pay for it) or rich (selection on the basis of taste or health; choosing one’s diet).

As the most involving and immediate of the functions performed by soil, food/drink production is an excellent point of entry. We believe that the soil-food-drink link can be pitched without the need to enter into all of the details of the soil issue.
The most involving issue is food

• Everybody has concerns about food security and quality. The awareness of food security and quality is one of the strongest issues.

• The most effective way to convince anybody that the soil issue is important is linking it to food security and quality.

• It is easy to link soil and food without going into all the technical details of the soil issue.
Food as a hook

• This does not mean reducing the issue of soil to the question of food/drink.

• It is clear that the "food/drink" pitch must also allow the other services provided by soil to be promoted.

• A link should certainly be made between food and drink and water management, including water filtration and the mitigation and prevention of flooding.
Food: an unifying approach

• The link FOOD / SOIL involves all the listed target groups:
  – Food is a very critical issue for parents, policy makers and environmental NGO's. And children are very interested by it.
  – Food production is in fact the farmers' job.

• We can even enlarge our target group to the following state of mind which includes a lot of people: I have concerns about what I eat: is it tasty, is it healthy, is it affordable?

• Today, food is a new trendy "political" issue (slow food, organic food, fair trade, etc.)
No soil, no food.
No soil, no drinks.
No soil, no water.

When an issue is not understood, a problem oriented approach is usually necessary. Explaining the problem helps to create awareness.
Possible variations

• No soil, no bread.
• No soil, no fruit.
• No soil, no vegetables.
• No soil, no meat.
• No soil, no juice.
• No soil, no wine.
• No soil, no milk.
• No soil, more floods.
• No soil, no biodiversity.
Soil is life.

When an issue is fully understood, a solution oriented approach is possible. Explaining the benefits helps to develop awareness.
Thank you for your attention