

ToR Reference No.: 2021/08 WP3	Author(s): Barry Sheppard/Mat Davis/Barrie Howe
Version: Final	Date: 29/10/2020
<b>TERMS OF REFERENCE FOR WORK UNDER THE AUSPICES OF IMPEL</b>	

## 1. Work type and title

<b>1.1 Identify which Expert Team this needs to go to for initial consideration</b>	
Industry and air	<input type="checkbox"/>
Waste and TFS	<input type="checkbox"/>
Water and land	<input checked="" type="checkbox"/>
Nature protection	<input type="checkbox"/>
Cross-cutting tools and approaches	<input type="checkbox"/>
<b>1.2 Type of work you need funding for</b>	
Exchange visits	<input type="checkbox"/>
Peer reviews (e.g. IRI)	<input type="checkbox"/>
Conference	<input type="checkbox"/>
Development of tools/guidance	<input checked="" type="checkbox"/>
Comparison studies	<input type="checkbox"/>
Assessing legislation (checklist)	<input type="checkbox"/>
Other, (please describe):	<input checked="" type="checkbox"/>
Workshop or Review Mtg	
<b>1.3 Full name of work (enough to fully describe what the work area is)</b>	
Sustainable Landspreading 2021-2022	
<b>1.4 Abbreviated name of work or project</b>	
Sustainable Landspreading 2021-2022	

## 2. Outline business case (why this piece of work?)

<b>2.1 Name the legislative driver(s) where they exist (name the Directive, Regulation, etc.)</b>
<ul style="list-style-type: none"> <li>● Water Framework Directive.</li> <li>● Nitrates Directive.</li> <li>● Industrial Emissions Directive.</li> </ul>

- Urban Waste Water Treatment Directive.
- Habitats and Birds Directives.

## 2.2 Link to IMPEL MASP priority work areas

- |   |                                     |
|---|-------------------------------------|
| 1. Assist members to implement new legislation.   | <input checked="" type="checkbox"/> |
| 2. Build capacity in member organisations through the IMPEL Review Initiatives.               | <input checked="" type="checkbox"/> |
| 3. Work on 'problem areas' of implementation identified by IMPEL and the European Commission. | <input checked="" type="checkbox"/> |
| 4. Other, (please specify):   | <input type="checkbox"/>            |

## 2.3 Why is this work needed? (background, motivations, aims, etc.)

IMPEL was asked by the European Commission to expand and apply its regulatory capability into the water environment arena (and specifically on the implementation of the WFD) having previously focused on industrial emissions and associated processes under IPPC and IED Directives.

This project, continuing on from the initial survey in 2020-21, is necessary to better understand the nature and impacts of waste being spread to land. As the chemical complexity of waste to land, especially sludge, has significantly changed over the past few years, so has our understanding of the emerging risks associated with this complexity. In addition to previously known about metals contamination, there are new and little understood hazards such as organic and inorganic chemicals, anti-microbial resistance contaminants and micro-plastics which can have significant environmental and ecological impacts on soil health and quality.

A previous IMPEL Challenge report identified agricultural environmental regulation as a cause for concern and an area to focus on. This work examines a specific issue that heavily impacts upon agriculture which cannot function without healthy, productive soils.

Good management of the water environment requires member states to be aware of emerging issues, be prepared to meet the challenges that they present, and improve current practices where needed. Landspreading of waste can have a significant impact upon the water environment both in terms of pollution and nutrient loading from poor landspreading practices. These issues are more effectively examined by IMPEL members working in collaboration across countries and with academic institutions.

The Sustainable Landspreading project seeks to build a common understanding of our regulatory approaches, build networks of experts and develop shared resources to enhance technical resilience. This is invaluable in understanding, resolving and sharing best practice about the issues around landspreading of wastes.

## 2.4 Desired outcome of the work (what do you want to achieve? What will be better / done differently as a result of this project?)

Following work previously carried out under SWETE 6 and discussions at the Land and Water Expert Team Meeting in Rome in October 2019 and Cranfield in 2020, the next phase will build on the results of the survey undertaken in 2020-21 concerning the environmental impacts of sludge on IMPEL members.

