

#EURegionsWeek





**REGIONS
& CITIES**

European Week
Brussels 7-10 October 2019



gemeente
Schiedam

eurotowns*

Medium-sized cities as drivers for a greener Europe



[#EURegionsWeek](#)

[@eurotowns](#)

your host



Cor Lamers
Mayor of Schiedam

your moderator



Carol Thomas
CEMR



**REGIONS
& CITIES**

European Week
Brussels 7-10 October 2019

OUR KEYNOTE SPEAKERS

1. **Stephan Barthel** associate professor at University of Gävle
2. **Cor Lamers** mayor of Schiedam, president ENVE Committee COR, vice-president Eurotowns
3. **Martin Hückeler** manager for European Affairs and for Funding of Solingen
4. **Maria Mercedes Teixidor** head of Mobility department of Girona
5. **Iolanda Repullo** head of Business Support of Sabadell



**REGIONS
& CITIES**

European Week
Brussels 7-10 October 2019

Before we start: **YES** or **NO** ?

1.

2.

3.

Smart City Citizens

-Resilience of medium sized cities during global environmental change and the digital revolution



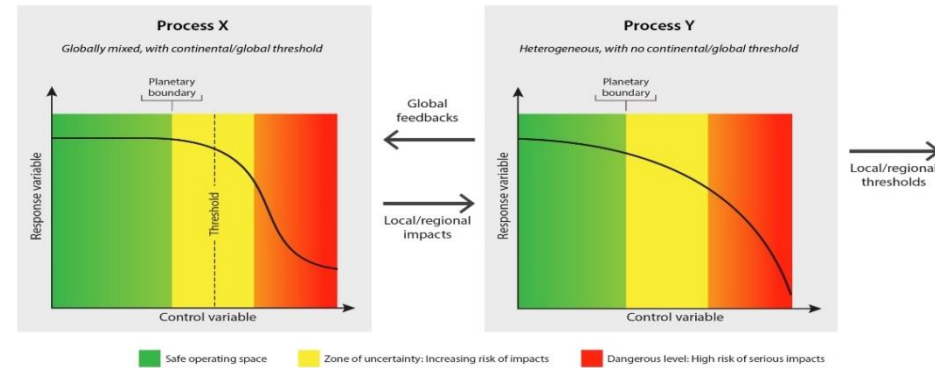
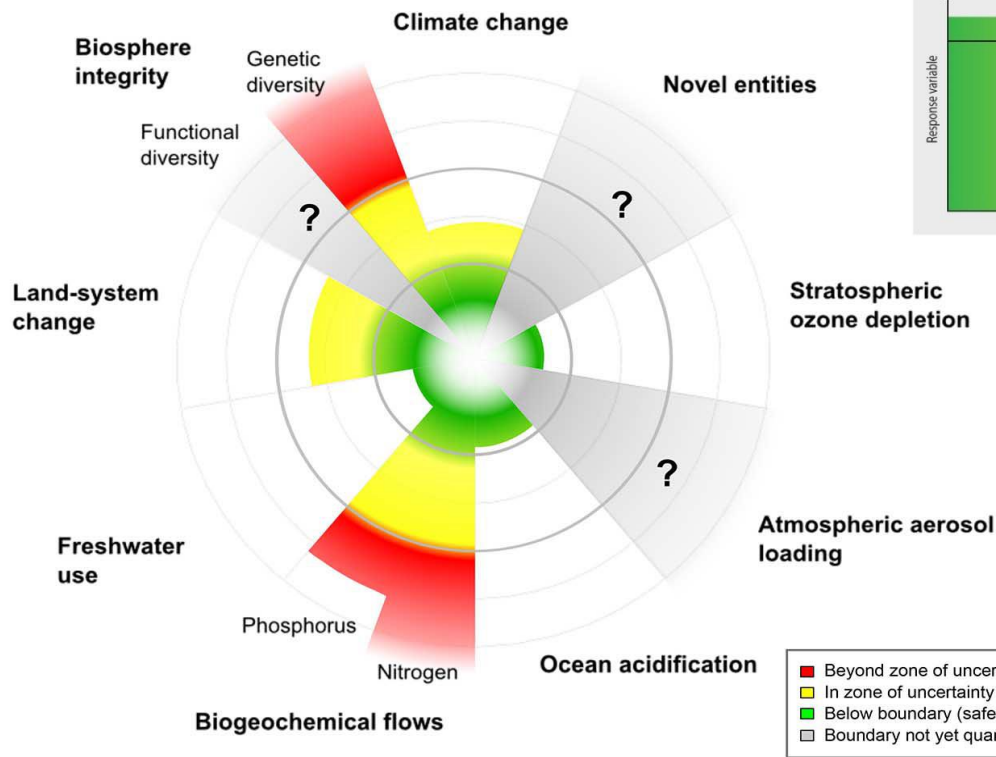
Associate Professor Stephan Barthel, University of Gävle, Sweden
(<https://hig.se/urbanstudio>)



