

Kansen voor de Bovenstad

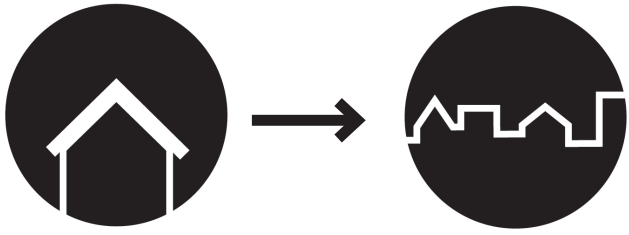
Kennissessie Groene Daken
Gorinchem - 20 september



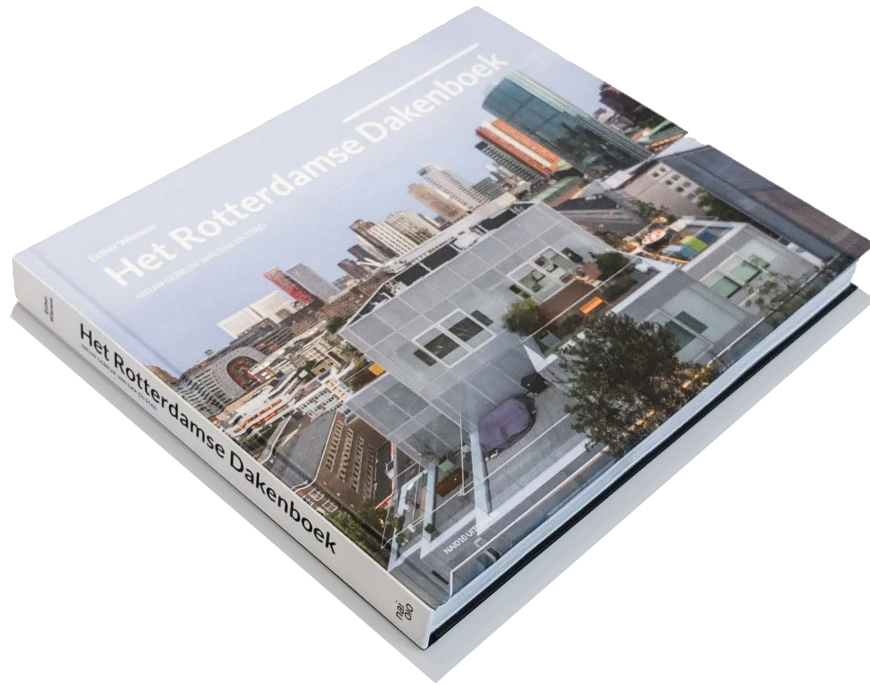
Dirk van Peijpe

DE URBANISTEN





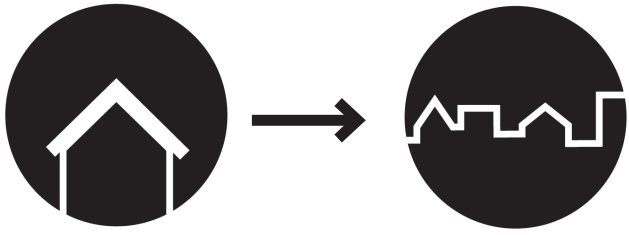
Van dak naar bovenstad





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OPPORTUNITIES FOR A SUSTAINABLE ROTTERDAM ROOFSCAPE

Rotterdam has a unique roof landscape created by historic events. After the 2nd world war, a lot of flat roofs have been built ranging from low rise buildings in the harbour to high rise buildings in the city centre. Rotterdam consists of 14.5 km² of flat roofs. All these roofs – From flat to inclined and from large to small – offer much more possibilities than expected. The municipality of Rotterdam wants to encourage citizens to actively use their rooftops. With joint forces, a colourful and unique roof landscape can arise in Rotterdam.

In a busy city with a high density, the roof landscape provides space for a multifunctional use. A potential that asks to be exploited. Rotterdam has challenges in terms of water storage, cooling and greening the city and generating sustainable energy. The roofs of the city offer plenty of space to deal with these challenges. The Rotterdam roof landscape is also perfectly suitable for urban activities, such as private terraces and public rooftop parks.

DIFFERENT TYPES OF SUSTAINABLE ROOFS



Green roofs come in two types: Extensive roofs with sedum or grass and intensive roofs that are accessible and have a broad mix of plants.



Blue roofs buffer extra rainwater in times of heavy precipitation. These roofs often have a special collecting system below a layer of vegetation.



Red roofs are actively used for purposes such as sports, parties, meetings and receptions.



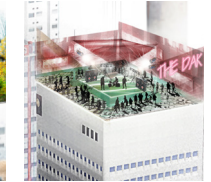
On yellow roofs sustainable energy is generated, e.g. with solar panels or urban wind turbines.



Roofs on high rise buildings offer space for seclusion and concentration, unique views and new insight



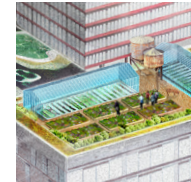
Roofs on high rise buildings are suitable for biodiversity; they are unreachable and provide overview for hunting animals and shelter for prey



Roofs on high rise buildings are places for celebration and fun with the skyline as scenery.



Roofs on high rise buildings are highly exposed to wind, especially if they are oriented directly west



Solid, firmly constructed, roofs are revived through urban agriculture



Large roofs of parking garages offer space for sports landscapes



Large commercial buildings are enriched with public roof top parks



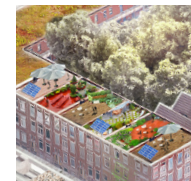
Aesthetic roof gardens contrast with the bold scenery of the city



The blue roof reflects the ever changing Rotterdam sky



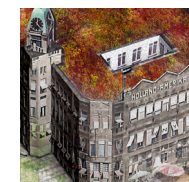
An energy landscape follows the urban composition of the post-war district, characterised by repetitiveness



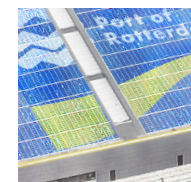
The 19th century building block has a colourful and intensively used roof landscape



