

SOILveR – November 2022

SOILveR webinar on Soil Certificates and Soil Passports - Short report

1) Objective of the webinar and preparatory phase

SOILveR (Soil and Land research funding Platform for Europe) has organised an online meeting to discuss the use of Soil Certificates and Soil Passports, or similar systems, in various European countries on the 14th of October 2022. This webinar was prepared in cooperation with the Common Forum and the NICOLE networks. In this meeting SOILveR wanted to bring together Researchers, Policymakers and Practitioners for exchange of information and a discussion on the use of Soil Certificates and Soil Passports by these three stakeholder groups.

The invitation provided the motivation for implementing these instruments and the definitions of Soil Certificates and Soil passports as described in the EU Soil Strategy for 2030:

Soil certificates

“Soil health is very relevant for farmers, foresters, and landowners in general, but also for investors, public authorities, and businesses. As a way of creating a bigger awareness of the state of soils, some Member States have developed certificates of soil health. In some cases, these have to be provided during land transactions to adequately inform the buyer on soil status, similar to a certificate of energy performance that provides information on the energy efficiency of a house when selling it.” (Taken from current EU Public Consultation on a possible EU Soil Health Law for protecting, sustainably managing and restoring EU soils)

Soil Passports

When a new building or infrastructure is built, and soils are excavated for this purpose, in many cases these excavated soils are clean and fertile and can be reused in the same or another appropriate location. In 2018, more than 530 million tonnes of excavated soils in EU were generated and reported as waste. To improve the safe recycling of healthy soils, several measures can be envisaged. To keep separate contaminated soil from clean soil, these streams have to be monitored more closely throughout the value chain, with traceability and quality control from the excavation site up to the receiving end.

Questionnaire

In preparation of the meeting, SOILveR, in cooperation with Common Forum and Nicole, sent a questionnaire to the members of these networks. The purpose was to get an idea, from both the policymakers and the practitioner’s side, on the present use of Soil Certificates and Soil Passports. If the Soil Certificates and/or Soil Passports were not used, there was a sub question if there are other national systems in place, fulfilling the same purpose.

Questionnaire

1. Are Soil Certificates used in your country?

If no: do you have a national system playing an equivalent role?

If yes: what kind of system (in brief)?

2. Are Soil Passports used in your country?

If no: do you have a national system playing an equivalent role?

If yes: what kind of system (in brief)?

SOILveR received 11 responses (annex 1) of the questionnaire. Based on the responses two maps were compiled, which were presented at the webinar.

Responses to the SOILveR questionnaire



Are Soil Certificates used in your country?

11 responses:

- 1 Yes

- 10 No

Do you have a national system playing an equivalent role?

- 8 Yes

- 2 No

Responses to the SOILveR questionnaire



Are Soil Passports used in your country?

11 responses:

- 1 Yes

- 10 No

Do you have a national system playing an equivalent role?

- 7 Yes

- 3 No

- 1 Unclear

2) Summary based on programme of the webinar

Program

9.30 – 9.40 Word of welcome and setting the scene, Gita Maas - Dutch Ministry of Infrastructure and Water management

9.40 – 10.10 Showcase ‘How Certificates and Passports function in Wallonia’

Legislation, Esther Goidts - SPW

Implementation in practice from the perspective of

Brownfield development, Marie Jailler - SPAQUE

A soil expert, Frédéric Bracke - FEDEXSOL

10.10 introduction on the tour de table, Yvonne Ohlsson - SGI

SOILveR has asked members of Common Forum and the NICOLE network whether SOIL Certificates or - Passports are being used and if not, whether a national system is being used. Based on the responses we have compiled a map. Several respondents will give a short presentation.

10.15 Tour de Table based on the “Map of Europe”

10.45 – 11.00 coffee break

11.00 Continue Tour de Table based on the “Map of Europe”

11.30 Discussion, Yvonne Ohlsson - SGI

12.30 Wrap up, Gita Maas

126 people signed up for the webinar of which 49 researchers, 23 policymakers, 49 practitioners and 5 unspecified. 77 people finally joined the meeting to discuss on the use of soil certificate and passport.

Show case on ‘How Certificates and Passports work in Wallonia’

Within the workshop there were three speakers, representatives from administration, public agency in charge of brownfield redevelopment and private certified body, from Wallonia (Belgium) which has both Soil certificates and Soil passports in place.