REGIONS
& CITIES

European Week
Brussels 7-10 October 2019

Shifting Planetary Boundaries – Time ripe for adaptation

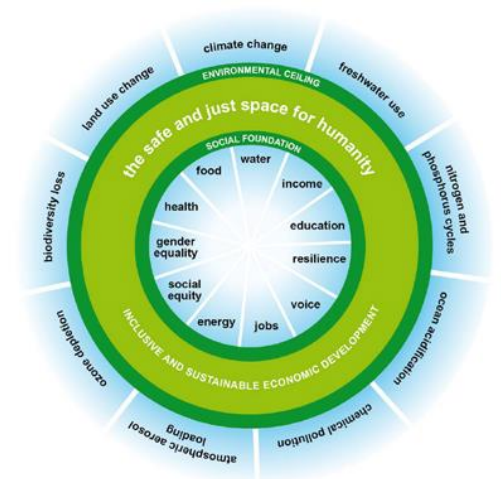


- Beyond zone of uncertainty (high risk)
- In zone of uncertainty (increasing risk)
- Below boundary (safe)
- Boundary not yet quantified



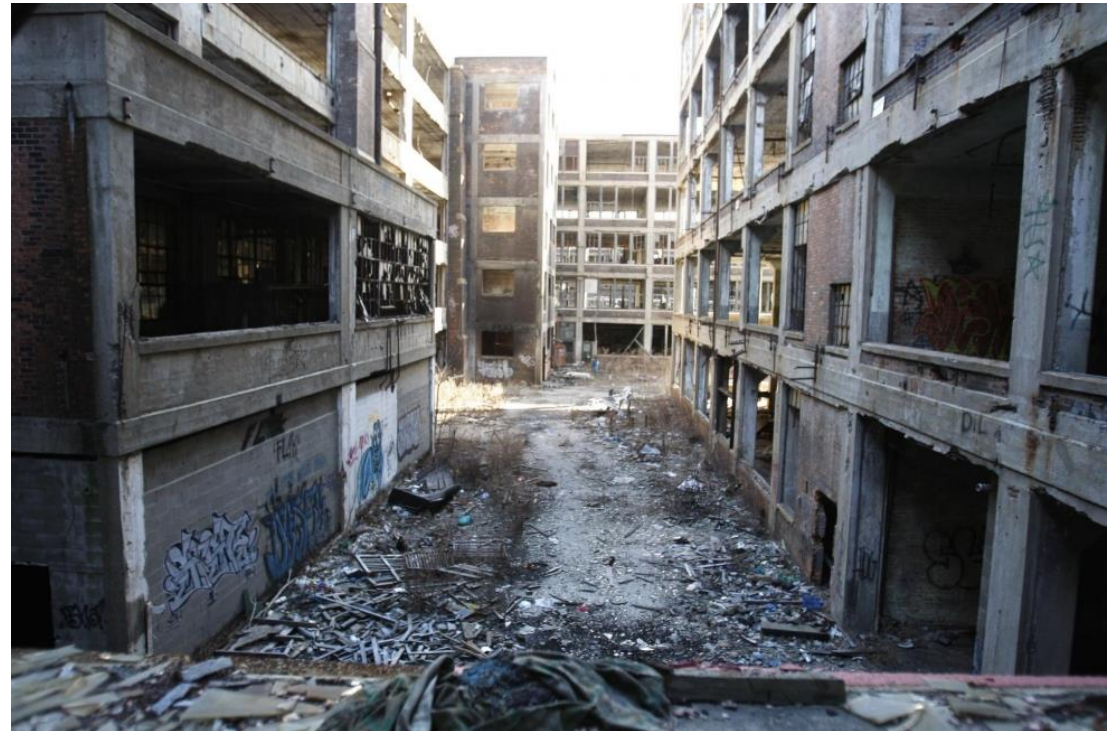
REGIONS
& CITIES

European Week
Brussels 7-10 October 2019



Urban Resilience

-The buffer capacity to absorb disturbance and continue develop



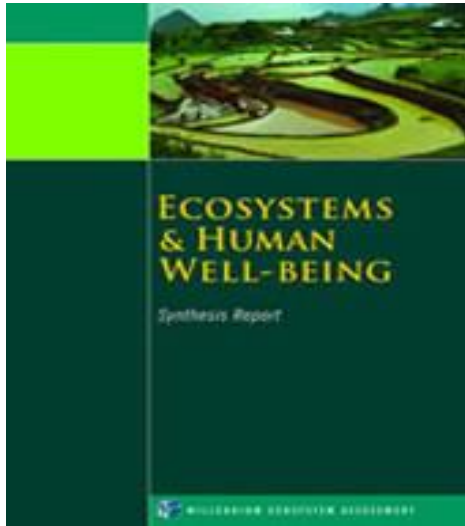


REGIONS
& CITIES

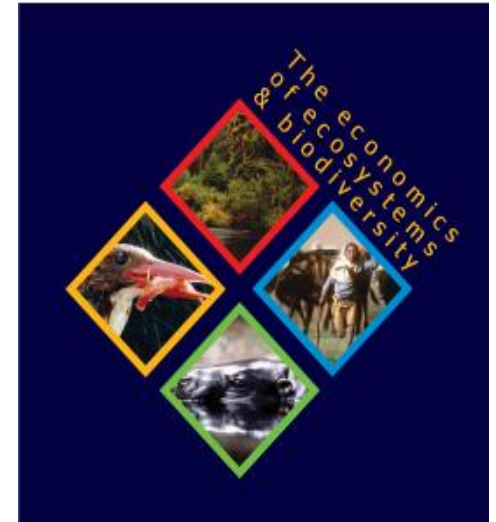
European Week
Brussels 7-10 October 2019

Urban Nature and Climate Resilience

-Ecosystem services



Grönområden bidrar till att rena luft och sänka temperaturen i staden.





