



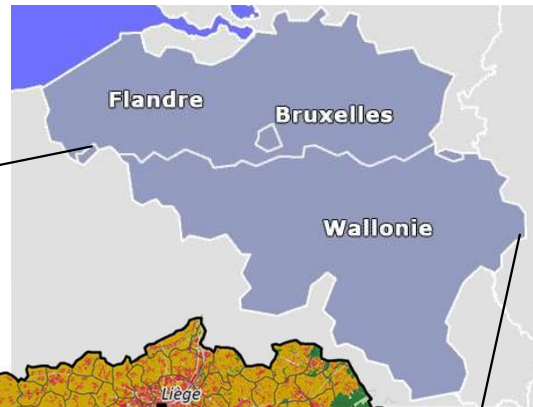
What Strategy for EU soils in 2030?
5 & 6 October 2022, Brussels

Soil strategy in Wallonia

On the road towards improved soil quality

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Soil Protection Direction

Wallonia



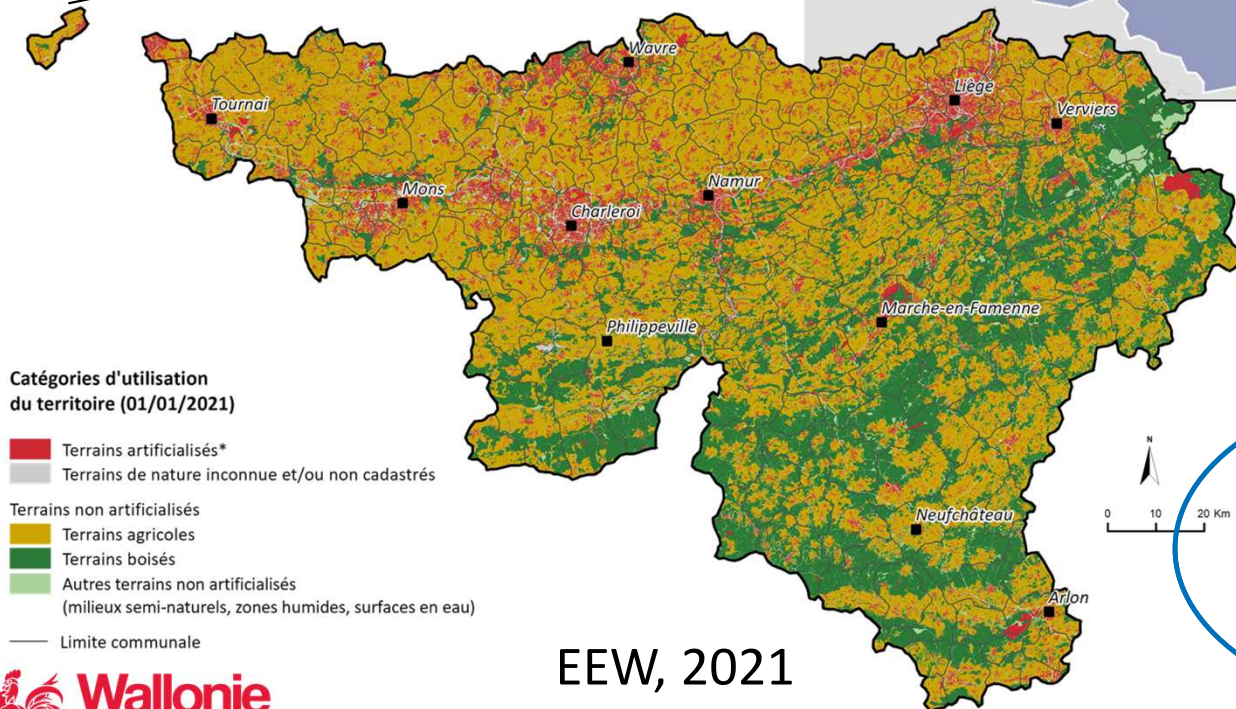
Vlaanderen
verbeelding werkt



Wallonie

Administrative regions in charge of environmental & agricultural competences (and partly health) since 1980

=> Regional soil legislations !



Catégories d'utilisation
du territoire (01/01/2021)

- Terrains artificialisés*
- Terrains de nature inconnue et/ou non cadastrés
- Terrains non artificialisés**
 - Terrains agricoles
 - Terrains boisés
 - Autres terrains non artificialisés (milieux semi-naturels, zones humides, surfaces en eau)
- Limite communale

 **Wallonie**
environnement
SPW

EEW, 2021

Service public de Wallonie | **SPW Agriculture, Ressources naturelles et Environnement**