The suburban street has an efficient roof landscape



A monument also gives opportunities for a sustainable roof



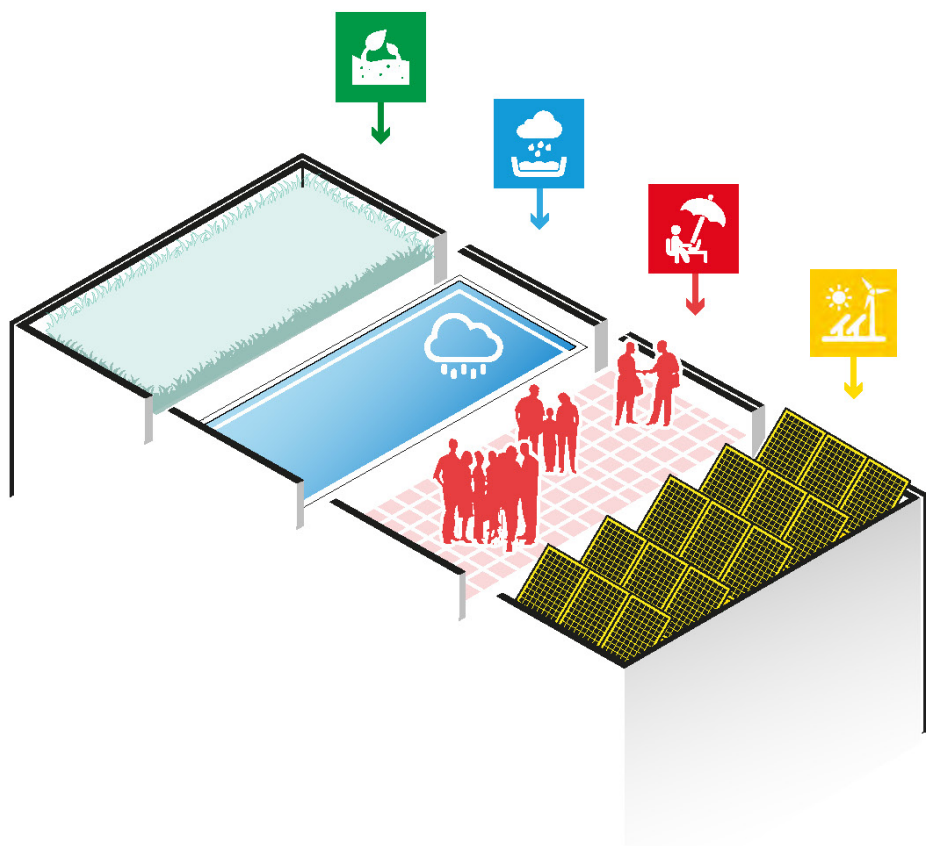
There is space for large-scale energy harvesting in solar fields on the roofs of warehouses in the harbour



There is space for large scale roof ecology in the story logistical area of the harbour



Het daklandschap is veelkleurig



Groene daken zijn begroeide daken. Deze daken kunnen extensief zijn, bijvoorbeeld in de vorm van een sedumdak of een grasdak. Een intensief groen dak is een toegankelijk groen dak waar doorgaans hogere beplanting op groeit zoals struiken.



Rode daken worden actief gebruikt voor activiteiten zoals sportactiviteiten, feesten, vergaderingen en borrels.



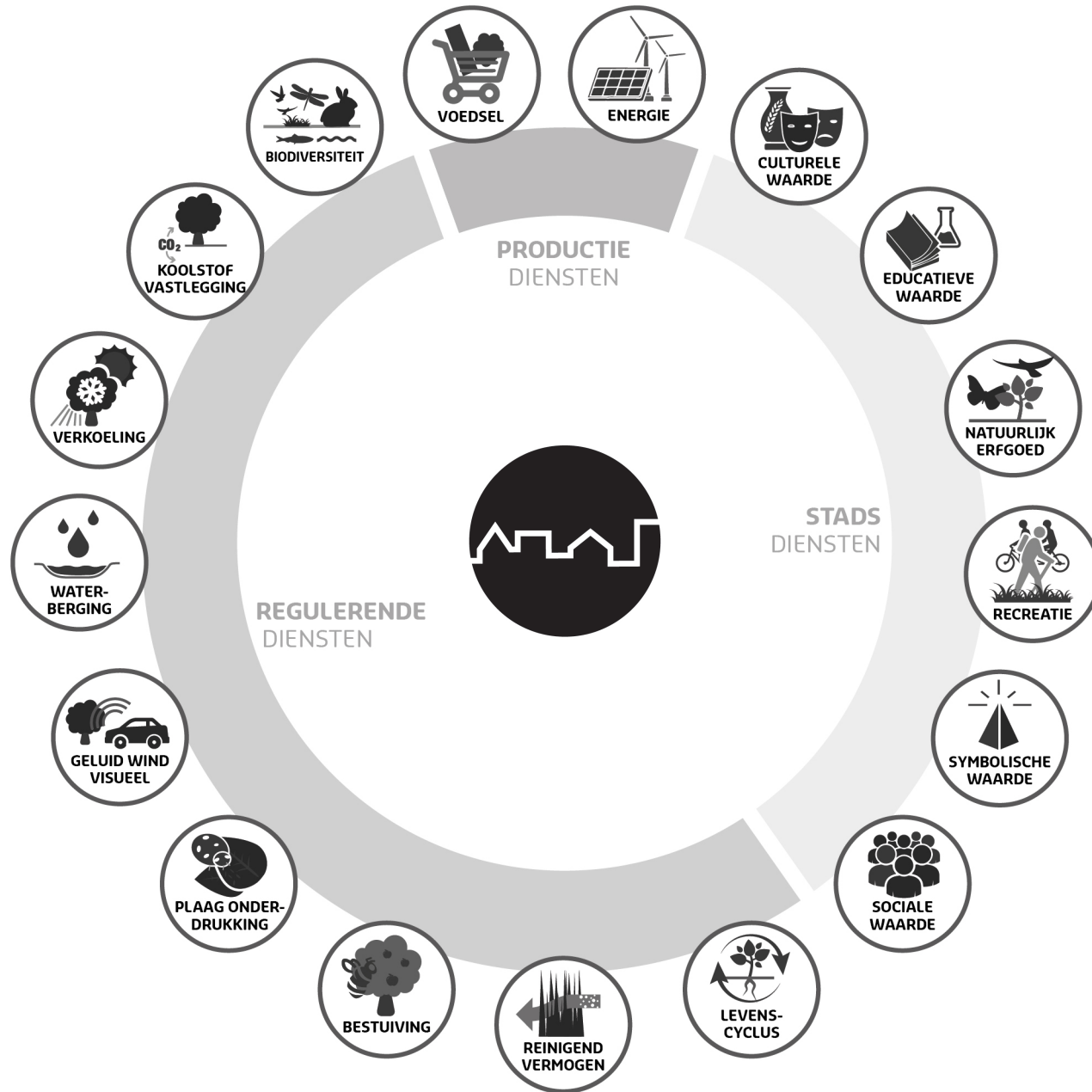
Blauwe daken zijn daken die extra regenwater kunnen bufferen in tijden van hevige regenval. Deze daken hebben vaak een speciaal krattensysteem onder de vegetatielaag waar water wordt opgevangen.



Op gele daken wordt duurzame energie opgewekt. De meest voorkomende methode om duurzame energie op te wekken op daken is via zonnepanelen.