REGIONS
& CITIES

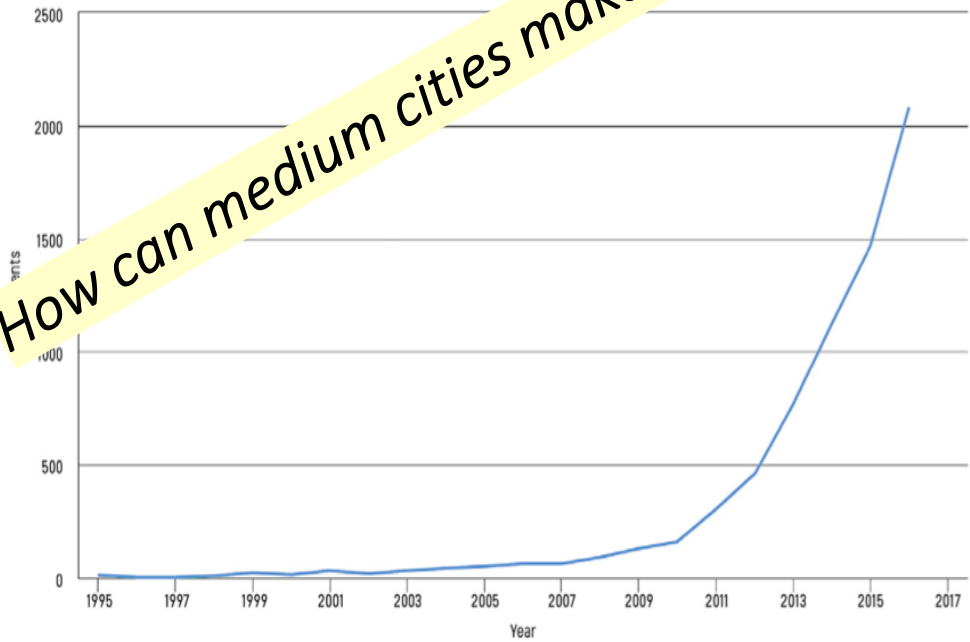
European Week
Brussels 7-10 October 2019

The Smart (digital) City Model

- c. 8000 scientific publications by 2018



How can medium cities make sense of it?



over the development of publications on "smart city"/"smart cities" as provided from the Scopus database. Source: modified from Scopus

