



Ecosystem Services in the Planning of Green Infrastructure

Make cities ...

- **healthier**
- **more resilient**
- **livable**

The IMECOGIP Toolbox

IMECOGIP is a project funded by the BMBF – Germany's Federal Ministry for Education and Research, in the frame of the application-oriented SURE funding priority – Sustainable Urban Regions (SURE).

More information <https://sustainable-urban-regions.org/imecogip>



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EnhanceES
The IMECOGIP Toolbox



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Green Infrastructure Planning & Ecosystem Services

What nature does for us ...

Provisioning services



Regulating services



Cultural services



Good planning considers what nature can do for us.

Against the Knowledge & Communication Gap!

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Green Infrastructure Planning & Ecosystem Services



Ecosystem services
– too complicated ?



– for experts only ?



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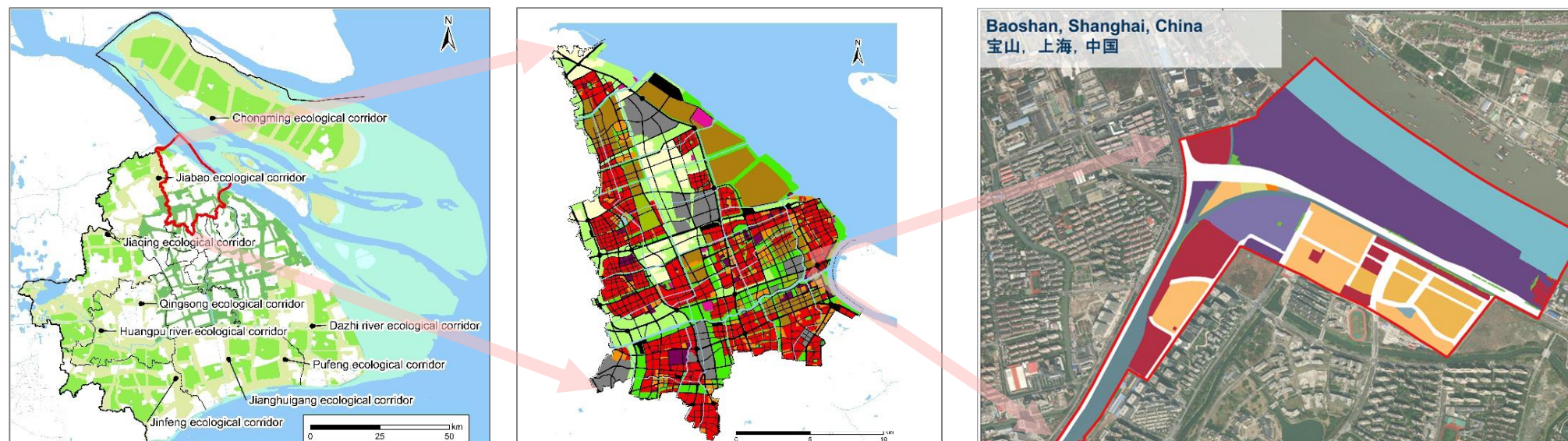
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How can we better inform **planners**
decision makers ?

Green Infrastructure Planning & Ecosystem Services

The project developed a toolbox that planners and experts can use

- to systematically assess the ecosystem services of any area,
- be it a building block, a neighborhood, district, or region.