3,6 M inhabitants

217 inhab/km²

BE: 377 inhab/km²

Flanders: 492 inhab/km²

Brussels: 7528 inhab/km²

EU: 109 inhab/km²

16 901 km²

52% agriculture

32% forest

11% artificialised

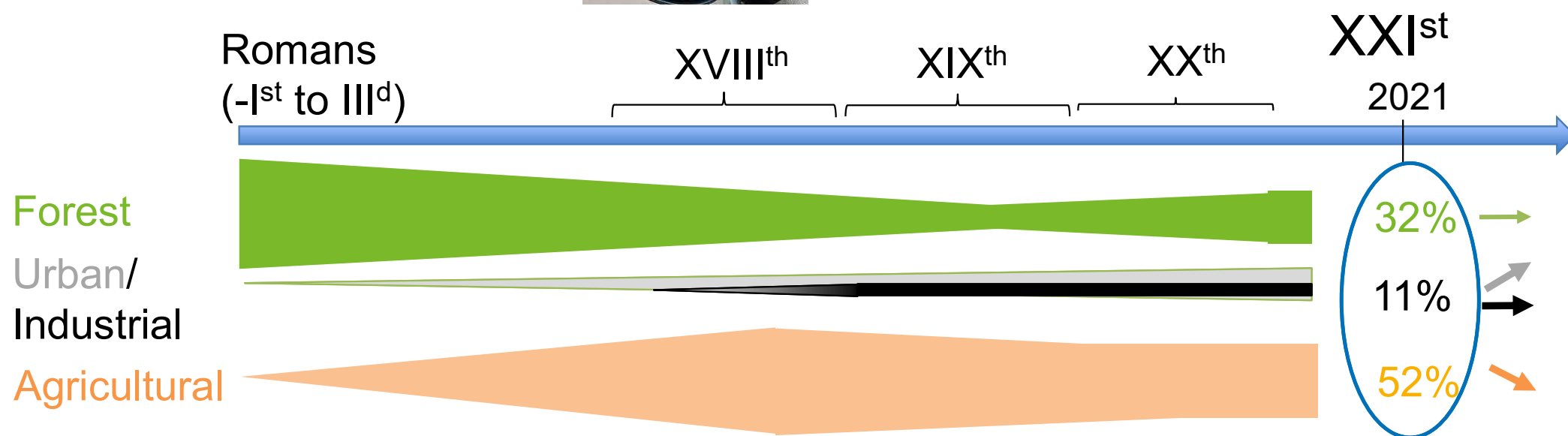
Outline

On the road towards improved soil quality

1. A look back...
2. Where we stand
3. New EU soil strategy
4. Conclusions



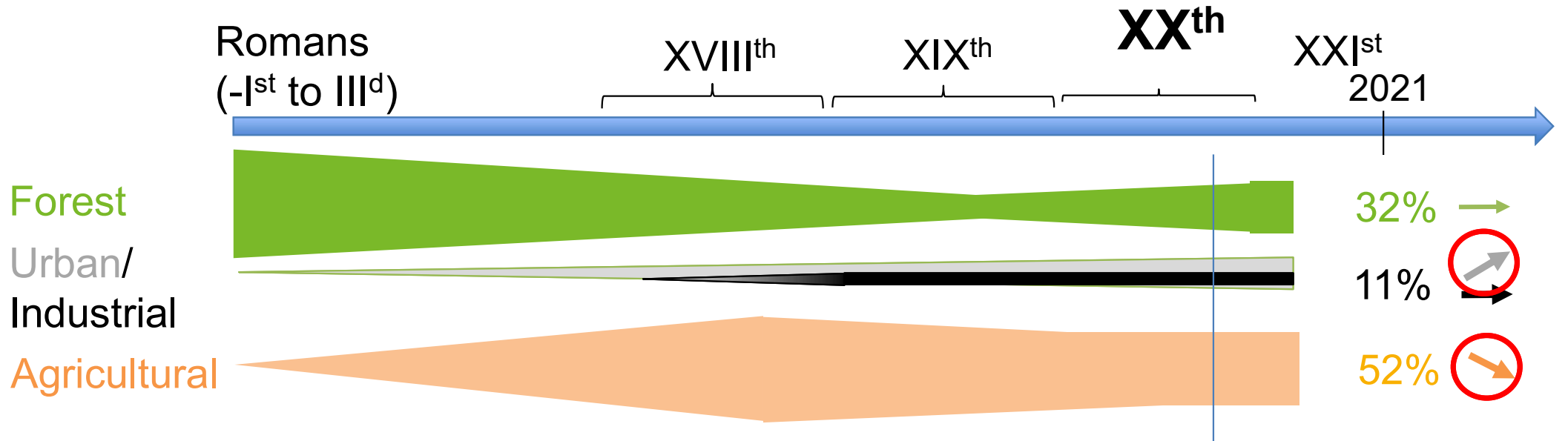
1 - A look back



*From wood and forest landscape at Roman ages...
to agricultural and industrial activities at the XVIIIth – XIXth century...*

*=> origin of the distribution between **land uses**
their associated level of **soil quality***

1 - A look back



Not net land take by 2050?