Dakdiensten





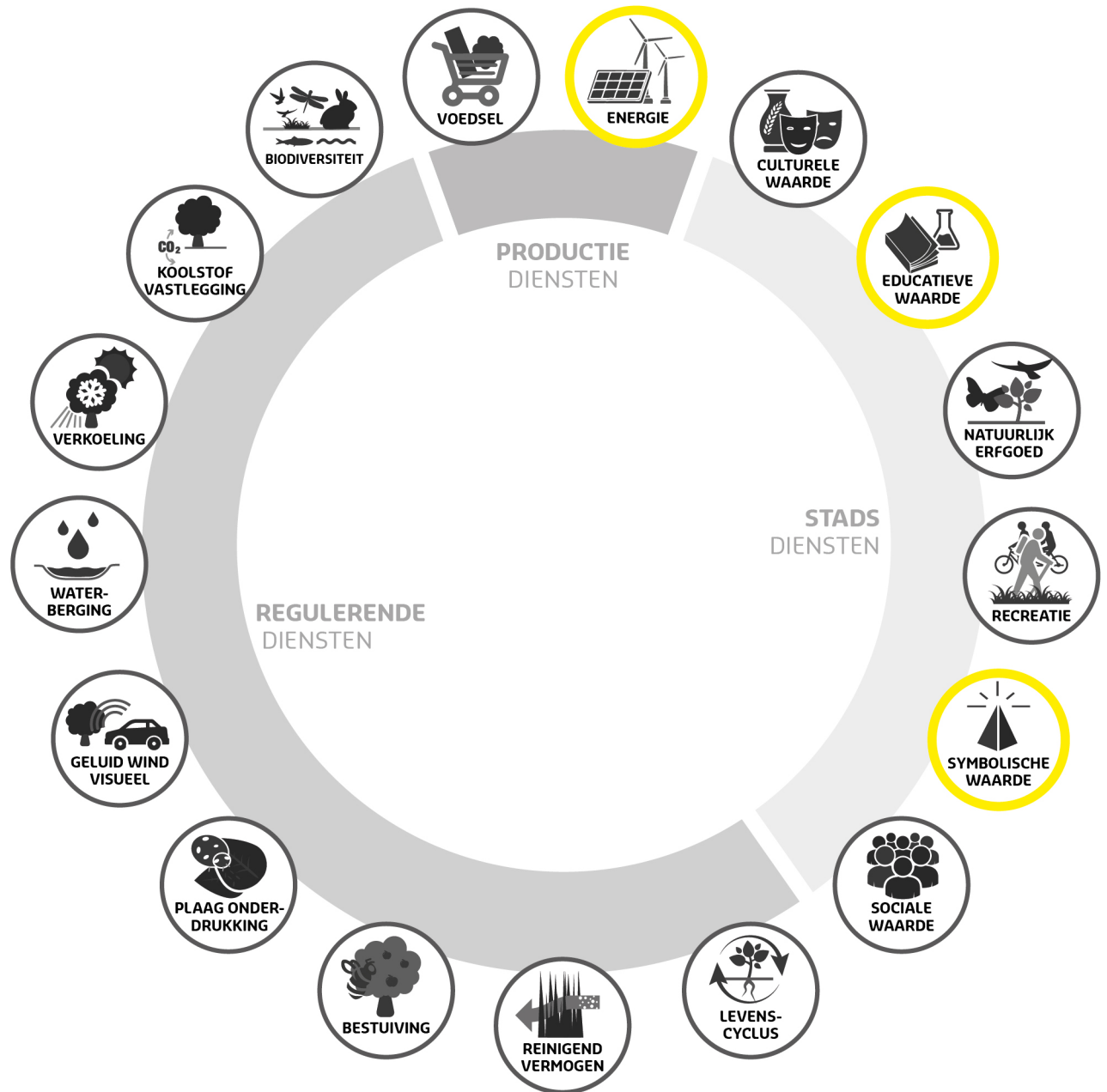
Gele Dakdiensten



compacte opwekking windenergie



opwekking van zonne-energie

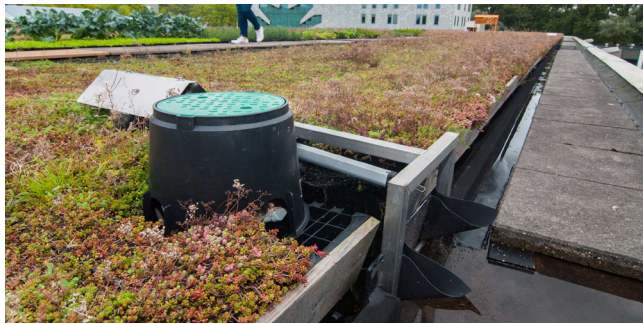




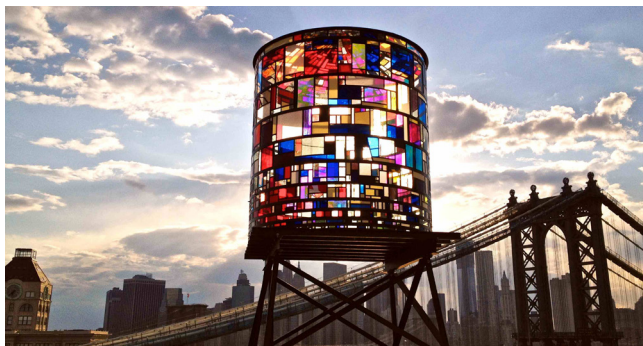