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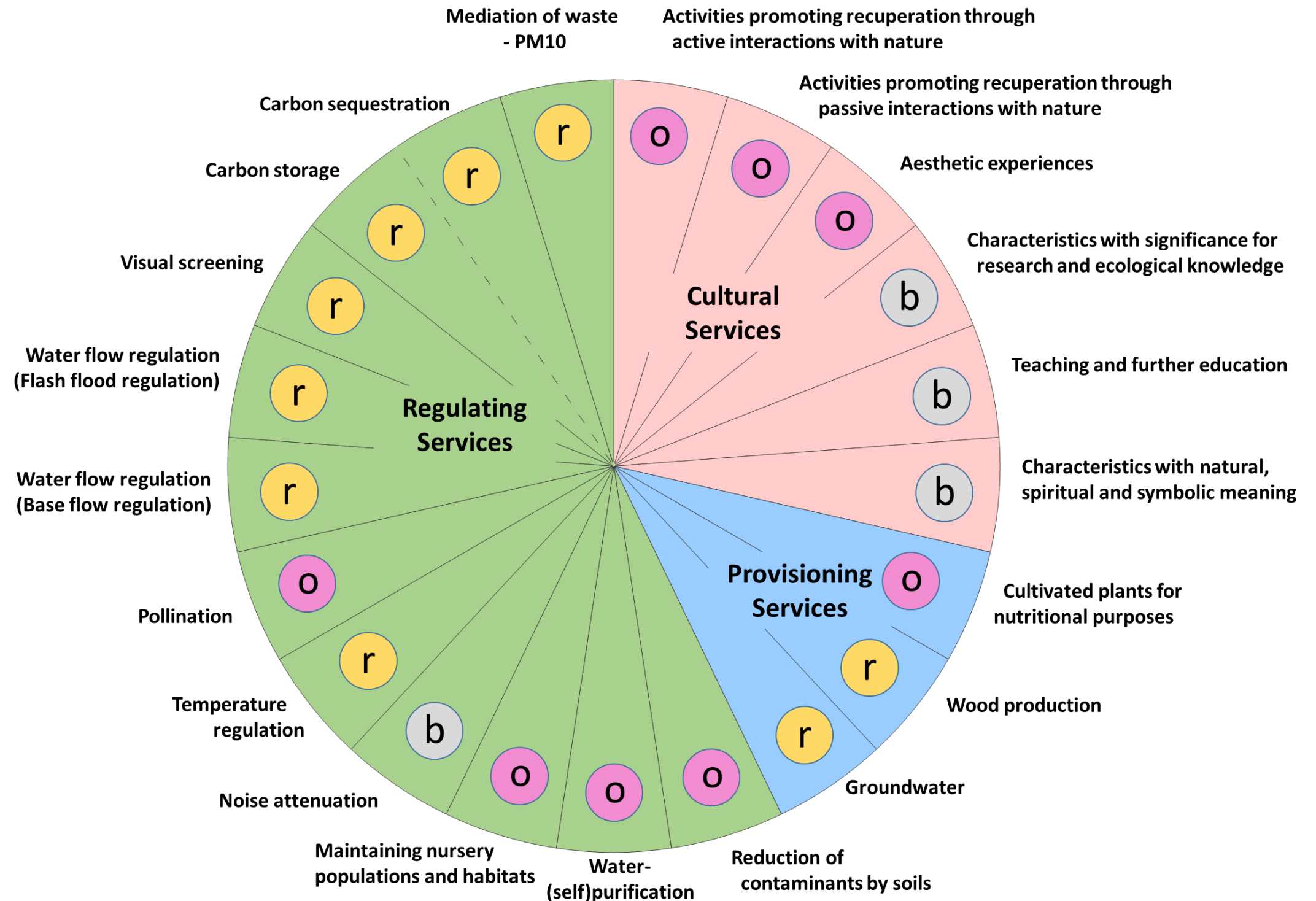
EnhancES
The IMECOGIP Toolbox