17% for urbanised area (1/3 left)
83% for non-urbanised area

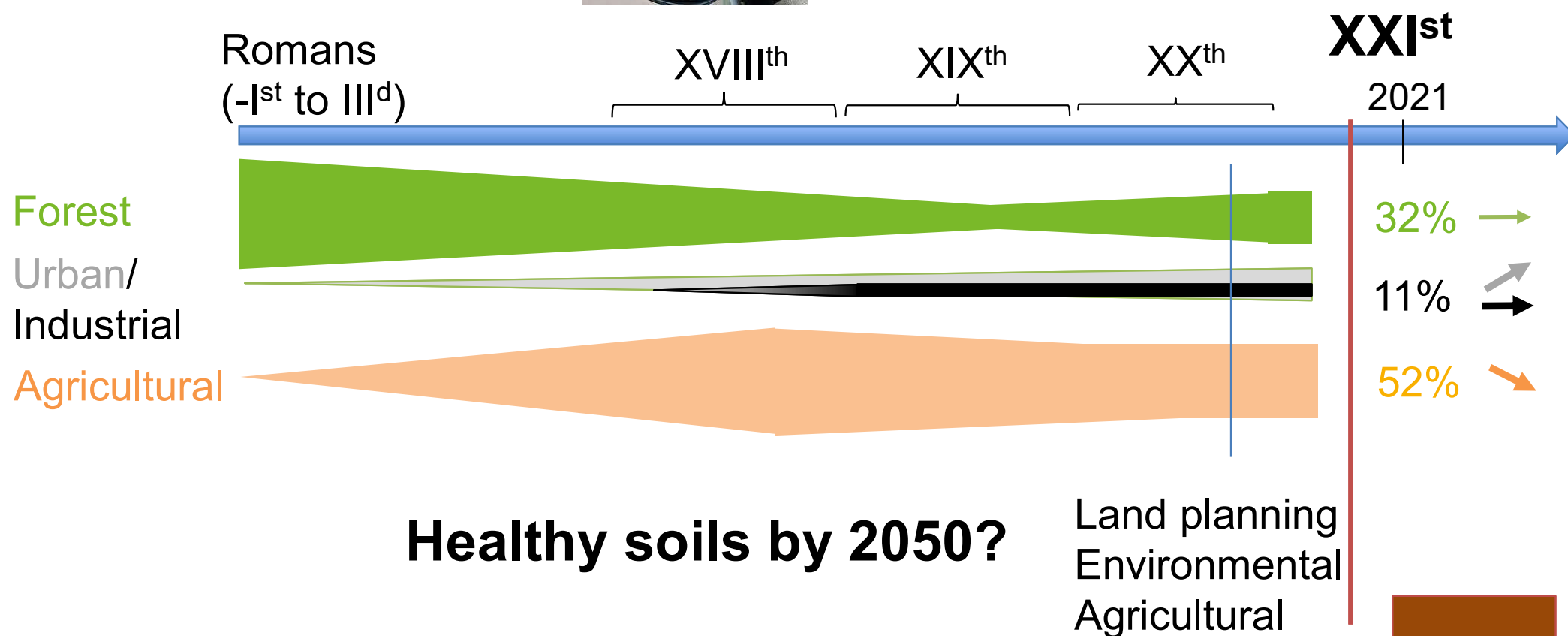
By 2030: max 6 km²/yr (600 ha/yr)
By 2050: zero land take

Land planning
Environmental
Agricultural

Legislations
(Wall / EU)

2015-2019:
10,7 km²/yr

1 - A look back



1 - A look back



XXIst - the road to a soil legislation in Wallonia

- 2004 : text failed... but provisions on soil pollution management for economic wasteland taken in land planning legislation
- 2008 : text adopted by the Parliament with the following principles:
 - ⇒ *Management of soil pollution + open door for other soil degradations (article 4)*
 - ⇒ *Soil thresholds for pollutants by land uses*
 - five land uses: natural > agricultural > residential > recreative-commercial > industrial
 - 3 values: reference value < trigger value < intervention value
 - ⇒ *List of potentially polluting activities/installations (233)*
 - ⇒ *Soil status database (« Banque de données de l'Etat des Sols » - BDES)*
 - ⇒ *Triggers for site investigation/remediation: voluntary or by administration*
(article 21 with the trigger linked to land use change or transfer is not activated...)
 - ⇒ *Accredited experts and laboratories, guidelines (CWBP – CWEA)*

1 - A look back



XXIst - the road to a soil legislation in Wallonia

- In 2015, strategic orientation is given by the Government in line with « soil degradation » approach from EU Soil Thematic Strategy
 1. Development of thematic legislations with the following priority :

Pollution > Soil organic matter > Erosion > Sealing
 2. Final integration within an integrated Soil Code
- ⇒ **Revision/renewal of soil decree to get to its full implementation**
- ⇒ **Thematic developments**

2 – Where we stand



➤ *New Soil decree adopted on 1st March 2018*

- ✓ **Scope clarified** : soil protection concept (*common patrimony & soil functions, soil quality & degradation, sustainable soil management*), distinction soil/waste, focus of the decree is still soil pollution, but the open door of article 4 is kept
- ✓ **Excavated soil management under Soil Decree** (harmonisation of waste and soil norms, creation of Walterre, specific guidelines, ...)
- ✓ **Soil Status Database better defined** (content, sources of reference, ...)
- ✓ **Clarified triggers and derogations** (*activation of the triggers linked to land use change and transfer of land*)
- ✓ **Revised thresholds** (same land uses but *only one value triggering action*)
- ✓ **Quicker procedures** (*combined investigations, emergency procedures*)

2 – Where we stand



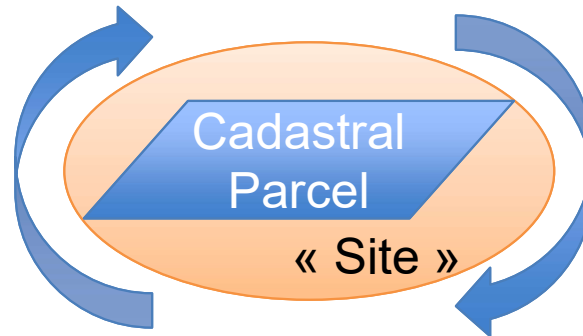
➤ *Thematic developments*

1) Soil pollution management – local pollution

Life cycle of a parcel

Static trigger

- **List of priority sites** defined by Government (**)



Dynamic triggers

- ✓ **Transfer of land (*)**
- ✓ **Change of land use (**):** urbanism/envir. permit
- ✓ **Excavation works (***)/(**)**
- ✓ **Accidents/heavy threat (**)**

Soil status database (BDES)

Soil tracking : * « BDES conform extract » (automatically delivered)

** « **Soil certificate** » when soil investigation by soil expert

Soil tracing : *** « **Passport** » for excavated soils

Soil Status Database (BDES) : Administrative data on soil available on web bdes.spw.wallonie.be

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Version 4.0.7.2

CARTE

BDES : L'état des sols



Extract of BDES mandatory
when transfer of
land/environmental permit



213.472 (2021)