Blauwe Dakdiensten



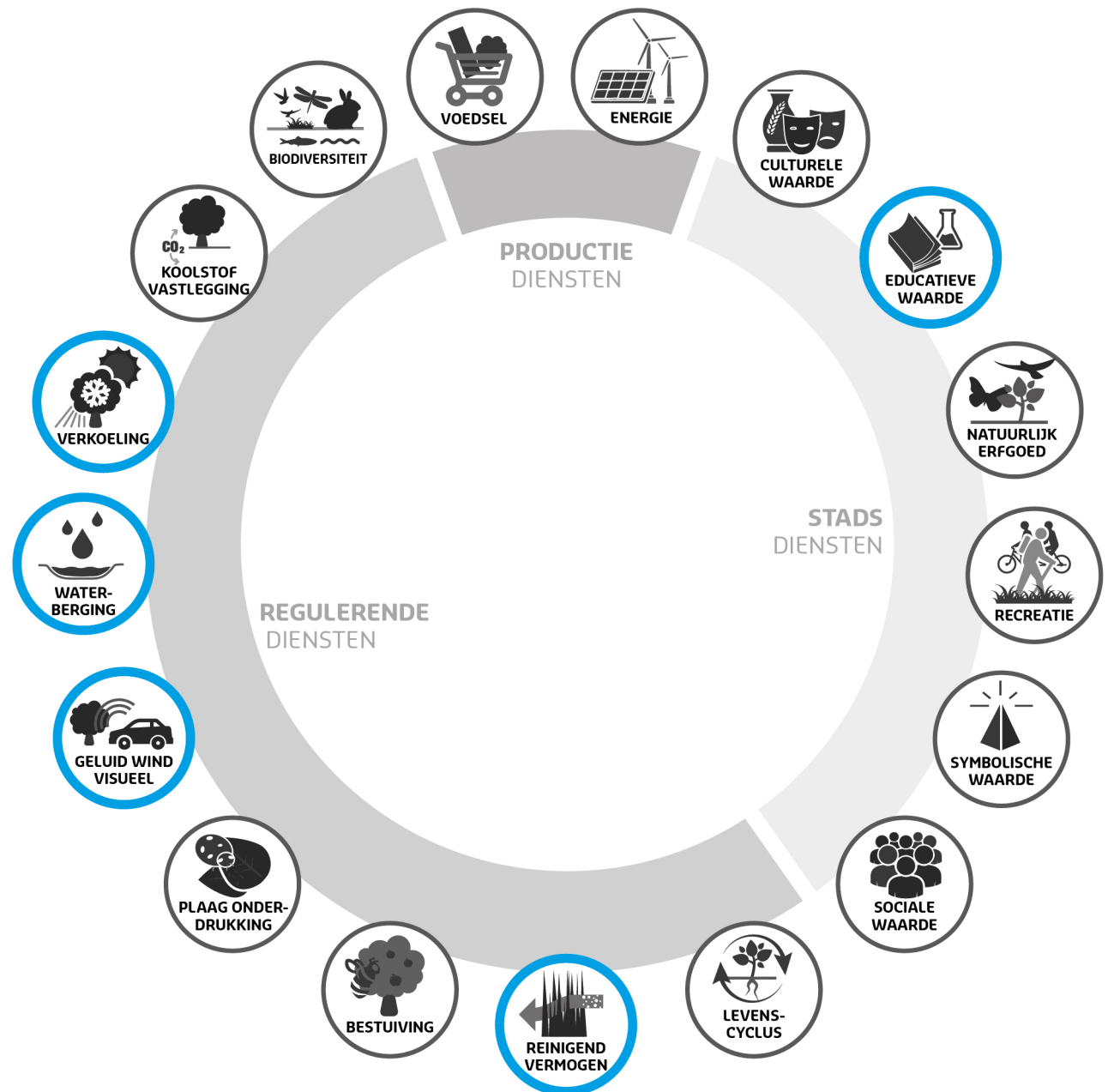
waterberging op het dak



polderdaken



hergebruik van water op het dak





Groene Dakdiensten



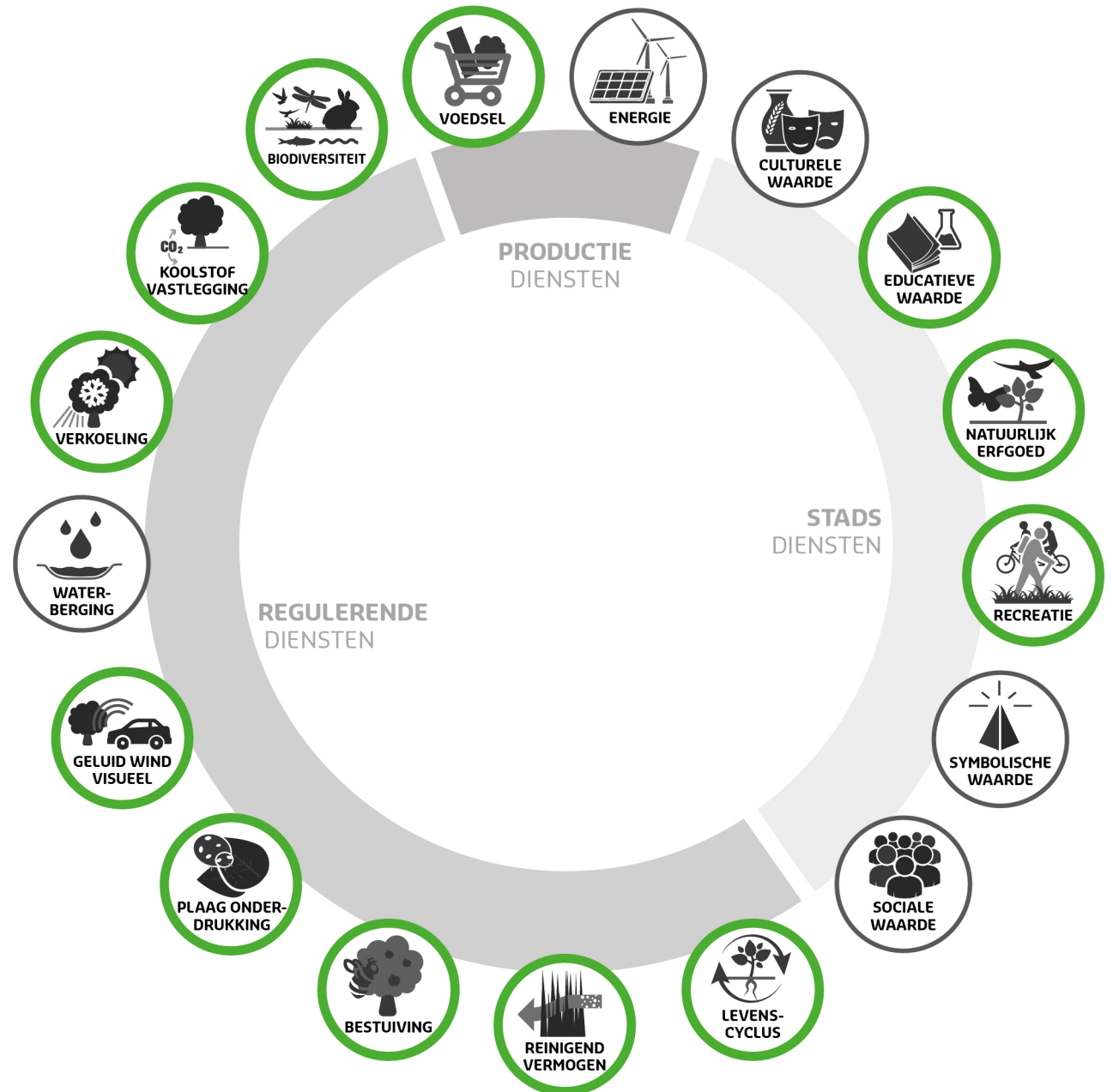
produceren van voedsel



verbetering van isolatie