Green Infrastructure Planning & Ecosystem Services

Assessing ecosystem services with the EnhancES Toolbox

EnhancES uses different scale levels for the ecosystem services

- r ratio scale
- o ordinal scale
- b binary



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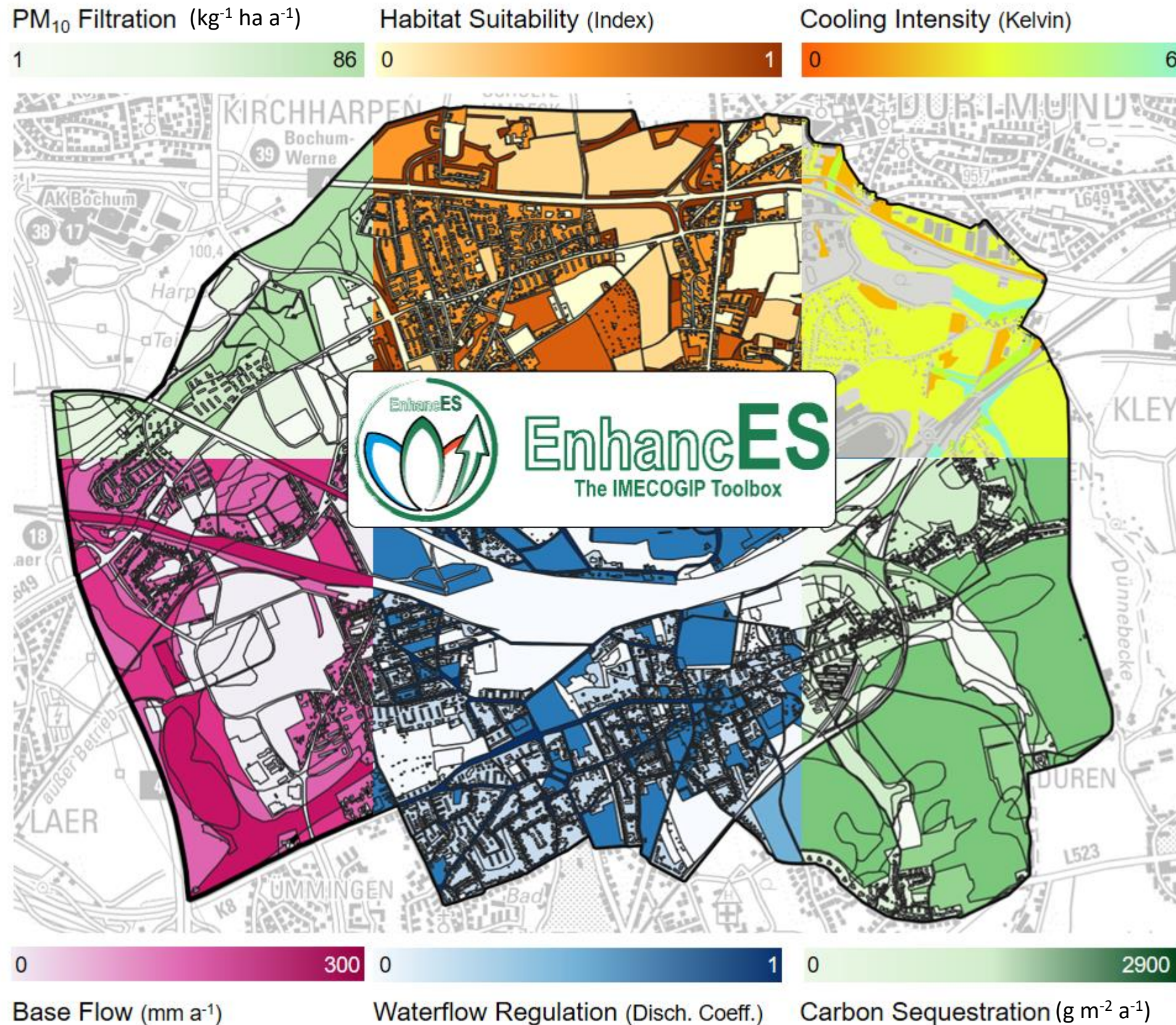
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Green Infrastructure Planning & Ecosystem Services