- Soil investigations by experts (Soil decree & previous legal bases)
- Permit delivered for potentially polluting activities
- Soil pollution reports from controls
- Historical information (Backfilled locations)
- Suspected pollution

Around 70.000 parcels out of 3,8 M are colored in BDES
(20% of artificial areas) (2021)

2 – Where we stand



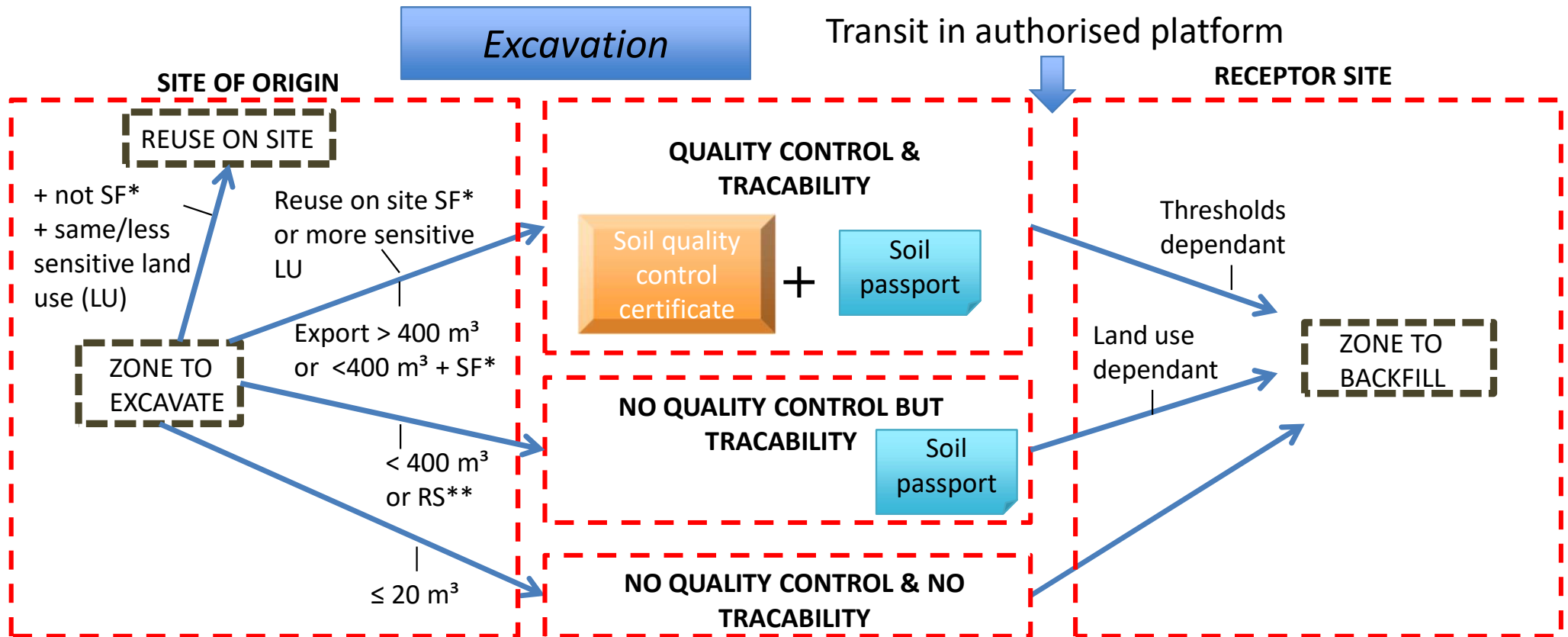
1) Soil pollution management – *diffuse pollution*

- Environmental permit (emissions to air / water / soil)
- Legislation on the use of material recovered on soils (circular economy):
 - waste fluxes (organic waste, ...)
 - non-waste fluxes (products / by-products / end of waste)

⇒ *Excavated soils implementation legislation based on Waste & Soil decrees (5/7/2018) + Guidelines (GRGT)*

Fit for use & stand still principles (sensitivity of the five land uses of Soil decree, 80% of trigger values for pollutants, some derogations), proportionate traceability (risk approach)

2 – Where we stand



* SF = suspect field (in soil database BDES or due to (potential) pollution not yet recorded in BDES)

** RS = excavated soil from roads/railways/...

2 – Where we stand



1) Soil pollution management – diffuse pollution

⇒ *Excavated soils implementation legislation based on Waste & Soil decrees (5/7/2018) + Guidelines (GRGT)*

⇒ *R&D to develop a similar system for organic materials / fertilisers (article 4 of Soil decree)*

- Development of an approach for pollutants of emerging concern
- Development of environment & health tools / procedures for worst cases
e.g.: urban gardening SANISOL 🌱