Under the frame of its soil decree (2018), Wallonia has developed a soil status database (named “BDES”) at cadastral parcel scale. This centralised geodatabase is an inventory of administrative registers from different authentic sources (environmental permits for potentially polluting activities, brownfields, soil studies, ...), such that all information coming from these registers are available for each cadastral parcel. BDES is weekly updated and publicly available on web, and an official extract of the data for one parcel can be automatically delivered at a cost of 30 € per parcel.

The soil decree also organises triggers for soil and groundwater investigations that must be done by certified soil experts, laboratories, and samplers. When such investigations are done “in situ” the final document issued by the authority is a “soil control certificate” for each cadastral parcel, and if the investigations relate to excavated soil the final document is a “soil quality control certificate” for batches excavated from the site of origin. In case of ex situ transport and reuse of more than 20 m³ of

excavated soil, a “soil passport” has to be delivered by Walterre after a validation (based on thresholds per land use if a soil quality control certificate has been done, or on land use sensitivity if only a soil passport is available) and will ensure traceability and environmental protection.

Finally, mandatory soil information is required at various stages of the life cycle of a cadastral parcel:

- 1) when the parcel has been put in the priority list of historical/orphan sites to remediate, soil investigations must be started.
- 2) when transferring a parcel, a BDES extract has to be provided for both parties, however soil investigations are not required (it is up to the parties to do soil investigations or not).
- 3) when the land use is changed on a parcel (through environmental or land planning authorisation) soil information from BDES must be used and further soil investigation might be required under certain conditions.
- 4) when accidents/events polluting soil occur.

After 2 years of experience, speakers highlighted that this system increases general awareness on soil quality and provides more transparency and traceability. They also pointed out key issues such as means required (time and money). In practice the use of certificates and passports could be difficult because of emerging contaminants, threshold values, environmental data communication etc. At last, it is important to note that the Walloon system is not reflecting “soil quality” as referred to by the European Commission in the current discussion on the Soil Health Law, as it is only focused on pollution.

Questions/comments made during the presentations and associated answers are gathered in annex 2.

Tour de Table based on the “Map of Soil Certificates and Passports in Europe”

- Flanders (Belgium)

OVAM is in charge of the management of contaminated sites and its current legislation is in use since 1995 and contains triggers for private site investigation linked to transfer of land, cessation of activity and periodic reporting. This system allows data collection within the Land Information Register and their mapping. Soil certificates can then be delivered for every plot, with administrative and legal aspects related to soil contamination (no detailed information).

The policy on excavated soils in Flanders applies the standstill principle. It relies on standardised procedures to ensure traceability (if > 3,5 tons) and compatibility between the receiving site and the quality of the excavated soil (investigation based on volume - above 250 m³ or below if suspicion of contamination), combined with the land use type of the receptor site). A distinction between recovery of soil materials (excavated soils, dredged sediments, ...) and waste material (demolition waste, slag, ash, ...) is used.

- Denmark

Regarding the certificate: data in a decentralized inventory (5 regions) is uploaded to a real time national database with analytical information on e.g., contaminated sites and soil and groundwater contaminants. From this database a soil certificate is generated, only concerning soil contamination.

The database shows if a site is registered on knowledge level (KL) 1 (potentially contaminated – linked to activities), knowledge level 2 (sampling and analyses done – guideline values exceeded) or is a removed site (sites that have been investigated or

remediated). An online map for this is accessible when you buy or sell property (Danmarks Miljøportal).

The certificate contains basic information (what is on site, cadastral number, KL 1 or 2, kinds of risk). The certificate is not part of the law, but the service is made available, people do it by themselves.

Regarding a 'passport': For potentially contaminated/contaminated property or urban soil zones¹ there is an obligation for a developer to analyse and report the soil being excavated. The municipality needs to give an approval if the soil is moved to a different place than an official soil facility. The 'passport' system is not available to citizens. An executive order describes the general set-up of the 'passport', but there is no uniform requirement for analytical demands or methodology.

- United Kingdom

CLAIRE has run an initiative since 2009 for soil reuse in England and Wales: the CLAIRE definition of waste – Code Of Practice (COP). The system is focussed on land quality, site investigation and risk assessment and is not a waste management tool. Soils in the system could be clean or contaminated (appropriate for some use). For reuse there should be a check on that there's no degradation of environment or human health + a detailed quantitative risk assessment.

Soil passports: all projects must provide a materials management plan. The plan needs to comprise a site investigation of donor and receiver sites, risk assessment, remediation strategy, plans for verification and a tracking plan. At a minimum the tracking should include: the final placement, locations (donor site, transport site), GIS spatial plans and maps. This information is submitted to an independent qualified person for review: a declaration (i.e., the UK equivalent of passport) is given if compliant to the COP.