This work program aims to better understand the **capacity of soils to accept contaminants from landspreading**. In March 2020 a workshop was held in England with participants from a number of member organisations and countries to look at balancing the benefits and impacts of spreading materials to land, with a specific focus on farmland.

The work in 2020-21 built on the outputs of this workshop, its report and the Expert Team meeting held after the workshop. This looked at circular economy principles to support reuse of materials on land as fertilisers and soil conditioners and to ensure this support for reuse is undertaken in a manner that does not allow unacceptable and avoidable impacts on soil health and quality. The project involved a survey across IMPEL members to compare and contrast the different approaches to sludge management in different member countries and organisations.

The survey looked at common problems, solutions and areas of best practice as examples for others to learn from – as well as reflecting on how the COVID-19 pandemic impacted on sludge management across IMPEL members. A report was produced giving an overall picture.

The next phase of the work (2021-22) will be to analyse the data in more depth and to have short more focussed surveys and discussions to highlight particular concerns or best practise. Conference calls across relevant IMPEL members will be used to draw out particular issues. A more detailed report focussing on key issues (rather than the broader picture) and potential best practise/solutions will be completed. If current restrictions allow, a workshop could be organised to discuss the more indepth findings and agree key messages to members from the work.

## 2.5 Does this project link to any previous or current IMPEL projects? (state which projects and how they are related)

SWETE phases 1 to 6 (2015 – 2020). (Note: SWETE Phase 7 is now called **Sustainable Landspreading**)

## 3. Structure of the proposed activity

### 3.1 Describe the activities of the proposal (what are you going to do and how?)

Following on from the work in 2020-21, the core project team (Barry Sheppard, Mat Davis and Barrie Howe) will further develop the responses to the questionnaire/survey to obtain more focussed information from IMPEL members on approaches to sludge regulation and management in their respective countries. This will provide more detail (and be more focussed) on the priority issues and the solutions they have found, including areas of best practice. This will also include input from other key expert team members and academic institutions.

The project team (with input from other Expert Team members where possible) will produce a draft report that summarises the findings of the more focussed survey work. We will then hold a face to face one day workshop with expert team members in late 2021/early 2022. This will be to work through the report and agree it before producing a final report with recommendations in March 2022.

NB: Although a face to face mtg in early 2022 is planned, this may still not be possible depending on any travel restrictions in force at the time. Under these circumstance a videoconference would be held.

### 3.2 Describe the products of the proposal (what are you going to produce in terms of output / outcome?)

- Best practice and technical resource for this priority technical area.
- Creation of a community of practitioners in these areas.
- Building and further developing the IMPEL water network.
- Learning material for the W+L community on the environmental impacts of sludge to land

### 3.3 Describe the milestones of this proposal (how will you know if you are on track to complete the work on time?)

Milestones to include:

- Production of a focussed questionnaire building on results of initial survey
- Questionnaire sent to members.
- Responses received and analysed
- Workshop or conference call
- Report completed

### 3.4 Risks (what are the potential risks for this project and what actions will be put in place to mitigate these?)

**Risk:** Failure to identify/gain responses to survey or support from technical leads in IMPEL members leading to a unrepresentative report of main issues and problems

**Mitigation:** We will use the growing expert team, national co-ordinators and the IMPEL secretariat to support this work. Following on from the March 2020 workshop, we can also use the expertise and networks of Cranfield University. They are the lead academic organisation in the UK for soil health and quality and have a particular interest in waste to land issues.

**Risk:** Unable to hold face to face mtg to agree final report

**Mitigation:** Use a conference call to agree final report

Click or tap here to enter text.

## 4. Organisation of the work

### 4.1 Lead (who will lead the work: name, organisation and country) – this must be confirmed prior to submission of the TOR to the General Assembly)

Barry Sheppard, Land and Contamination Manager, Environment Agency, UK

### 4.2 Project team (who will take part: name, organisation and country)

- Mat Davis, Environment Agency, UK.
- Barrie Howe, Environment Agency, UK.
- Rob Hayes, Environment Agency, UK.