2 – Where we stand



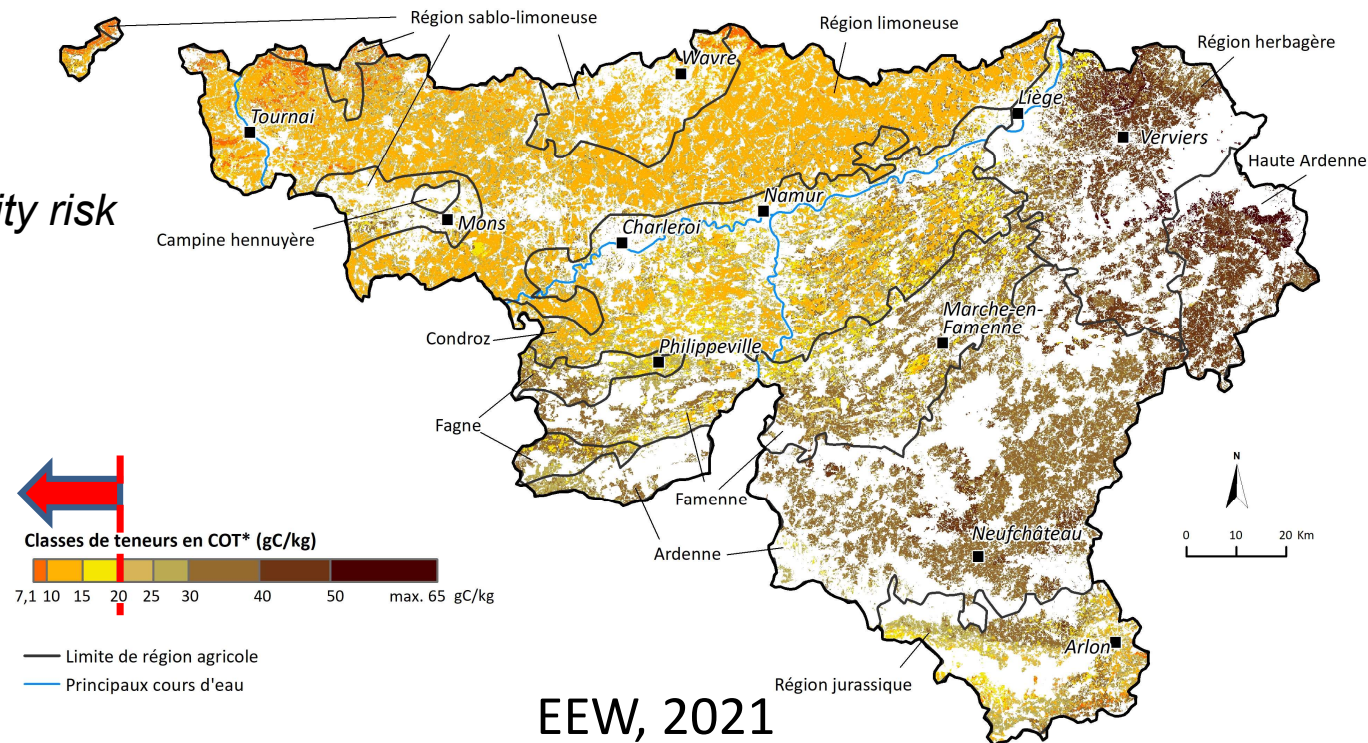
2) Soil organic matter decline

=> measure of total soil organic carbon in agriculture (topsoil)

State = unfavorable
(90% of cropland)

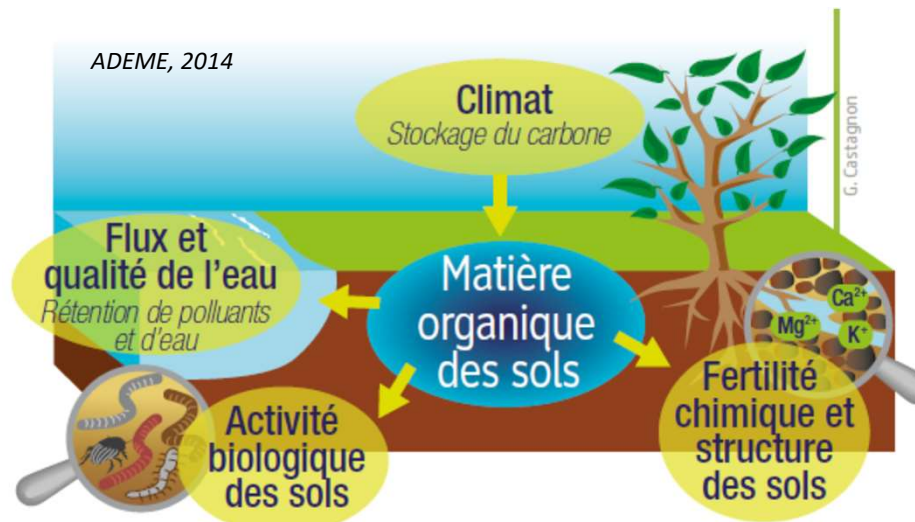
(threshold for structural instability risk
of 20 gC/kg)

Trend = degradation



New result-oriented « Soil » intervention in walloon CAP 2023

=> Soil quality management through its carbon content (voluntary commitment)



⇒ **Objective** : maintenance or increase of soil carbon in cropland and grassland

⇒ **Indicator** : ratio between total organic carbon content (TOC) and clay content, assessed in first year (*initial report, t1*) and final year (*final report, t5*)

Soil type (% clay)	Unfavorable situation (0€/ha)	Transition situation (max 80€/ha)	Favorable situation (max 150€/ha)
<i>Light</i> (<12%)	< 14%	14 – 17%	> 17%
<i>Mean</i> (12-19%)	< 8%	8 - 10%	> 10%
<i>Heavy</i> (>19%)	< 6%	6 – 9%	> 9%

cropland

grassland

Farm eligibility:

- Minimum surface in cropland (TA) >30%
- Eco-scheme « long soil cover » activated in 1st yr

Parcel eligibility (cropland/grassland):

- Cropland not subject to GAEC 5 (sensitivity to erosion)
- Cropland not being a former grassland within the 5 last yrs
- Engagement of at least 90% of eligible parcels during 5 yrs

Payment function of initial report & TA level, final adjustment
+ package 500€ for soil analyses of initial & final report
+ bonus paid if upper class change and eco-scheme « long soil cover » activated during 5 years