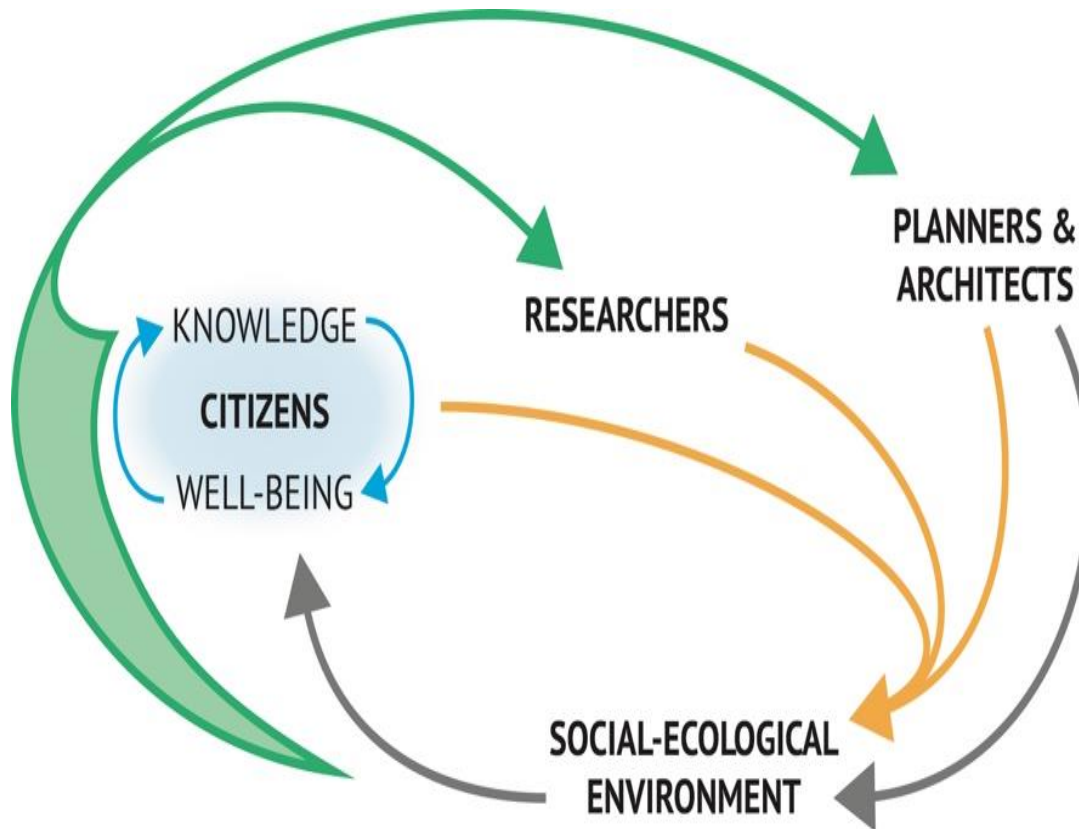


**REGIONS
& CITIES**

**European Week
Brussels 7-10 October 2019**

Civic participation in design

-Can digital tools be used to foster urban resilience?