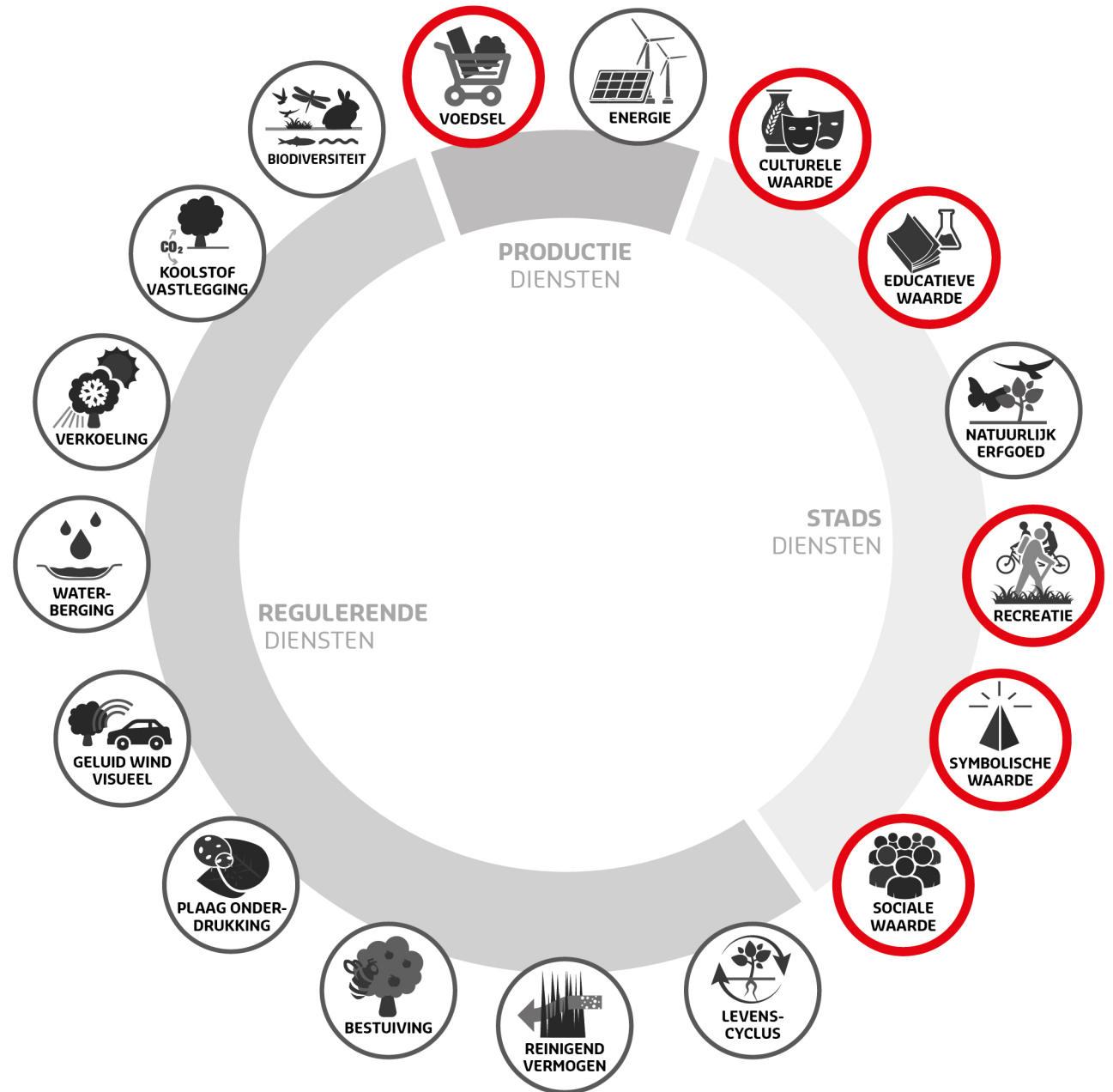


habitat voor nieuwe soorten fauna





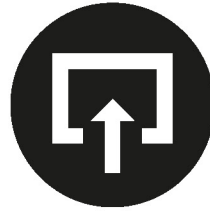
Rode Dakdiensten



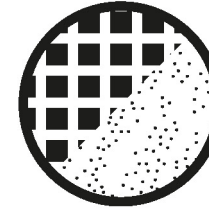
Kansen voor de bovenstad -> wat kan waar?