2 – Where we stand



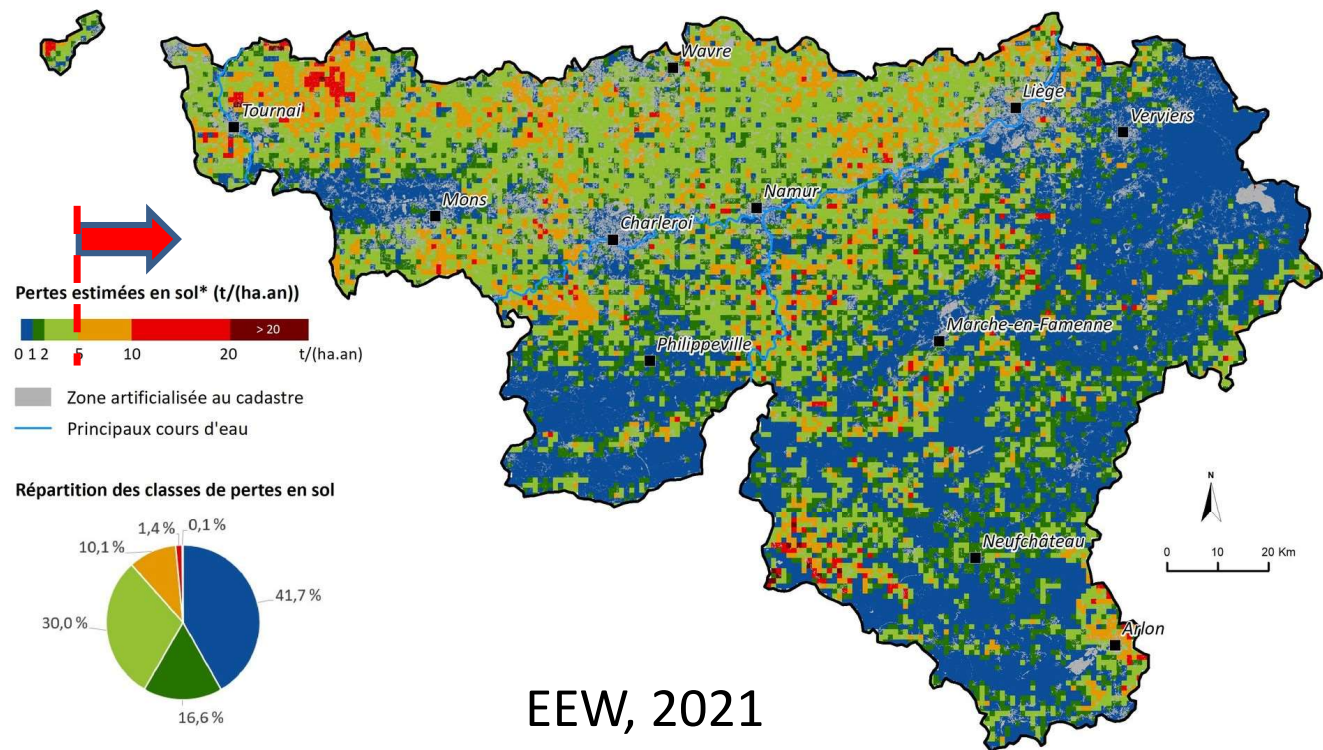
3) Soil erosion

=> Estimated total soil loss by diffuse hydric erosion (USLE)

State = unfavorable
(29% of cropland)

(threshold for unsustainable erosion rate of 5 t/ha/yr)

Trend = improvement

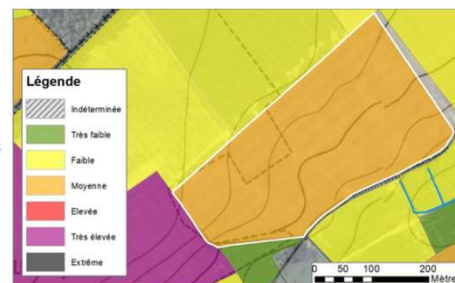
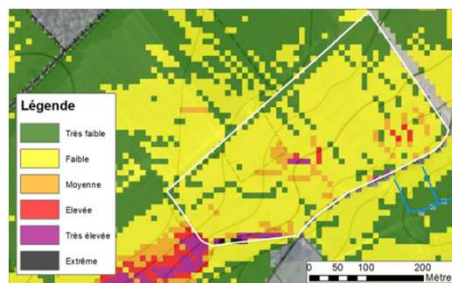


2 – Where we stand



3) Soil erosion

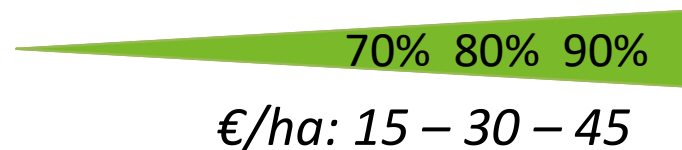
⇒ New map of soil erosion sensitivity to be included in the GAEC 5 of new CAP (instead of previous criteria « % of area concerned by a given slope within a parcel »)



- *Specific assesment at field scale (RUSLE)*
- *6 classes of sensitivity*
- *Proposed practices to decrease soil sensitivity (↘length, ↗TOC, change in vegetation cover / tillage level ,...)*