EnhancES
The IMECOGIP Toolbox

EnhancES' outputs come in maps



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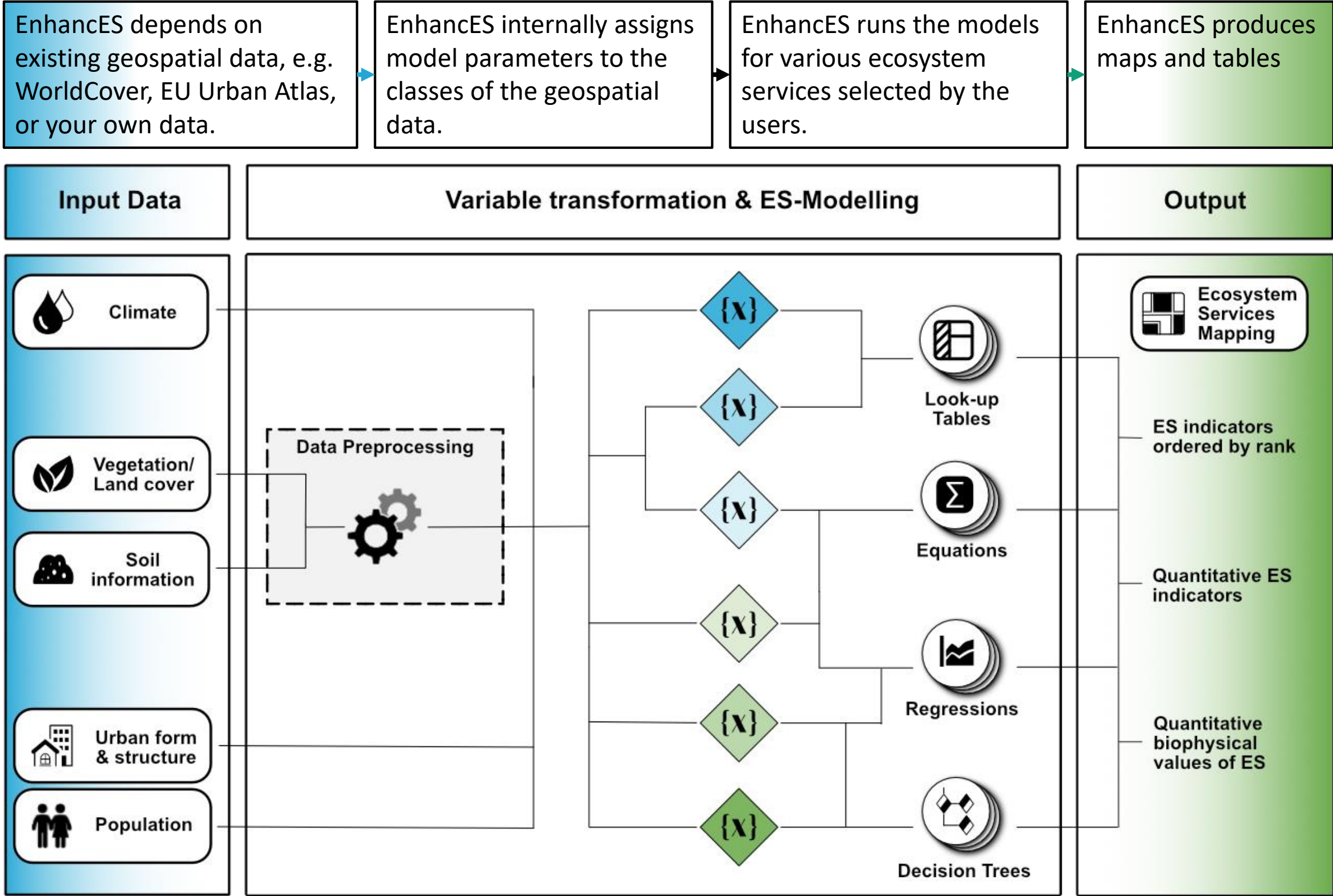
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... and many more

Green Infrastructure Planning & Ecosystem Services

How does EnhancES work?



