



SURFACE

International Standards and Strategies for the
Reduction of Land Consumption

Main findings

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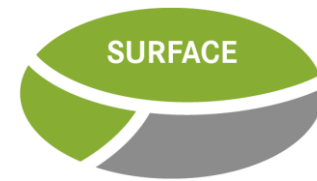
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SURFACE: International Standards and Strategies for the Reduction of Land Consumption



Aims:

- Comparing land-take trends and goals, strategies and policy instruments to reduce land land-take across different (EU) countries
- Identifying promising approaches to combat land take (policies, instruments)
- Building / reinforcing an international and interdisciplinary network of land take experts & fostering knowledge exchange

Duration: 2017-2022

Funding: German Federal Environment Agency

Methods:

- 2 International expert surveys
- Literature review
- 4 Workshops / Symposia

Main results:

- Status quo of land take regulation in Europe and beyond
- Terminological challenges and implications for harmonisation of monitoring and regulation
- Land take in Environmental Impact Assessments

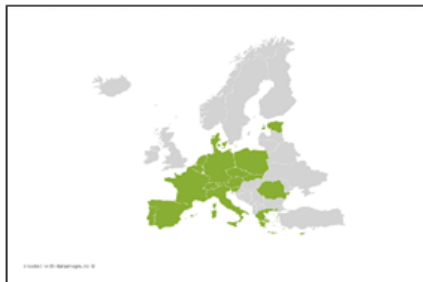
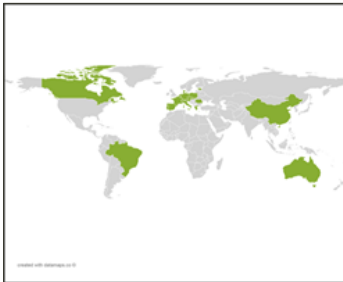


SURFACE: Two international expert surveys



1st survey: Focus on national **goals, strategies and policy instruments** for the reduction of land take

- **Aim:** better understanding of national situations + approaches
- 25 questionnaires completed by experts (21 countries)



2nd survey: Focus on land take within **Environmental Impact Assessment (EIA)**

Article 3

1. The environmental impact assessment shall identify, describe and assess in an appropriate manner, in the light of each individual case, the direct and indirect significant effects of a project on the following factors:

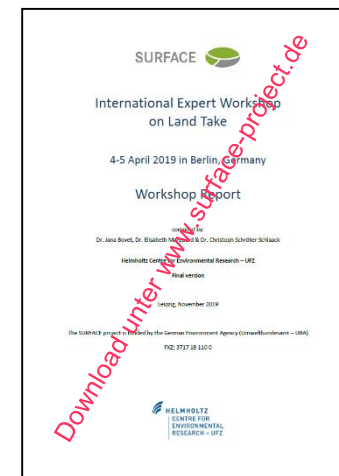
- (a) population and human health;
- (b) biodiversity, with particular attention to species and habitats protected under Directive 92/43/EEC and Directive 2009/147/EC;
- (c) land, soil, water, air and climate;

- **Aim:** better understanding of national transposition + implementation of EU-directive
- Does the inclusion of the factor land make any difference?
- 22 questionnaires completed by experts (11 EU countries)

SURFACE: 1st survey - Focus on instruments for the reduction of land take

Results of the 1st survey

- **Terminological issues:** „Flächeninanspruchnahme“ (German), „artificialisation“ (French) or „urbanizacion“ (Spanish), „land take“ (English) at the EU level: land consumption / land take → Conceptual clarifications needed
- **Implementation deficits** are widespread, but nationally heterogeneous (e.g., unstable political conditions, corruption, implementation failures, lack of control mechanisms)
- **Promising approaches:** quantified targets, tradable land planning permits, infrastructure cost calculators



SURFACE expert workshop 2019



SURFACE: Terminological issue: Land consumption or land take?

Results of
the 1st survey

Goal 11: Sustainable cities and communities

Target 11.3: By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries

Indicator 11.3.1: Ratio of **land consumption rate** to population growth rate, i.e. the percentage of current total urban land that was newly developed (consumed)