⇒ New eco-scheme « long soil cover » to be included in the SP of new CAP

Trigger for soil vegetation cover from January to February at farm scale



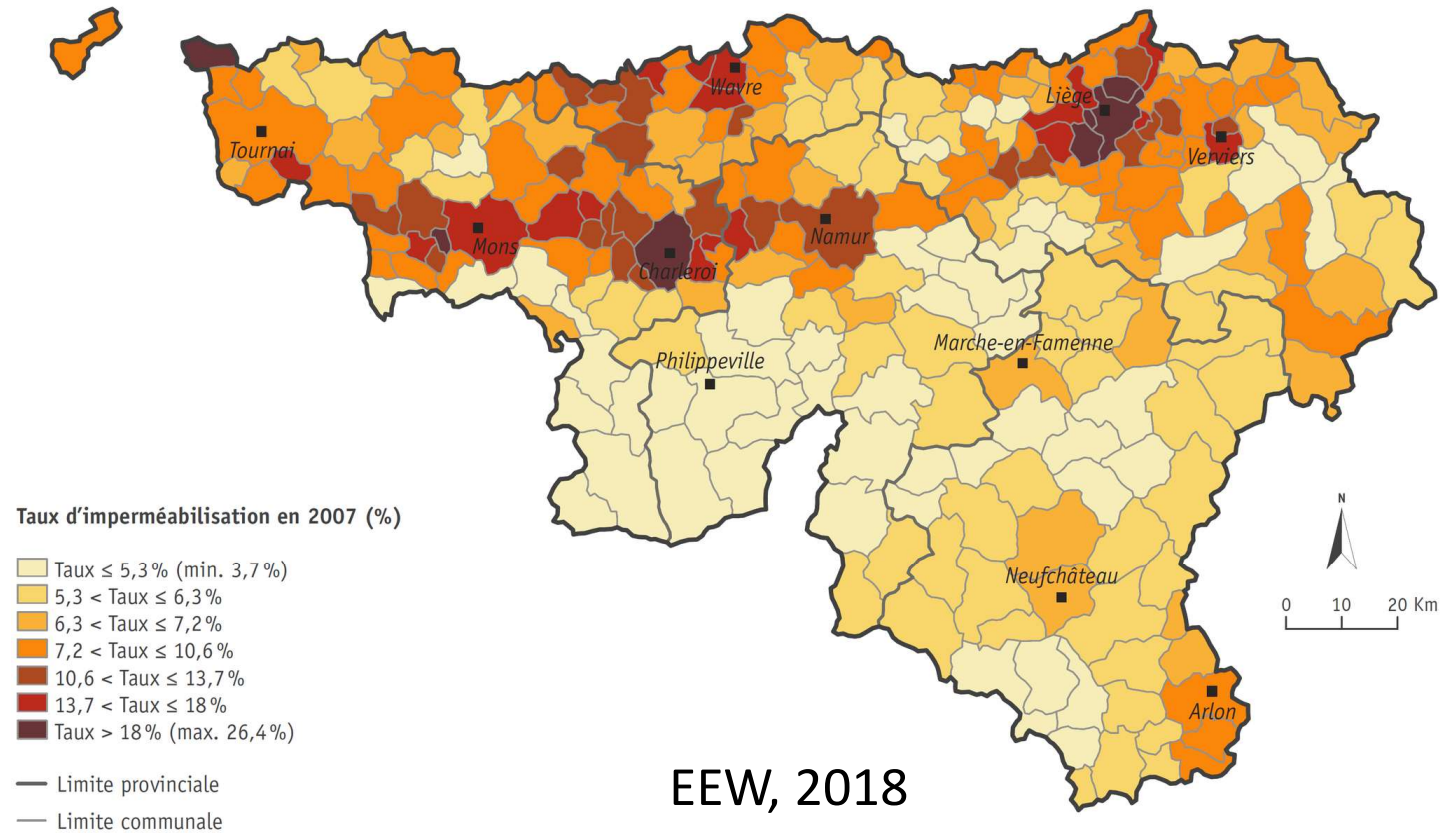
Eligible: winter crop, temporary/permanent grassland, long intercropping

2 – Where we stand



4) Soil sealing

=> Estimated in 2007

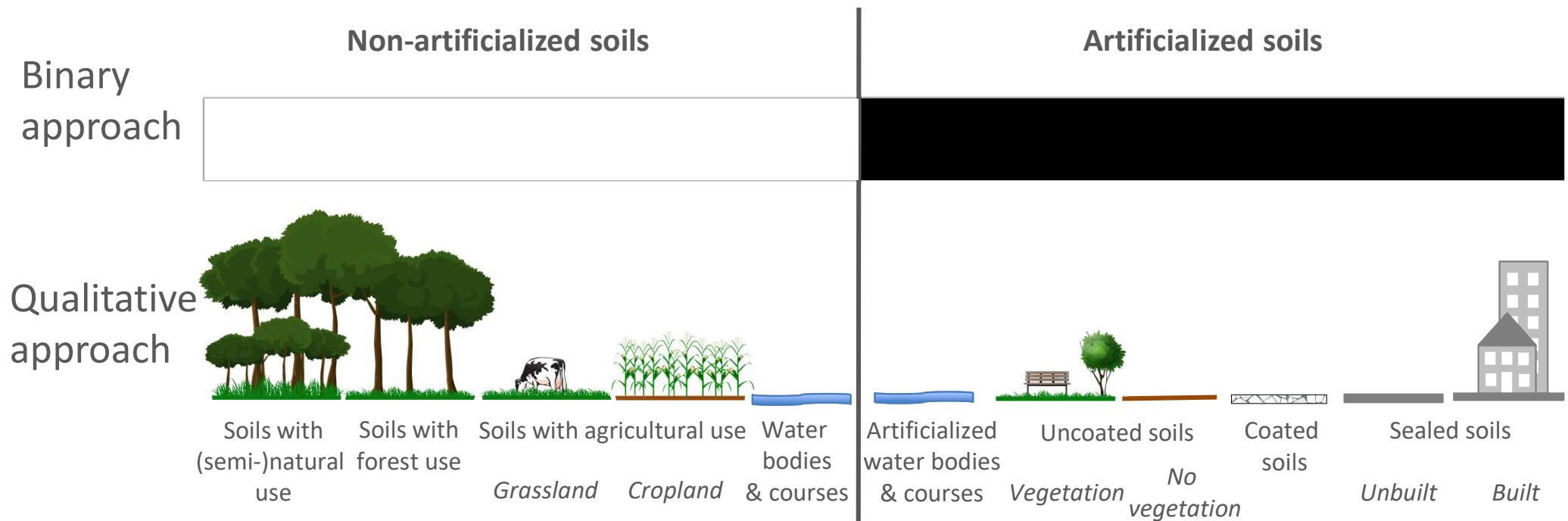


2 – Where we stand



4) Soil sealing

=> Development of a typology for artificialisation and soil sealing + mapping tests