Draagkracht



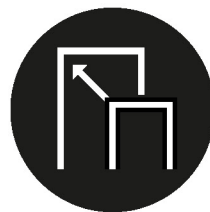
Toegankelijkheid



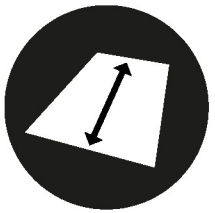
Context



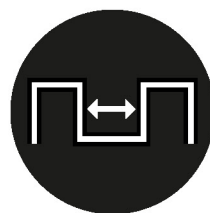
Dakvorm



Hoogte



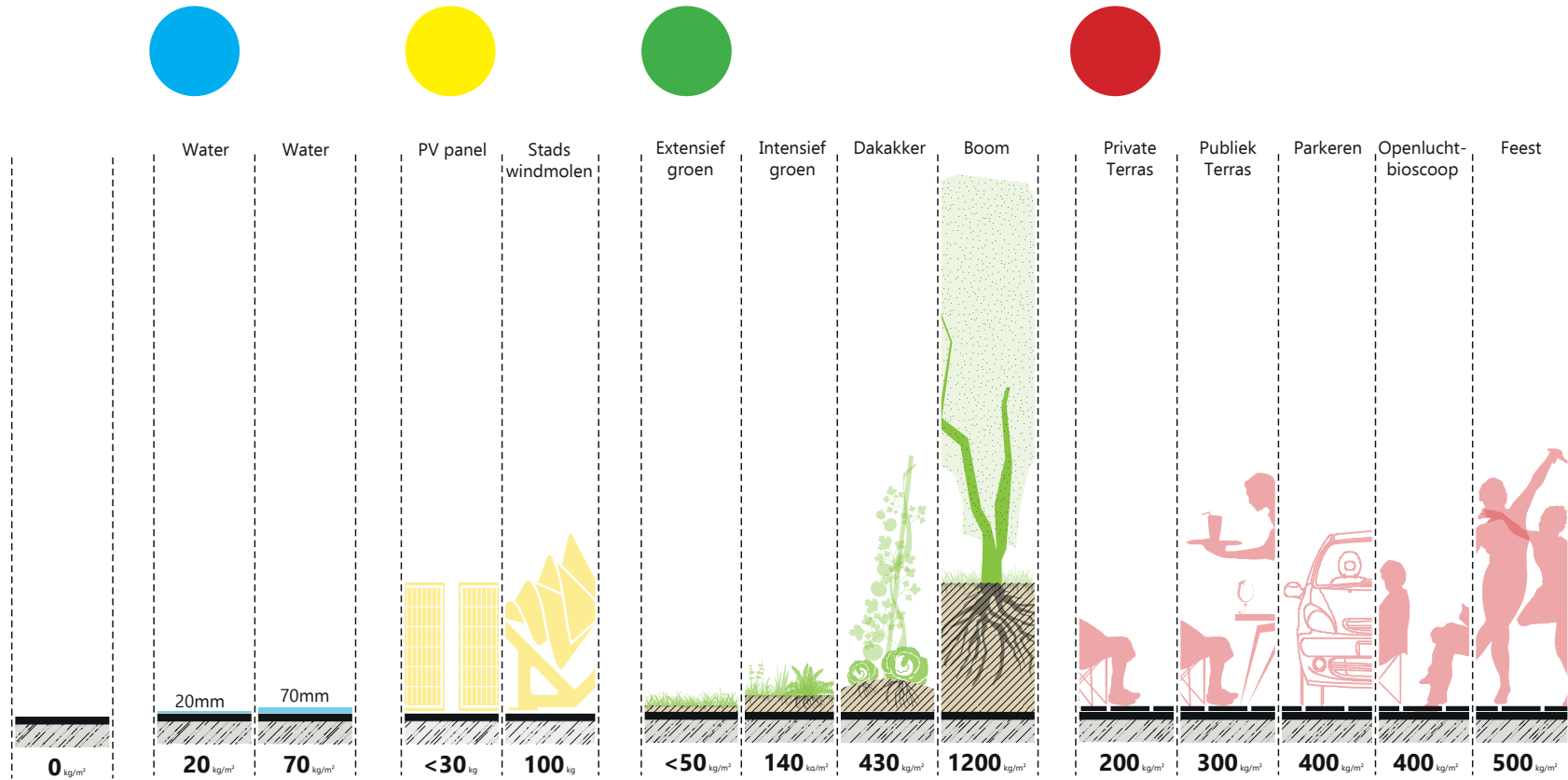
Grootte



Dichtheid



Draagkracht





Draagkracht



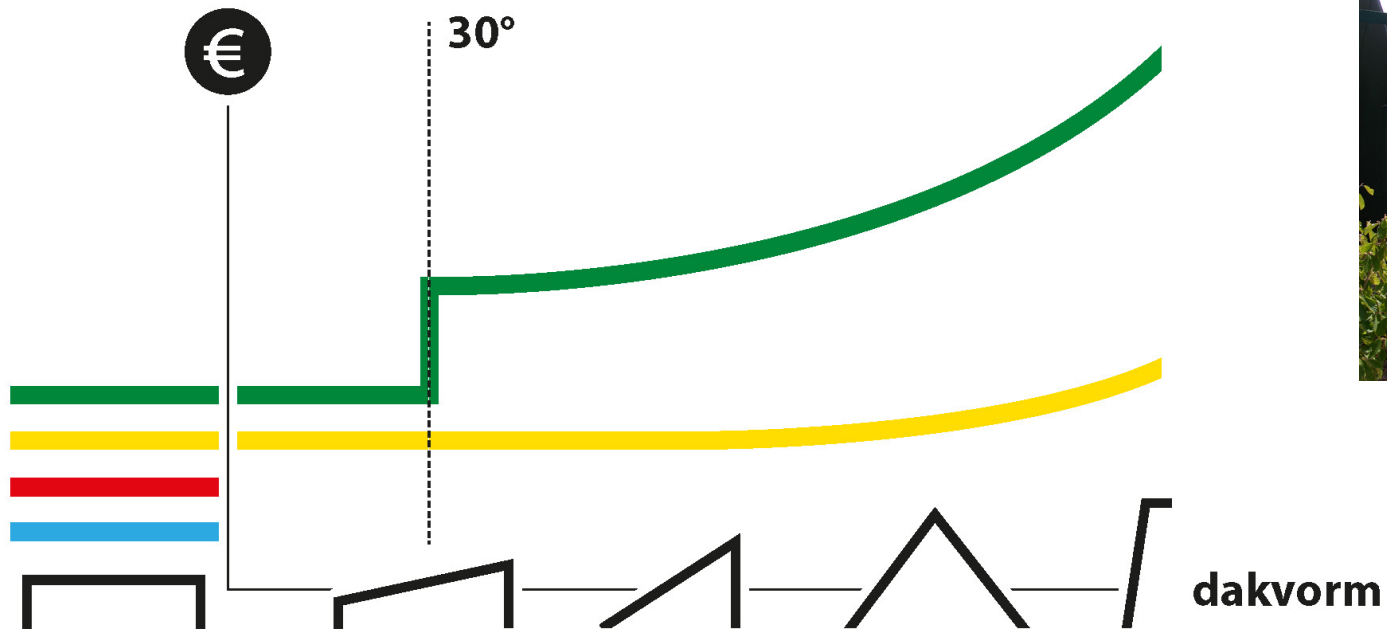
Lichtgewicht

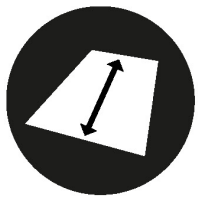


Zwaargewicht

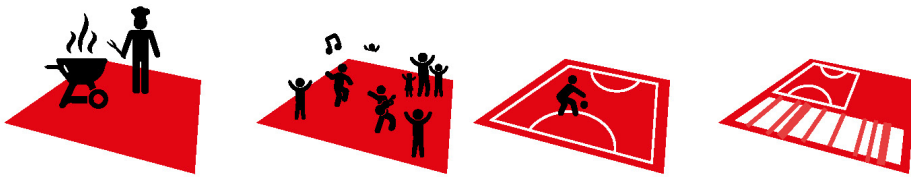
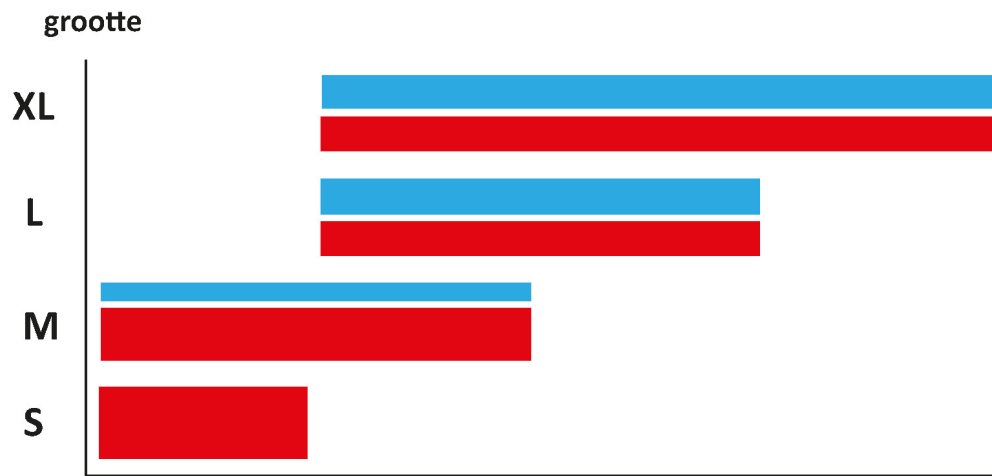