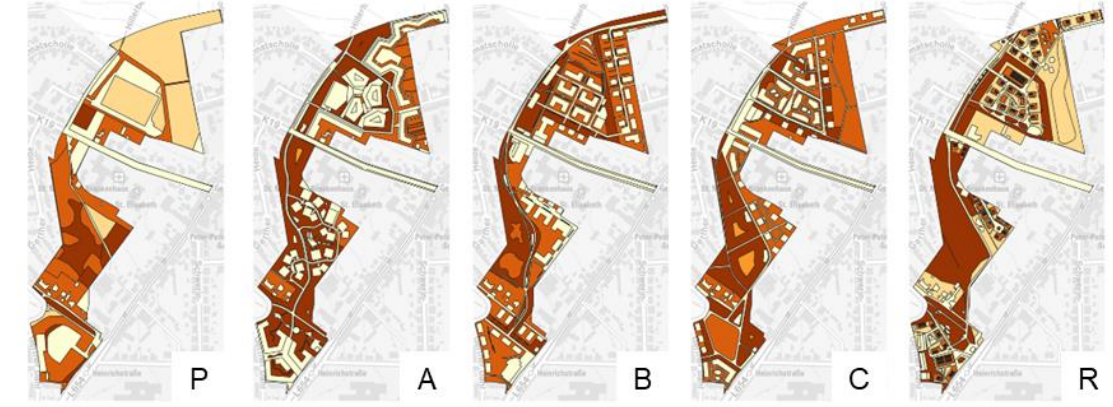
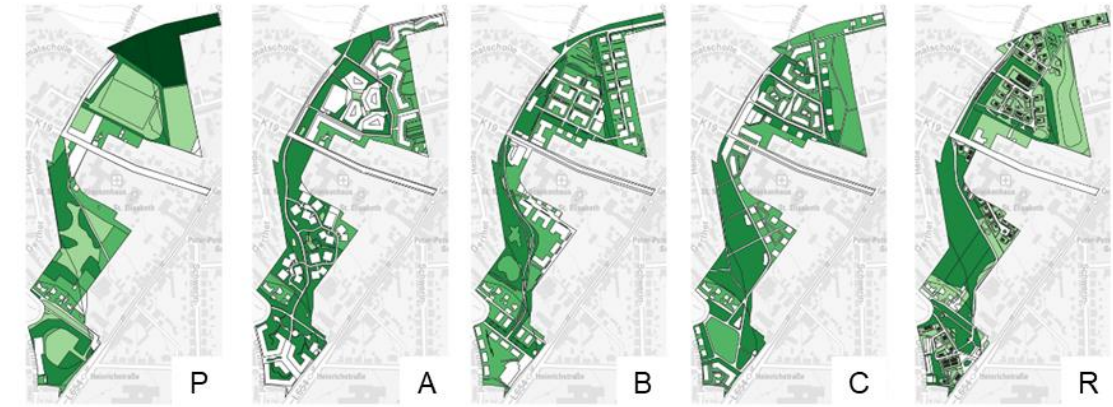
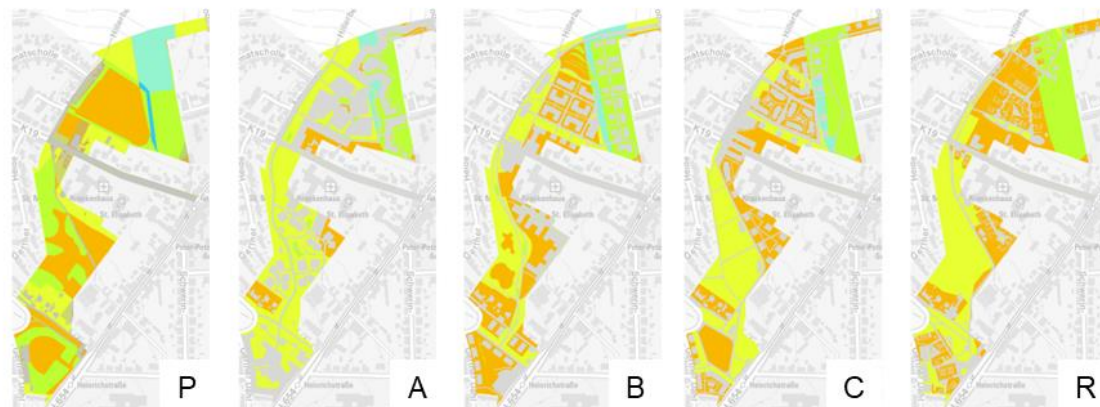
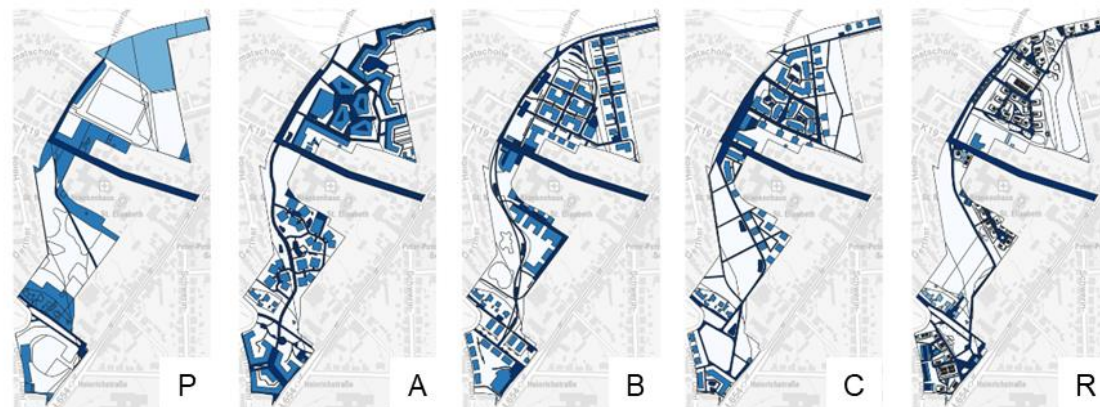
Green Infrastructure Planning & Ecosystem Services