**SUSTAINABLE
DEVELOPMENT
GOALS**



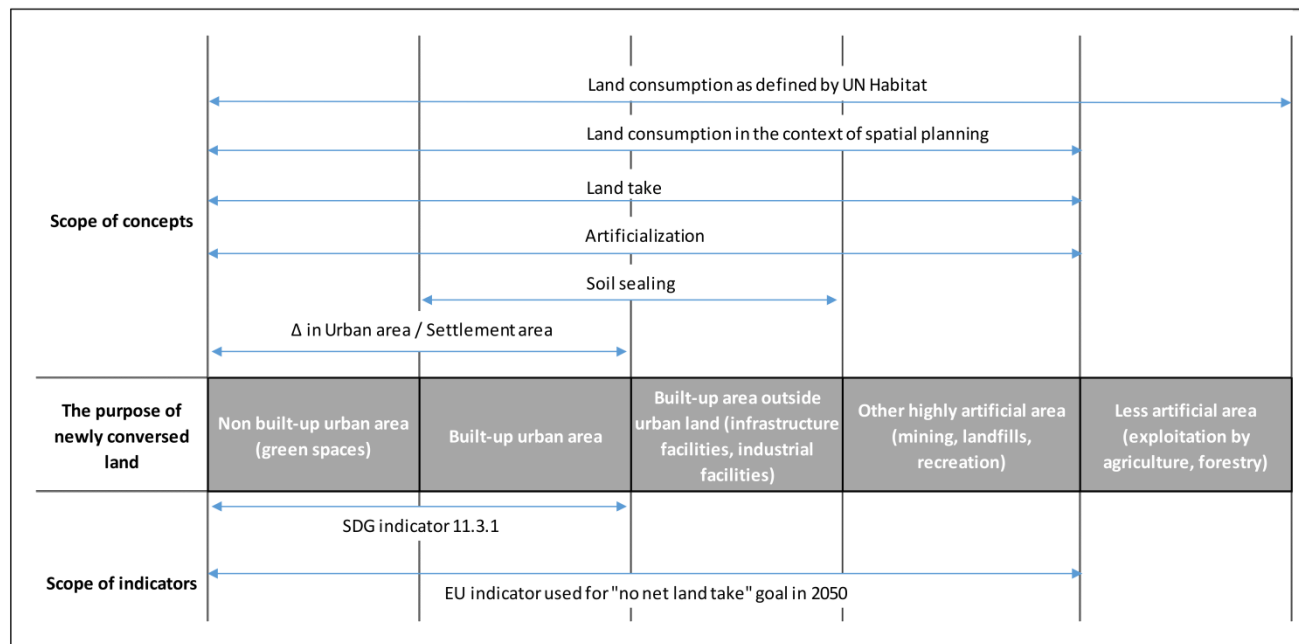
EU goal: **No net land take by 2050**

change in the area of agricultural, forest and other semi-natural land taken for urban and other artificial land development

SURFACE: Terminological issue: Land consumption or land take?

Results of
the 1st survey

- Inventory of approaches and definitions used in different contexts
- do **not use** land consumption and land take **synonymously**
- Consider the **limitations of concepts**

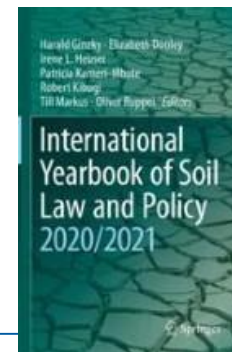


Marquard et al. (2020):
Land consumption and land take:
enhancing conceptual clarity for evaluating
spatial governance in the EU context.
Sustainability 12(8269)

SURFACE: Promising approaches Quantified targets

Results of the 1st survey

	Quantified target & year when it was set	Current land take	Previous target	Remark
1a) Selection of quantified targets for land take				
Germany	Less than 30 ha/d until 2030 (2016)	56 ha/d (2018)	30 ha/d until 2020 (2002)	Target relaunched and modified in 2016
Switzerland	No-net soil consumption from 2050 onwards (2020)	407 m ² settlement area/inhabitant (2018)	max. 400 m ² settlement area/inhabitant (2012) (stabilization target)	The target max. 400 m ² artificial surface/inhabitant was removed in 2016
Flanders	3 ha/d until 2025 and 0 ha/d until 2040 (2018)	6 ha/d (2018)		No longer included in the current coalition agreement
Wallonia	6 km ² /a until 2030 and 0 km ² /a until 2050 (2019)	10.7 km ² /a (between 2015 and 2018)		Included in the strategic master plan 2019 not yet in force
1b) Selection of former quantified targets				
Austria	2.5 ha/d until 2010 (2002)	11.8 ha/d (between 2017 and 2019 yearly averaged)		Removed in 2010; mentioned in the governmental programme 2020–2024 but without implications
Luxembourg	1 ha/d until 2020 (2010)	0.5 ha/d (2019)		Removed in 2019



Bovet, J., Marquard, E., 2021.
Quantitative targets, tradable planning permits & infrastructure cost calculators: Examples of instruments addressing land take in Europe.
In: Ginzky, H., Dooley, E., Heuser, I.L., Kasimbazi, E., Kibugi, R., Markus, T., Qin, T., Ruppel, O. (Ed.), International Yearbook of Soil Law and Policy, Cham.



- Schatz, E.-M., Bovet, J., Lieder, S., Schroeter-Schlaack, C., Strunz, S., Marquard, E. (2021): Land take in environmental assessments: Recent advances and persisting challenges in selected EU countries. *Land Use Policy* 111, 105730.
- Marquard, E., Bartke, S., Gifreu Font, J., Humer, A., Jonkman, A., Jürgenson, E., Marot, N., Poelmans, L., Repe, B., Rybski, R., Schröter-Schlaack, C., Sobocká, J., Sørensen, M.T., Vejchodská, E., Yiannakou, A., **Bovet, J.**, (2020): Land consumption and land take: Enhancing conceptual clarity for evaluating spatial governance in the EU context *Sustainability* **12** (19), art. 8269
- Bovet, J., Marquard, E. (2021): Quantitative targets, tradable planning permits & infrastructure cost calculators: Examples of instruments addressing land take in Europe. In: Ginzky, H., Dooley, E., Heuser, I.L., Kasimbazi, E., Kibugi, R., Markus, T., Qin, T., Ruppel, O. (Ed.), *International Yearbook of Soil Law and Policy*, Cham.
- Bovet, J., Marquard, E., Schröter-Schlaack, C. (2019): International Expert Workshop on Land Take, 4-5 April 2019 in Berlin, Germany. Workshop Report.
https://www.ufz.de/export/data/464/235934_SURFACE%20Workshop%20report_final_2019-11-07.pdf