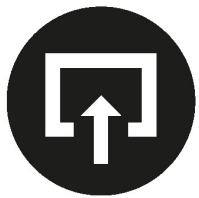
Dakvorm



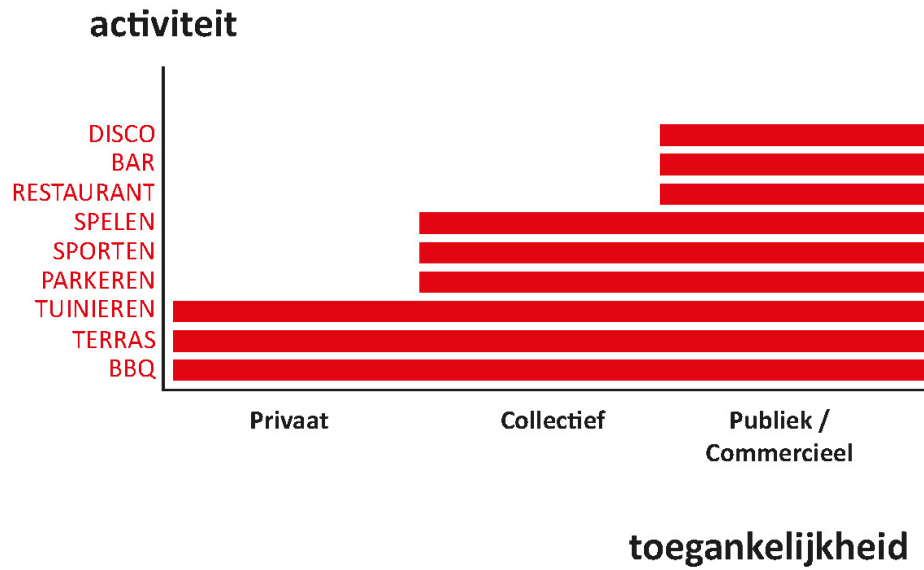


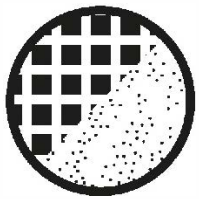
Grootte / oppervlak





Toegankelijkheid

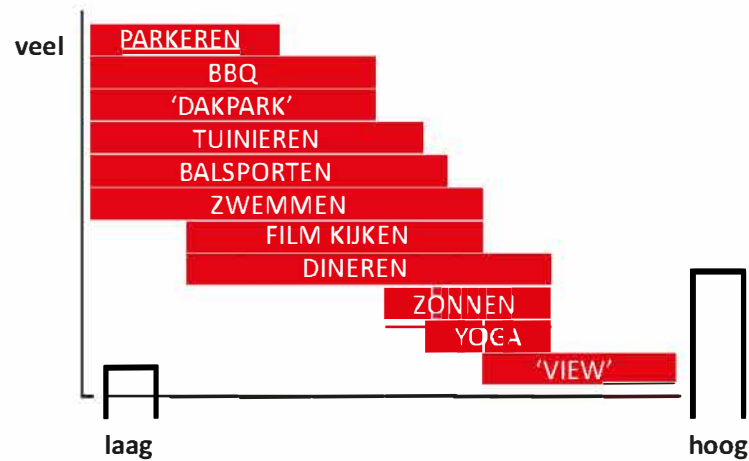




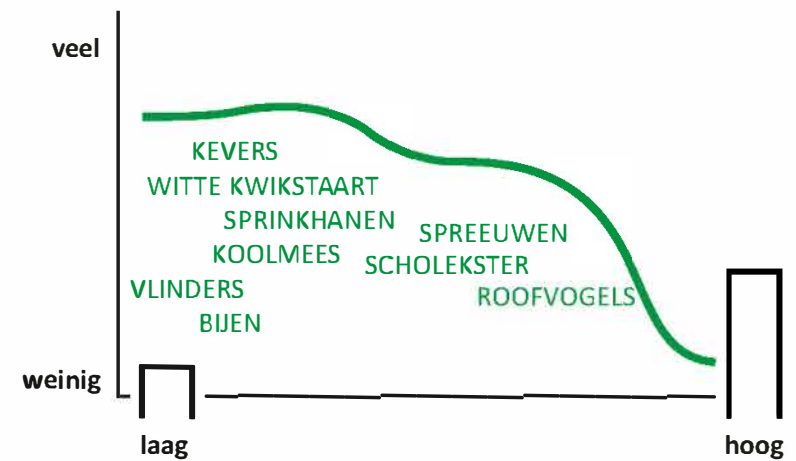
Context



● Menselijke activiteiten



● Habitat voor dieren



ELK TYPE STAD BIEDT ANDERE MOGELIJKHEDEN



HAVEN



NAOORLOGSE STAD



COMPACTE STAD



19E EEUWSE STADSWIJK

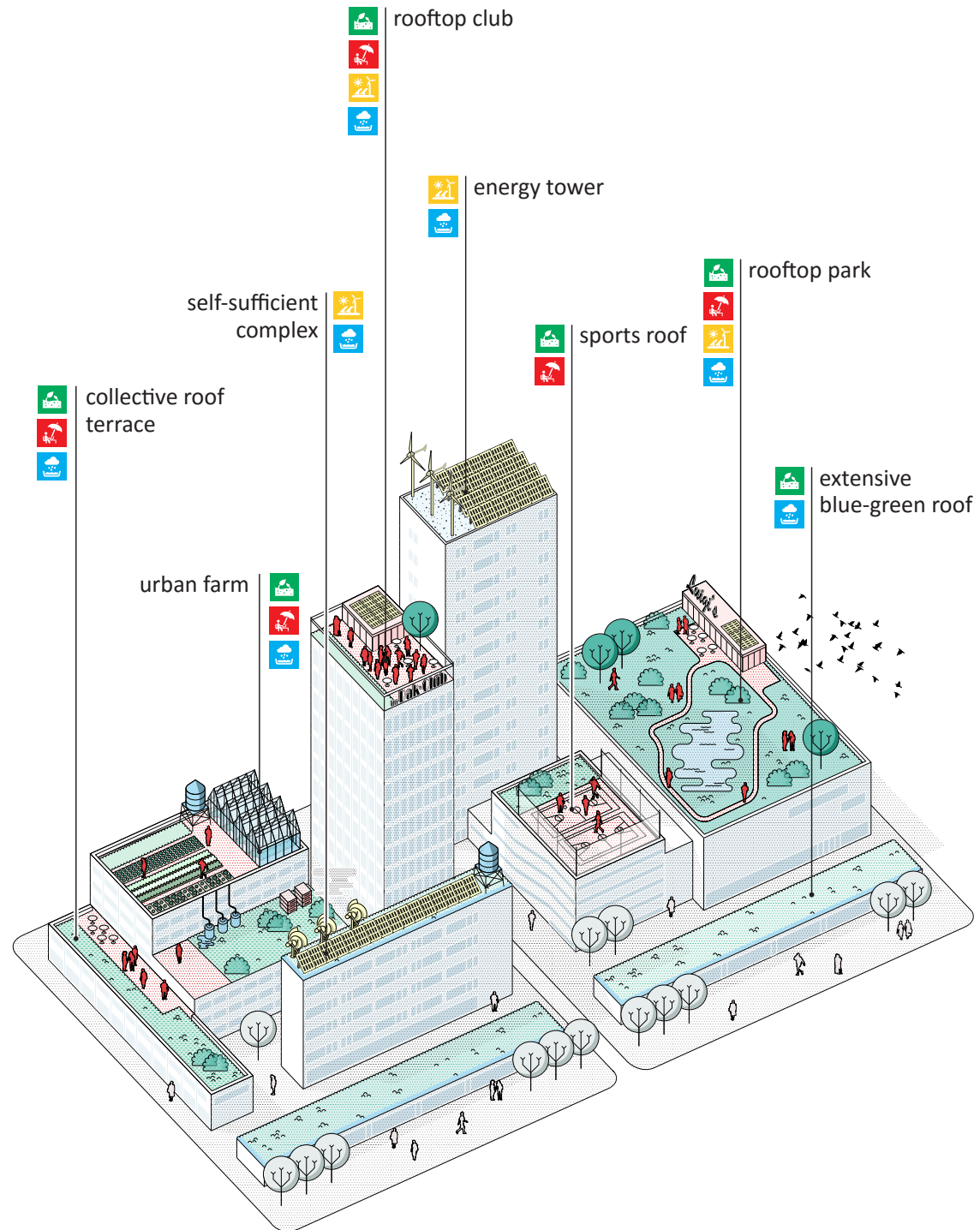


SUBURBAAN



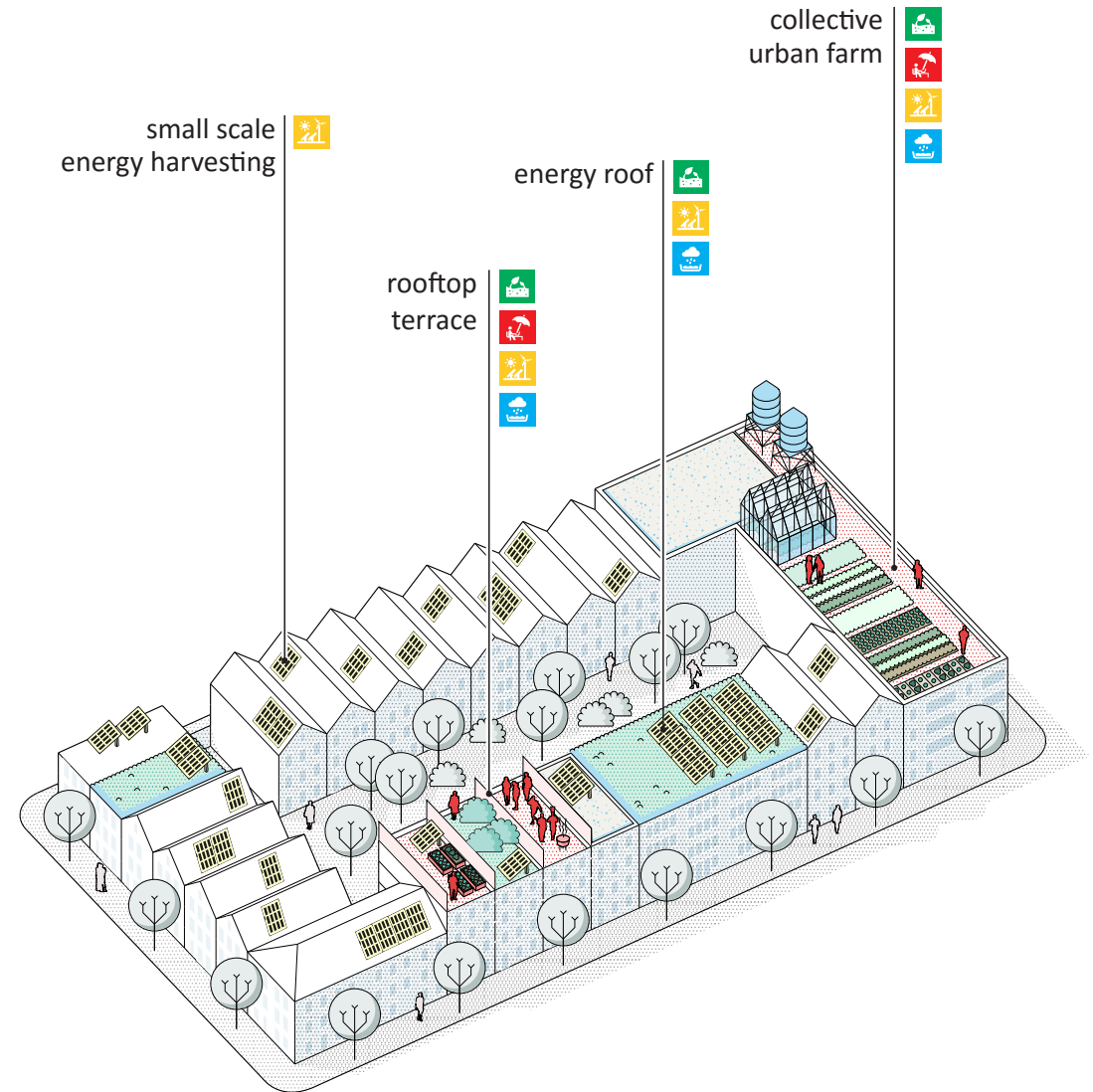