Planning a residential area
Example 1/2

1. Competing Urban Design Plans (P, A, B, C & R)

2. Evaluating six Ecosystem Services

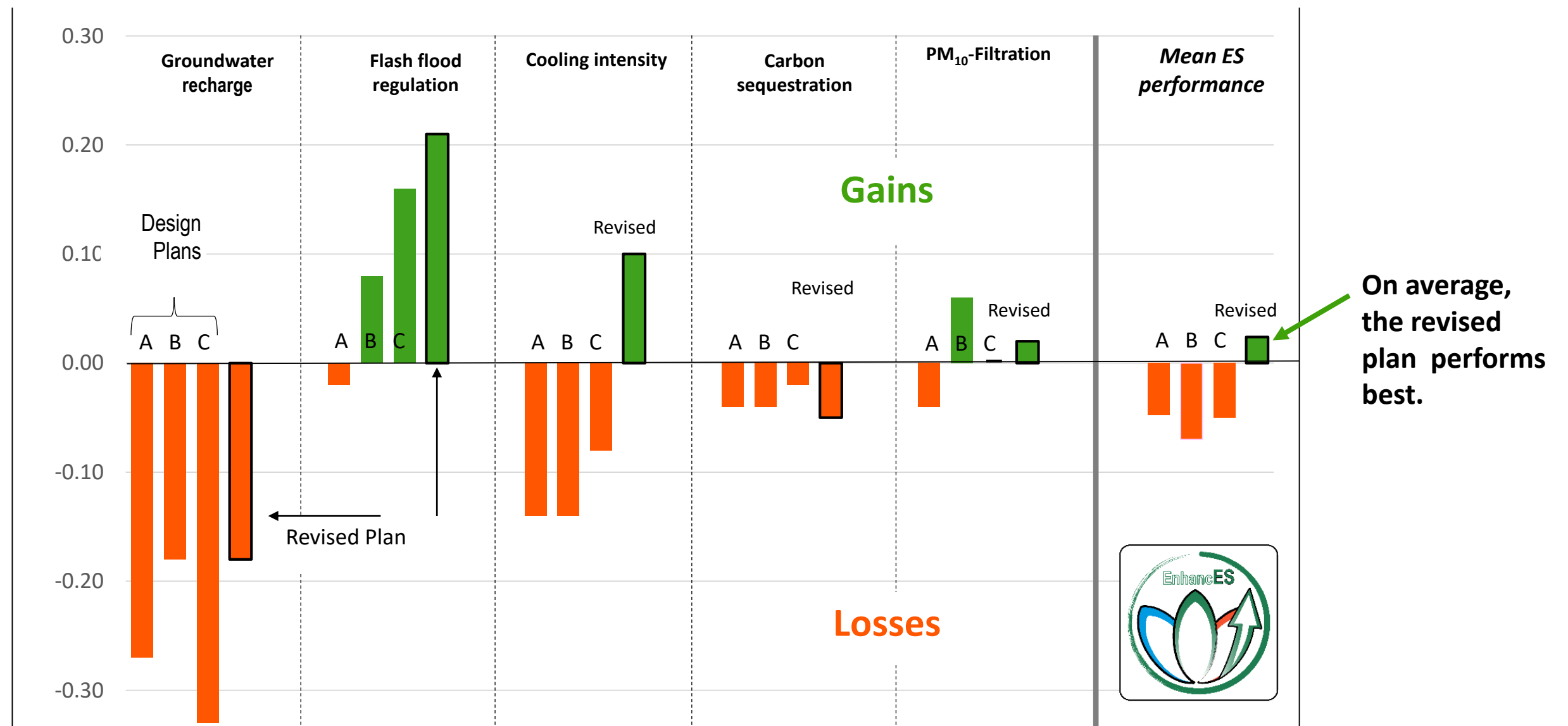
3. Results



Green Infrastructure Planning & Ecosystem Services

Planning a residential area
Example 2/2

Gains and **losses** of ecosystem service performances of design plans in relation to the present situation.



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**By systematically checking planning variants with EnhancES
you can optimize ecosystem services to enhance the wellbeing of people.**

Green Infrastructure Planning & Ecosystem Services



Plan nature-based solutions based on ecosystem services

EnhancES empowers actors

- Show ecosystem services on city maps
- Measure ecosystem services in your city

EnhancES' application fields

- Assess spatial inequalities and inequities.
- Justify action plans.
- Develop your own ecosystem services standards, specific for your city or region.



- Monitor temporal changes.
- Compare planning variants.
- Decide on measures to enhance ecosystem services in your plan.

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*Enhance participatory processes by
making ecosystem services
transparent to the informed citizens.*