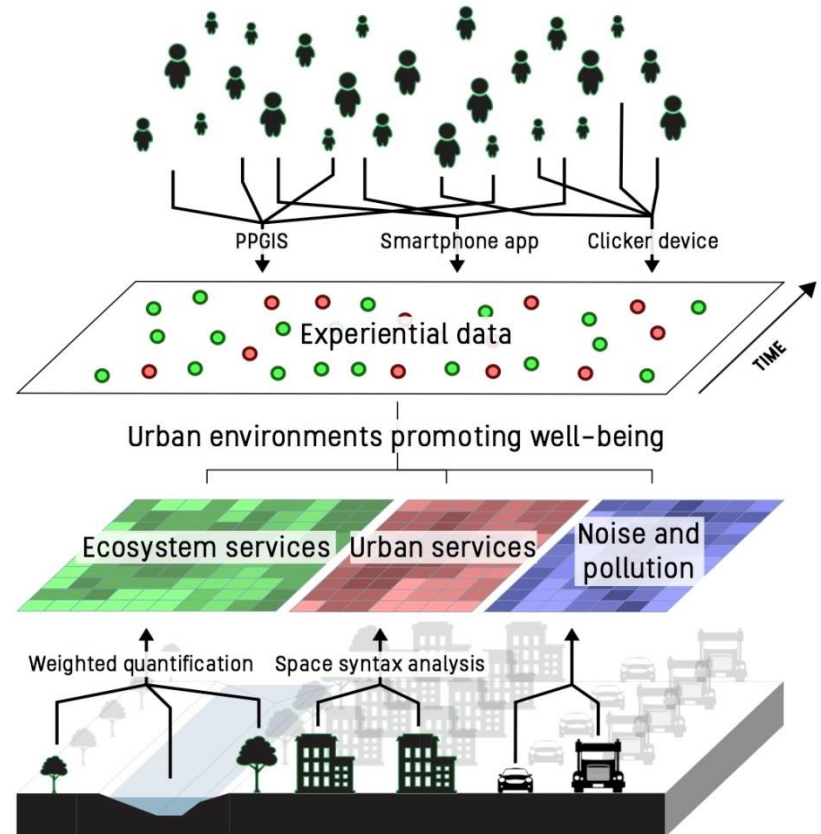


REGIONS
& CITIES

European Week
Brussels 7-10 October 2019

Navigating the Smart City Tsunami

-Innovation in digital methods for improving health



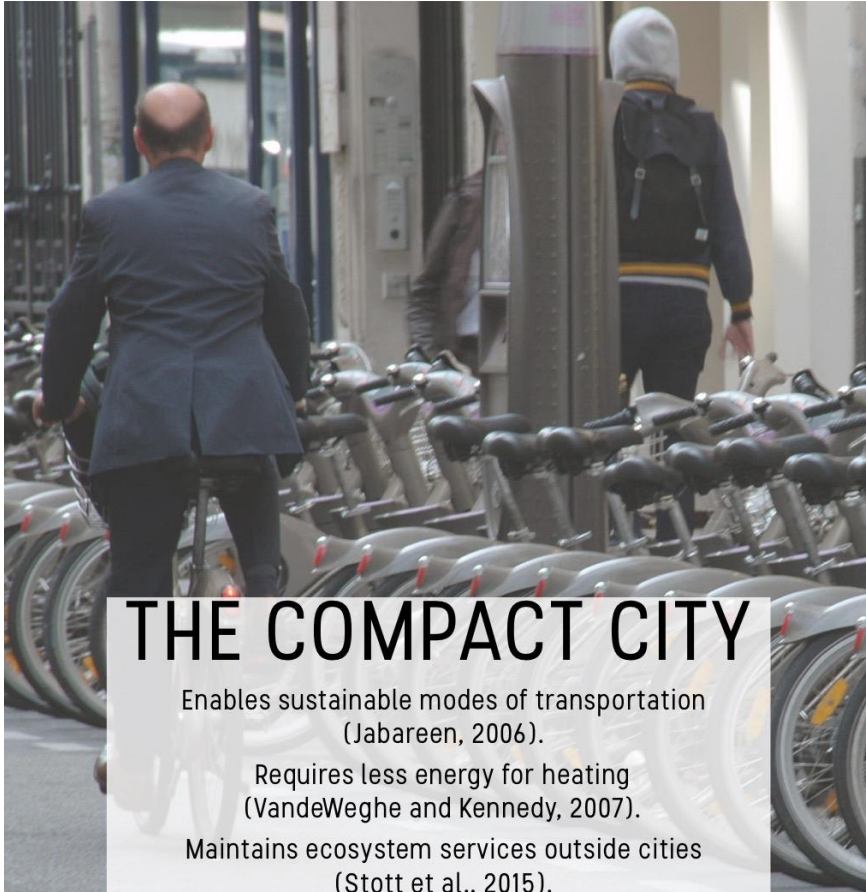


**REGIONS
& CITIES**

European Week
Brussels 7-10 October 2019

Conflicting Spatial Paradigm

-experiential knowledge may bridge the divide

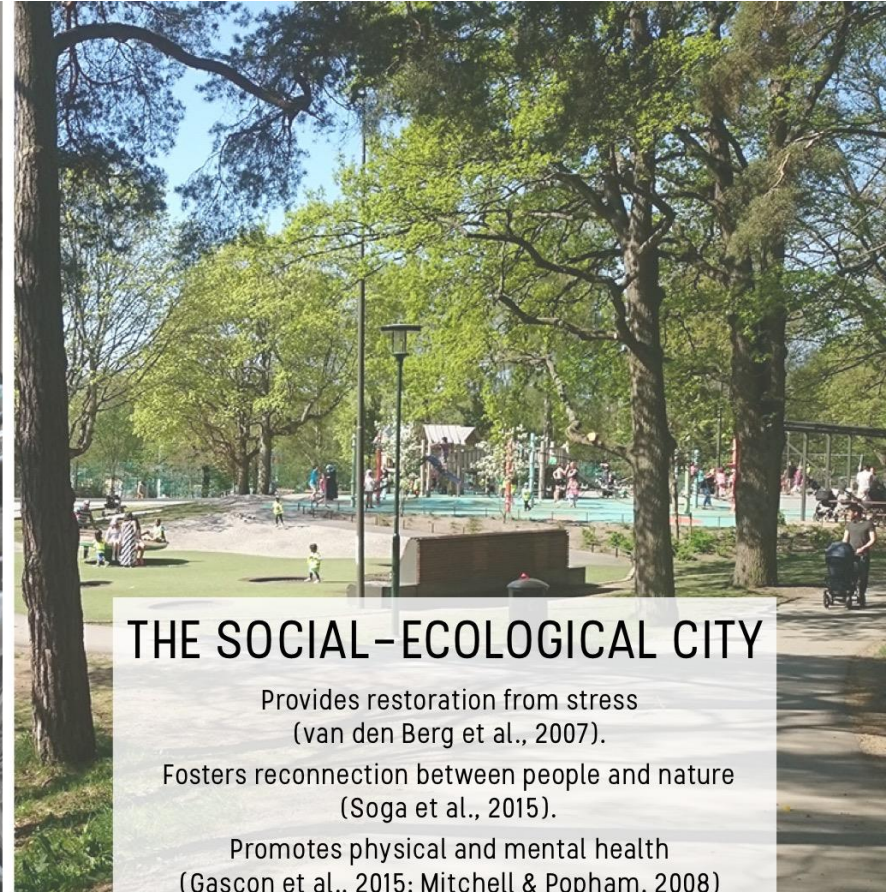


THE COMPACT CITY

Enables sustainable modes of transportation
(Jabareen, 2006).

Requires less energy for heating
(VandeWeghe and Kennedy, 2007).

Maintains ecosystem services outside cities
(Stott et al., 2015).



THE SOCIAL-ECOLOGICAL CITY

Provides restoration from stress
(van den Berg et al., 2007).

Fosters reconnection between people and nature
(Soga et al., 2015).

Promotes physical and mental health
(Gascon et al., 2015; Mitchell & Popham, 2008)