COMPACT STAD

Diversiteit en stedelijk leven



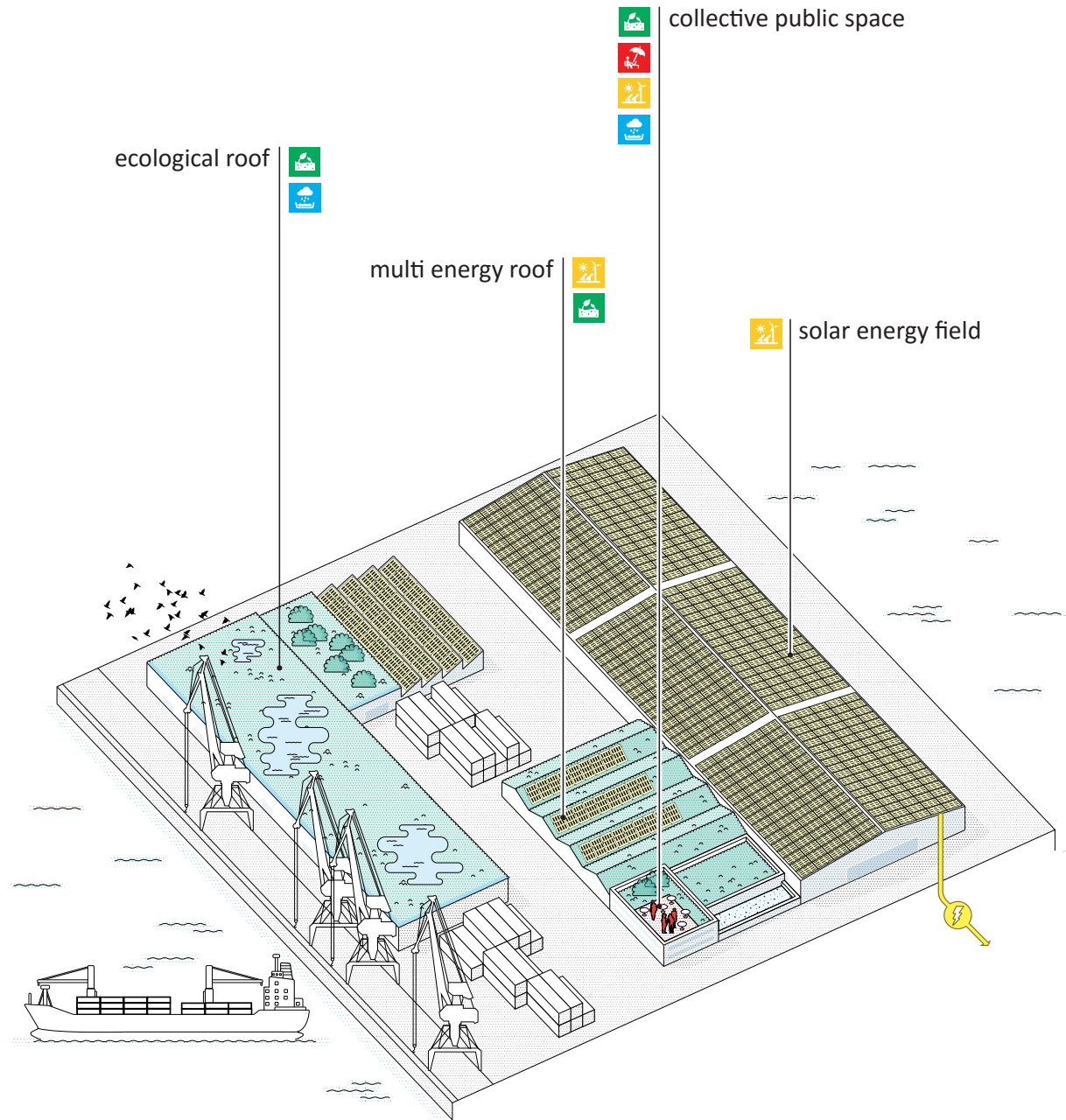
19E EEUWSE STADSWIJK

Mix van private en collectieve initiatieven



HAVEN

Efficientie en grote schaal





JURIDISCHE DAK CONSTRUCTIES

DAK-COOPERATIES/VVDE

DAK-LEASECONTRACTEN

DAK-BESTEMMINGSPANNEN

RECHT VAN OVERDAK

.....



Kashgar CH > bovenstad met recht van overdak



FINANCIËLE DAKARRANGEMENTEN

DAK-LEASECONTRACTEN

REVOLVING FUNDS

CO-FINANCIERING

CROWDFUNDING

VERKOOP AIRRIGHTS



Kansen voor de Bovenstad



Waar zijn we mee bezig?