+ discussion on links between typology and soil ecosystem services

2 – Where we stand



5) Additional soil issues

- Biomass demand for energy (sustainability criteria, « soil plan »)
- Loss of fertility in forest soils (export > import)
- Water retention / infiltration (floodings / droughts)

2 – Where we stand



➤ Latest policy orientations

1) Regional Political Declaration – Transition plan (2019 – 2024)

- ❖ **Remediation & recycling** of urban polluted sites, **remediation of brownfields**, development of « **food belts** »
- ❖ **Reduction of urban sprawl** : ceiling of land take in 2025 and no net land take in 2050 (protection of agricultural land, maintain/reuse/restoration of existing built-up areas, urban densification, biodiversity restoration)
- ❖ **Reduction of soil erosion** (soil cover and climate change adaptation)
- ❖ **Improvement of soil organic carbon** through adapted agricultural practices
- ❖ **Improvement of biodiversity** (ecological network) and **protection of forest soils** in view of adaptation to climate change (regional forest plan)
- ❖ Reduction of the **chemical substances exposure** (endocrine disruptors, ...) and reinforcement of the ENVieS plan (Environment-Health)

2 – Where we stand



➤ Latest policy orientations

2) Recovery Plan after Covid-19 / Flood / EU recovery plan (2020 – 2025)

- Axe 2 – Ensure environmental sustainability
 - => SO 2.4 – Preserve biodiversity and environment
- ✓ **Soil actions** (114 à 122) for a total budget of 28,5 M€ (9,25M€ for other thematics than pollution)
 - 114-115-117-118 – actions targeting « **soil quality / advisory system** » (SPW/DPS + AWAC + CRAW)
 - 116-119-120 – actions targeting « **geodata / land take & soil sealing** » (SPW/DEMNA)
 - 121-> development of **excavated soils** grouping centers (SPW/DPS)
 - 122-> rehabilitation of the most **problematic landfills** (SPAQuE)

3 – The new EU soil strategy



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3 – The new EU soil strategy

EU driven actions



Soil for climate change mitigation and adaptation

Improve digital knowledge, monitoring and research on soil

Soil health and circular economy

Making sustainable soil management (SSM) the new normal

Preventing desertification

Private finance and EU funding

Soil literacy and societal engagement

Preventing soil pollution

Soil biodiversity for human, animal and planet health

Healthy soils for clean water

Restoring degraded soil



3 – The new EU soil strategy



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Expected MS driven actions



- to set **net land take reduction targets** to 2030 **by 2023**
- to integrate the "**land take hierarchy**" principles (**avoid** > **reuse** > **minimize** > **compensate**)
- to **phase out financial incentives** that go **against** the "land take hierarchy"
- to give priority to **re-use and recycling of land** and the **quality of soils** through appropriate regulatory initiatives



- to establish a **system of soil health certificates for land transactions**, with support by the EU research program and mission 'A Soil Deal for Europe', if this is not included in the SHL



- to integrate soil and land use management in **river and flood risks management plans** through Nature-Based Solutions (NBS)



- to take long-term appropriate measures to **prevent and mitigate desertification**, e.g. by reducing water use and adapting crops to the local water availability, coupled with wider use of drought management plans and application of sustainable soil management

3 – The new EU soil strategy



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Expected MS driven actions



- to integrate soil sustainability and protection under **EU Cohesion Policy**
- to ensure a **strong contribution of the CAP SP** to maintaining and enhancing soil health
- to set up the "TEST YOUR SOIL FOR FREE" initiative
- EC together with MS:
 - to prepare a set of 'sustainable soil management' practices, including regenerative farming in line with **agroecological principles**
 - to create a **network of excellence of practitioners**, and an inclusive network of SSM ambassadors, including on regenerative and organic agriculture.



- to set-up farm sustainability tools for nutrients (**FaST**), as part of the farm advisory services under the new CAP
- To improve **soil monitoring** and **exchange best practices** within EU
- To increase **soil literacy** and **awareness raising** by promoting soil health at various levels and bring soils closer to citizen's values

4 – Conclusion

- To develop a **soil strategy** is a long process requiring a **long term political will**
=> in Wallonia, dedicated soil legislation at beginning of XXIst century, subsequent continuous development (R&D, legal) and renewed political commitment
- **Soil legislation** must be settled **on its own** (soil quality & function/services, land use approach, monitoring, prevention / restoration principles) **but strongly embedded in various sectoral policies** when coming to implementation (land planning, waste, water, environmental permits, agriculture, circular economy, energy, health,...)
- From negative (degradation) to **positive integrated concept** (soil health & services)
- **Coherence** between soil strategy developed in Wallonia and that of EU level
- Opportunity of the **Walloon Recovery Plan** to boost actions towards soil health management in line with future possible EU Soil Health Law



Thanks for your attention !