REGIONS
& CITIES

European Week
Brussels 7-10 October 2019

Landscape and Urban Planning 171 (2018) 7–17



ELSEVIER

Contents lists available at ScienceDirect

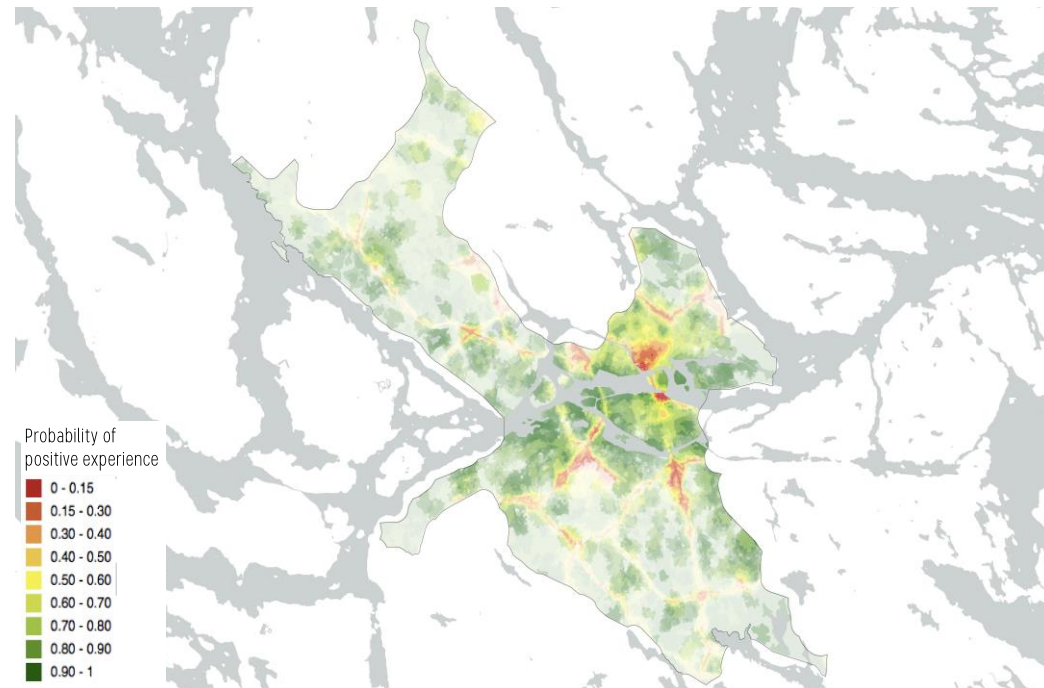
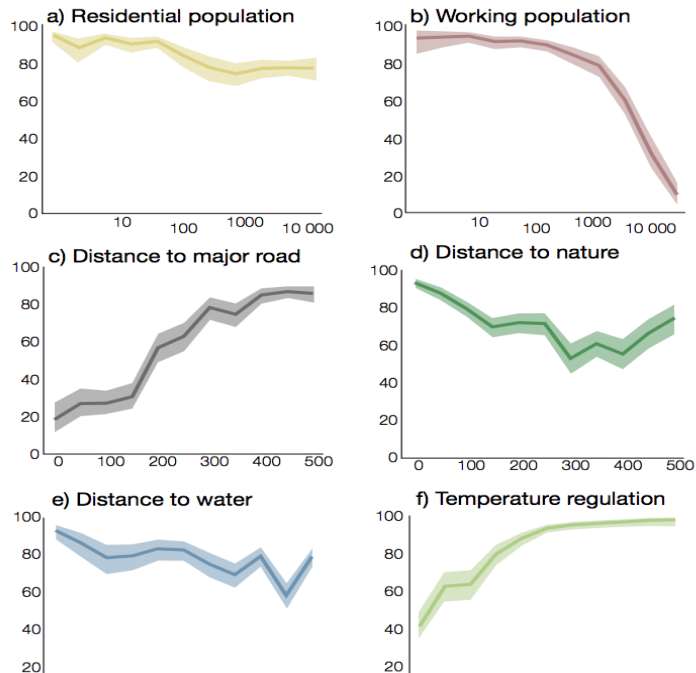
Landscape and Urban Planning

journal homepage: www.elsevier.com/locate/landurbplan

Research Paper

Impact of environment on people's everyday experiences in Stockholm

Karl Samuelsson^{a,*}, Matteo Giusti^b, Garry D. Peterson^b, Ann Legeby^c, S. Anders Brandt^a,
Stephan Barthel^{a,b}





**REGIONS
& CITIES**

European Week
Brussels 7-10 October 2019

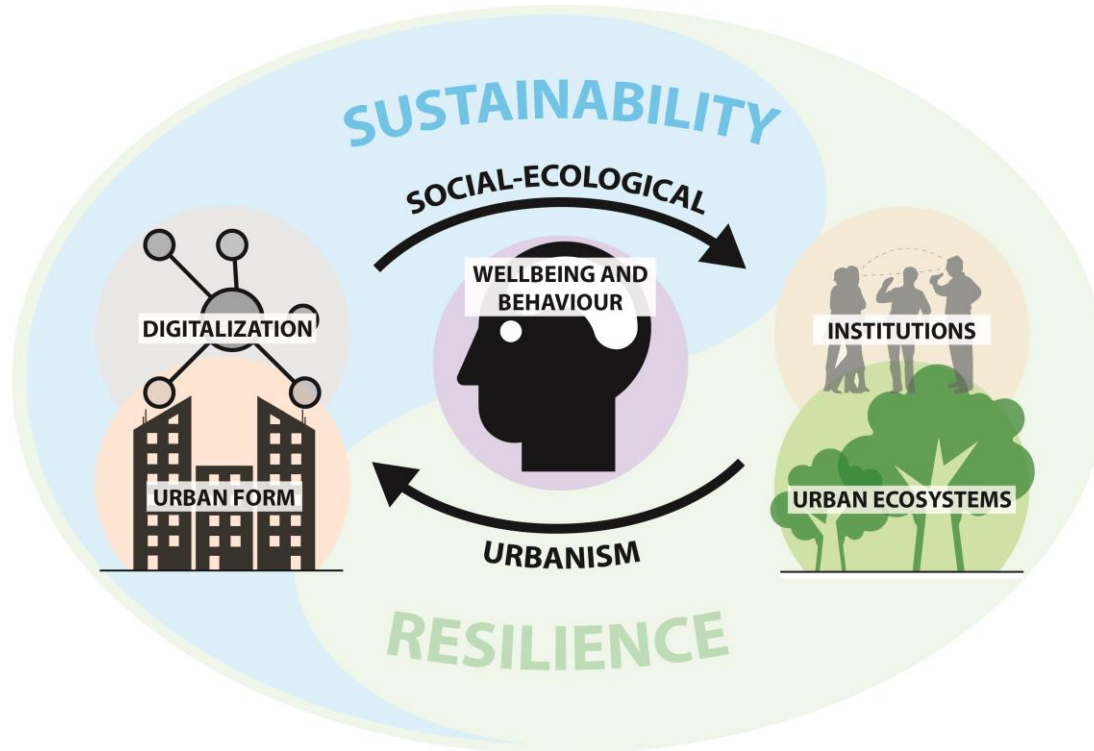
Resilient City-Scapes centered on Human Wellbeing -Advantage of medium sized cities