The information is stored in a national data base and information on e.g., location of receiving sites is shared with relevant authorities. Improvements such as adding more real-time data to the database are planned in the future. Third-party developers are themselves creating the tracking software's. CLAIRE does not stimulate a one size fits all, a minimum requirement however is that software is compliant to COP and fits into the national database. CLAIRE provides national graphs on volumes of clean materials, brownfield materials (smaller fraction of re-use) etc. In parallel, there are plans to work on improved conditions for more treatment facilities to promote greater confidence in the re-use market.

- France

France has urbanism and waste laws in place. These concern unhealthy soils and focuses on soil contamination management in the SIS (Soil Information Sectors). In those sectors, the knowledge of soil contamination triggers soil studies and contamination management measures, particularly in the event of a change of use. A certificate of completion of soil studies by a certified environmental consultancy must be provided in case of construction on a SIS area. In parallel, an electronic database RNDTS (national registry of waste, excavated soil and sediment), has to be filled in by all producers and users with the purpose of register the

¹ There is no passport needed outside of these categories.

quantity of excavated soil and sediment above 500 m³ going off-site. It does not concern transporters of soil. The system concerns all types of soils (contaminated and “clean”) and is also available for hazardous waste. Its access is restricted to declarants and authorities and the RNDTS by the end of 2022 will be connected to a free electronic platform (TERRASS) to support reuse of excavated soil by linking producers to users.

- Austria

Land transaction is included in civil law in Austria. The real estate market works with a norm from the construction sector and looks at the environmental status of used surfaces. The databases with contaminated sites go back to 1989. It is common practice to look at registers with the transfer of land in Austria even if not compulsory.

Questions/comments made during the presentations and associated answers are gathered in annex 2.

Exchanges between participants using Mentimeter

To give the participants the possibility to comment and give their point of view we used Mentimeter. We started by asking for the countries of the participants, to get an idea of the representation. Due to the variation in number of participants from different countries, the rest of the Mentimeter responses will be biased by this, and the results should be used cautiously.



On the next pages we have listed some of the comments on the Mentimeter questions.

Is traceability of excavated soils already dealt with satisfactorily/reasonably well, or not dealt with, within the existing systems in your country?

Satisfactory dealt with	Reasonably dealt with	Not enough / Not dealt with	Other
Can be dealt well - but no mandatory system	Can be improved (2x)	in some cases, is not really working, not sufficient	For me it's the passport system a better system
Certainly!	Can be improved (not related to public database)	MUST BE IMPROVED	I really like the idea of soil passports so long as it is required upfront
Only in the case of remediation	There is always room for improvement	Must be improved	May be
Yes (6x)	Traceability is at the beginning, and therefore will be improved	No (9x)	No and yes, same system but with less administrative work
Yes, with documents for monitoring and control of tonnage and transports	We have a Soil certificate system in Brussels, and we are now completing this system with soil health !	NO, it's the better system	Not yet clear what a soil passport means
Yes, standards for soil to avoid being waste	Yes, but can be improved	No, it must be improved	The transfer of powers at regional level does not help uniformity of criteria
	Yes, but needs to be addressed at the very start of a project	No, Soil passport is a good system	
	Yes, but to improve	Not really	
	Yes, but can be improved	Not sufficiently to satisfy the regulator to allow hub and cluster	
	Yes, but proper/better reuse should be envisaged	There is not sufficient traceability in Greece so far.	
	Yes, but this is the beginning	A sound framework should be adopted.	
	Yes, some info can be added to enhance traceability		
	Yes, to be improved for re-use		

Do you think there could be other solutions than Soil Passports, which would suit your country better?

No	Yes	Other	Don't know
No, 5x	there are other mechanisms, but the passport seems the most practical for all parties	Important to link to existing systems - NO double work for projects and industry	Don't know 2x
No (= global soil passports including a few focus for example type of uses, pollution, compaction etc)	We have a reasonable system on environmental Declaration on soil quality. This system can be enhanced by adding some extra info on traceability	Not clear if it's an EU wide system	
No, passport would be better	Yes	Soil Passports could be a good option	
No, the soil passport is a good system		Soil science concepts do need to be better embedded in the construction sector with regards soil management	
Not really ,it's just a matter of name of such document		The issue is to go beyond soil pollution, to soil health	
Not really. But the scope of the passport should be expanded for all soils that arise from a site		The WILLINGNESS to do things better and more sustainably	
		there is not yet enough information on what the EU envisages with the soil passport to know how it would suit	
		not so easy to change existing system	