### 4.3 Other IMPEL participants (name, organisation and country)

### 4.4 Other non-IMPEL participants (name, organisation and country)

- Cranfield University, England

## 5. High level budget projection of the proposal. In case this is a multi-year project, identify future requirements as much as possible

This is an Excel Table, please double click on it to open it and to fill it.	2021 (exact)	2022	2023	2024
<b>Travel and subsistence costs for IMPEL</b> (should match the total costs of Annex I)	5,000.00 €	0.00 €	0.00 €	0.00 €
<b>Travel and subsistence costs co-financed</b>	0.00 €	0.00 €	0.00 €	0.00 €
<b>Consultant(s) costs for IMPEL</b>	0.00 €	0.00 €	0.00 €	0.00 €
<b>Consultant(s) costs co-financed</b>	0.00 €	0.00 €	0.00 €	0.00 €
<b>Translation costs for IMPEL</b>	2,000.00 €	0.00 €	0.00 €	0.00 €
<b>Translation costs co-financed</b>	0.00 €	0.00 €	0.00 €	0.00 €
<b>Total costs for IMPEL</b>	<b>7,000.00 €</b>	0.00 €	0.00 €	0.00 €
<b>Total co-financed</b>	<b>0.00 €</b>	0.00 €	0.00 €	0.00 €
<b>Total budget</b>	<b>7,000.00 €</b>	0.00 €	0.00 €	0.00 €

## 6. Detailed other costs of the work for year 1

<b>6.1 Are you using a consultant?</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
<b>6.2 What are the total costs for the consultant?</b>	N/A
<b>6.3 Who is paying for the consultant?</b>	N/A
<b>6.4 What will the consultant do?</b>	N/A
<b>6.5 Are there any additional costs (NOT included in point 5)?</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If your answer is 'Yes', please describe:
<b>6.6 What are the additional costs for?</b>	N/A

<b>6.7 Who is paying for the additional costs?</b>	N?A
<b>6.8 Are you seeking other funding sources?</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If your answer is 'Yes', please describe:
<b>6.9 Do you need budget for communications around the project? If so, describe what type of activities and the related costs.</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If your answer is 'Yes', please describe: Comms will be carried out via the Project team and the IMPEL secretariat

## 7. Communication and follow-up (checklist)

	What		By when
<b>7.1 Indicate which communication materials will be developed throughout the project and when?</b>  <i>(all to be sent to the Communications Officer at the IMPEL Secretariat)</i>	TOR <sup>✓*</sup>	<input checked="" type="checkbox"/>	October 2020
	Interim report <sup>✓*</sup>	<input type="checkbox"/>	
	Progress report(s) <sup>✓</sup>	<input type="checkbox"/>	
	Project report <sup>✓*</sup>	<input checked="" type="checkbox"/>	March 2022
	Press releases	<input type="checkbox"/>	
	News items for the website <sup>✓*</sup>	<input checked="" type="checkbox"/>	As necessary
	News items for the e-newsletter	<input checked="" type="checkbox"/>	As necessary
	Project abstract <sup>✓*</sup>	<input type="checkbox"/>	
	IMPEL at a Glance <sup>✓</sup>	<input type="checkbox"/>	
	Other, (give details)	<input type="checkbox"/>	
<b>7.2 Milestones / Scheduled meetings (for the website diary).</b>	See 3.3		

<b>7.3 Images for the IMPEL image bank.</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<b>7.4 Indicate which material s will be translated and into which languages.</b>	
<b>7.5 Indicate if web-based tools will be developed and if hosting by IMPEL is required.</b>	N/A
<b>7.6 Identify which groups/institutions will be targeted and how.</b>	N/A
<b>7.7 Identify parallel developments / events by other organisations, where the project can be promoted.</b>	TBC

✓ ) Templates are available and should be used. \*) Obligatory

## 8. Remarks

*Is there anything else you would like to add to the Terms of Reference that has not been covered above?*

It is essential that Landspreading is sustainable both from an environmental perspective and to deliver a circular economy. Virtually all IMPEL member states spread sludge to land to a greater or lesser extent. The regulation of this is often opaque and quite weak and the environmental impacts often not fully understood. This next more focussed phase of the work will enable IMPEL members to better identify and understand these risks and develop management systems to mitigate them. There will also be the opportunity to link into academic work in this developing area via input from Cranfield University.

*In case of doubts or questions please contact the  
[IMPEL Secretariat](#).*

***Draft and final versions need to be sent to the  
[IMPEL Secretariat](#) in word format, not in PDF.***

*Thank you.*