- Healthcare costs are spiralling upwards
 - 95% of healthcare costs are in treating disease
 - Only 5% are in preventative healthcare!
 - Can we design for long term positive impact of social-ecological landscape on wellbeing?



**REGIONS
& CITIES**

European Week
Brussels 7-10 October 2019



<https://hig.se/urbanstudio>

Thanks!



**REGIONS
& CITIES**

**European Week
Brussels 7-10 October 2019**



**gemeente
Schiedam**

eurotowns*



EU Environment Action Programme and the local level

Cor Lamers, Mayor of Schiedam, president ENVE Committee CoR



**REGIONS
& CITIES**

European Week
Brussels 7-10 October 2019

The start of the European adventure

A personal story: how to achieve of air quality

- Mayor of Houten
- People move from Utrecht to Houten with the illusion to find better air quality

Air quality can only be improved:

- with legislation and source based policies on the European level
- with a multilevel and integrated approach



**REGIONS
& CITIES**

European Week
Brussels 7-10 October 2019

Active on European level



**European Committee
of the Regions**



Local & Regional Europe
L'Europe locale & régionale

eurotowns 



**REGIONS
& CITIES**

European Week
Brussels 7-10 October 2019

EU Environmental Action Programs in a nutshell

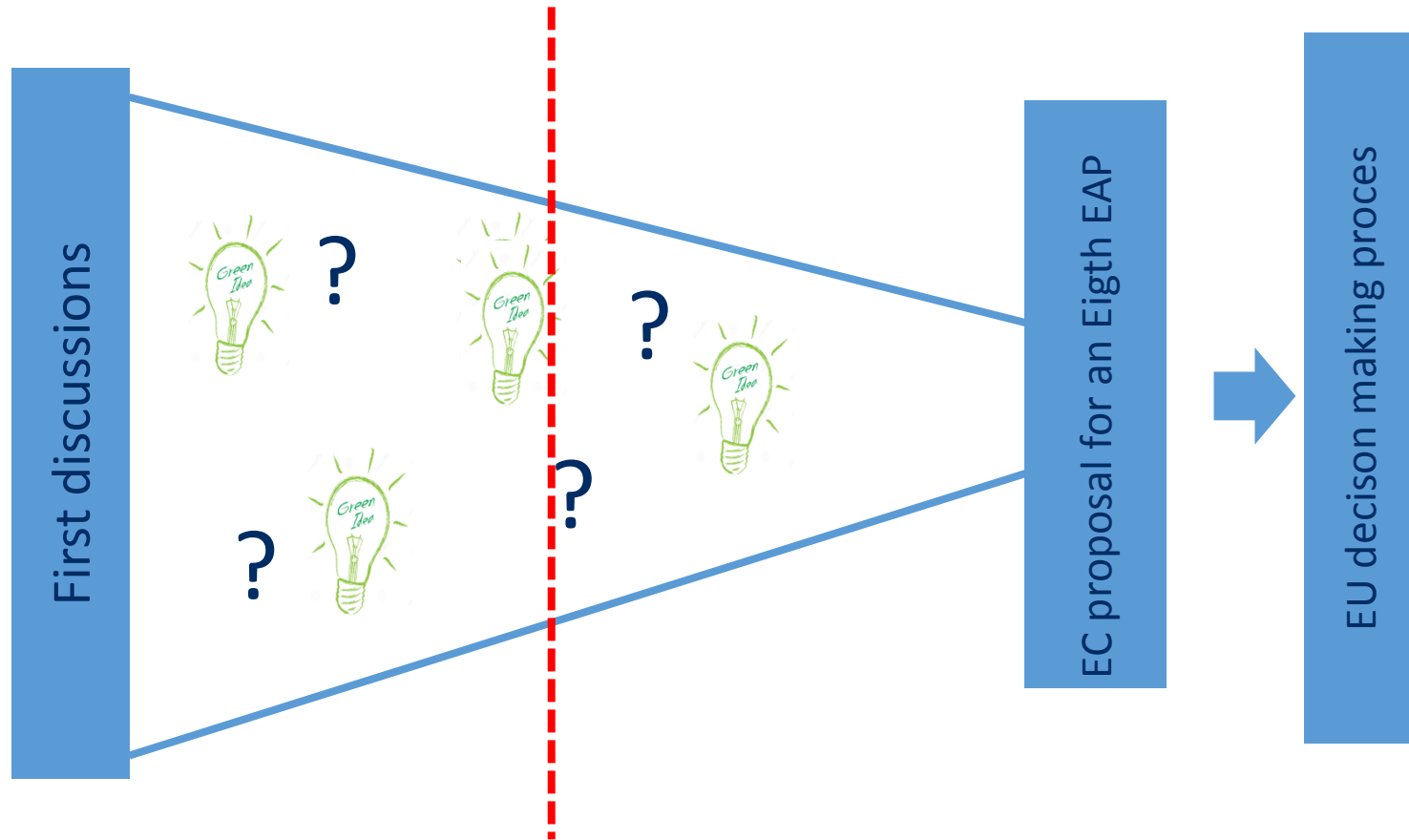
- Since the mid-seventies EU environmental policy has been guided by action programs
- The EAPs define priority objectives to be achieved within a period of years.
- The current and seventh EAP is being evaluated.
- The European Commission currently works on the 8th EAP