Is there a system for land transactions that satisfactorily/reasonably well does/could include soil health aspects?

yes	no	other
Absolutely	contamination yes, soil health no	A generic soil health report would not help a farmer i.e.,
kind of soil passport, extended to other aspects of soil health	Currently no. It is under development in some Spanish regions In Spain if it is contaminated it must be registered in the property register, but only if there is a declaration of contaminated sun and unacceptable risk	A legal system for the liability but not regarding transfer of information
Land/Soil real estate register in Germany/Austria already consists of such aspects Real estate register in Germany/Austria related to soil contamination	No	Bureaucratic - no value added
Yes 3x	Not existing yet in France	I don't know
Yes, for soil pollution and other parameters in order to inform on soil ecosystem services	Not really, soil health is a very wide concept, and we have to include many parameters to address ecosystem services	Never understood the concept of soil health
yes, easier for buyers	Not that I'm aware of, I think this is essential and passes responsibility on to landowner and makes everything more transparent rather than the buyer beware approach	Other aspects would require other research (with maybe other dynamics - repetition etc). Perhaps try to link with private and public initiatives focused on biological and physical.
	not yet (in progress)	Soil science concepts need to be better embedded within the Construction sector and soils management
	Not yet, only pollution focused... and not soil health	
	Only for soil contamination, not for "healthy soils"	
	Yes, for contamination Not soil health	
	Yes, for soil pollution, not yet for other aspects of soil health	
	Yes, when pollution in soil is know	
	Yes, but it does not include information on ecosystem services. It is only on soil contamination	
	yes, but it includes only soil pollution	

Do you think "soil certificates" as presented today could provide an added value to your system and for soil health?

Yes	No	other
Yes, 11x		We generally have it in place
yes, in terms of contaminated sites		it is true that they only focus on soil contamination without taking into account other fundamental parameters of soil health. Hence, sustainable remediation, for example, is promoted
yes, sure		We hope for further information about proposed approach. Polat Reymov, Karakalpak State University, nukusgiscenter@gmail.com
yes, off course		There is a risk of delays in land transactions!
for transparency in transaction		
As a starting point YES, but there is MANIFESTLY room for improvement...especially in terms of TRACEABILITY		
Yes, as long there's NO additional efforts and existing systems/data are still incorporated		
Yes, at least for soil pollution, but going further would give more value to Land properly managed regarding other soil services		
Absolutely		
Yes, it is a valuable surplus to our competencies in soil registry and land management		
yes, easier for buyers		

Do you think there could be other solutions than "Soil Certificates" as presented today, that would suit your country better?

No votes due to shortage in time.

Conclusions on the use of Soil Certificates and Soil Passports

Soil certificates:

- Diverse feedback on the existence of such system within a country, but usually countries have running systems in place to take into account soil contamination during land transaction going from relying only on usual civil law, to explicitly stating the obligation to take into account soil contamination issue with just one country using the name “soil certificate”.
- Few participants mentioned that such a system was in place for other soil health issues (i.e. beyond soil contamination), whereas a big portion of the participants would see such broadening as an added value; however, some other participants mentioned the lack of understanding of what soil health means, as well as the risk of bureaucratic mechanisms development and the delay for land transactions, one pointed out the lack of added value for farmers.

Soil passports:

- Diverse feedback on the existence of such system within a country, but usually countries have running systems in place under the waste regime to take into account soil contamination during excavation works/movements, some countries have dedicated legal framework for excavated soil going further than the waste regime, with just one country stating to use the “soil passport” system.
- Most of the countries see that there is room for improvement of the system; and the majority considers that the soil passport system (at least having traceability systems) is the best option.
- Few countries mentioned that the excavated soil system was covering other aspects than just contamination.

2) Topics for further discussion during the Common Forum / NICOLE meeting in Greece

Soil certificates:

- What is the needed level of knowledge on soil quality that should be available for the buyer and the seller of a site? How to link such information to the concept of soil health?
- How existing systems of information focusing on soil contamination can be extended to the concept of soil health?
- Should such soil health certificate be harmonised at the EU level? What would be the minimum content?
- What should be a trigger for soil health investigations?
- Who should be in charge of soil health investigations?

Soil passports:

- If traceability for excavated soils such as the “soil passport” system is seen as a good system, should that system be set at the national or European level? Why?
- What would be the added value of going beyond what is already required by the waste legislation?
- How to widen the scope of current traceability system to the soil health concept?

Annexes to this report

- 1) Answers to the questionnaire in preparation of the webinar
- 2) Questions/comments made during the presentations and associated answers