**REGIONS
& CITIES**

European Week
Brussels 7-10 October 2019

Where are we in the process





**REGIONS
& CITIES**

European Week
Brussels 7-10 October 2019

It is not helping if we keep walking in the same direction,
perhaps we should find another route!





**REGIONS
& CITIES**

European Week
Brussels 7-10 October 2019

New scope

- From problems (states and impacts)
- To reasons (drivers and pressures)
- And solutions (responses)
- This requires a different line of thinking





**REGIONS
& CITIES**

European Week
Brussels 7-10 October 2019

The 8th EAP should be based on a practical integrated approach:

- To support implementation
- To create space for further innovation
- To support transition policies
- To stimulate and inspire cities and regions to take further steps

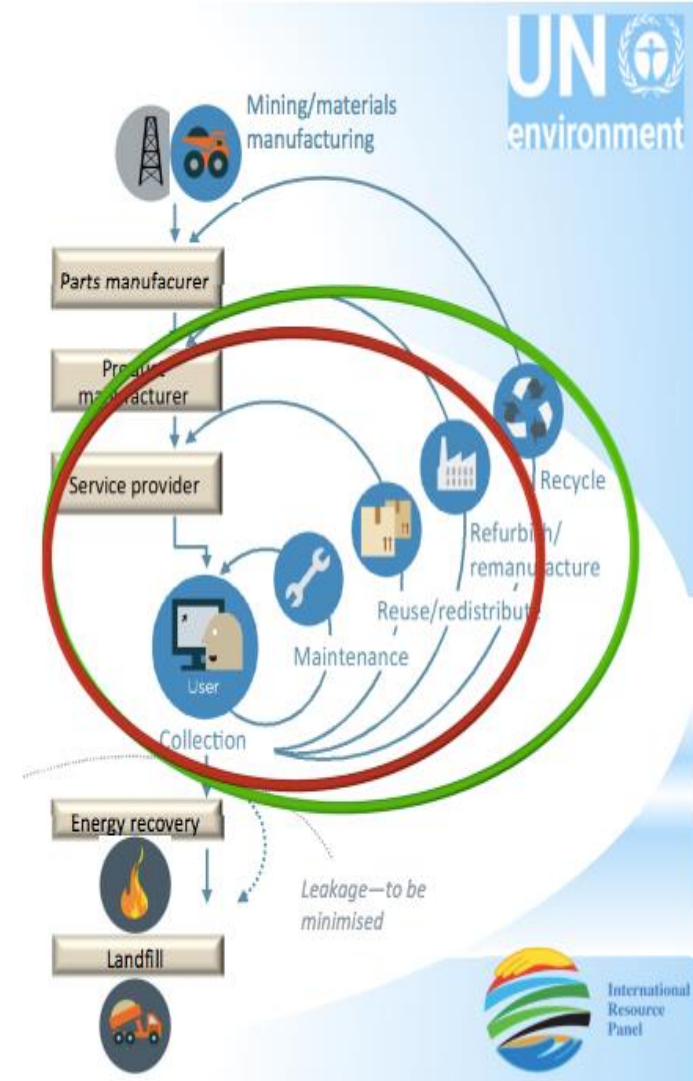


REGIONS
& CITIES

European Week
Brussels 7-10 October 2019

Transition policies

- Circular economy
- Energy transition
- Mobility transition
- Food transition
- Transitions in living area's





**REGIONS
& CITIES**

European Week
Brussels 7-10 October 2019

Schiedam – an example of a medium-sized city





**REGIONS
& CITIES**

**European Week
Brussels 7-10 October 2019**

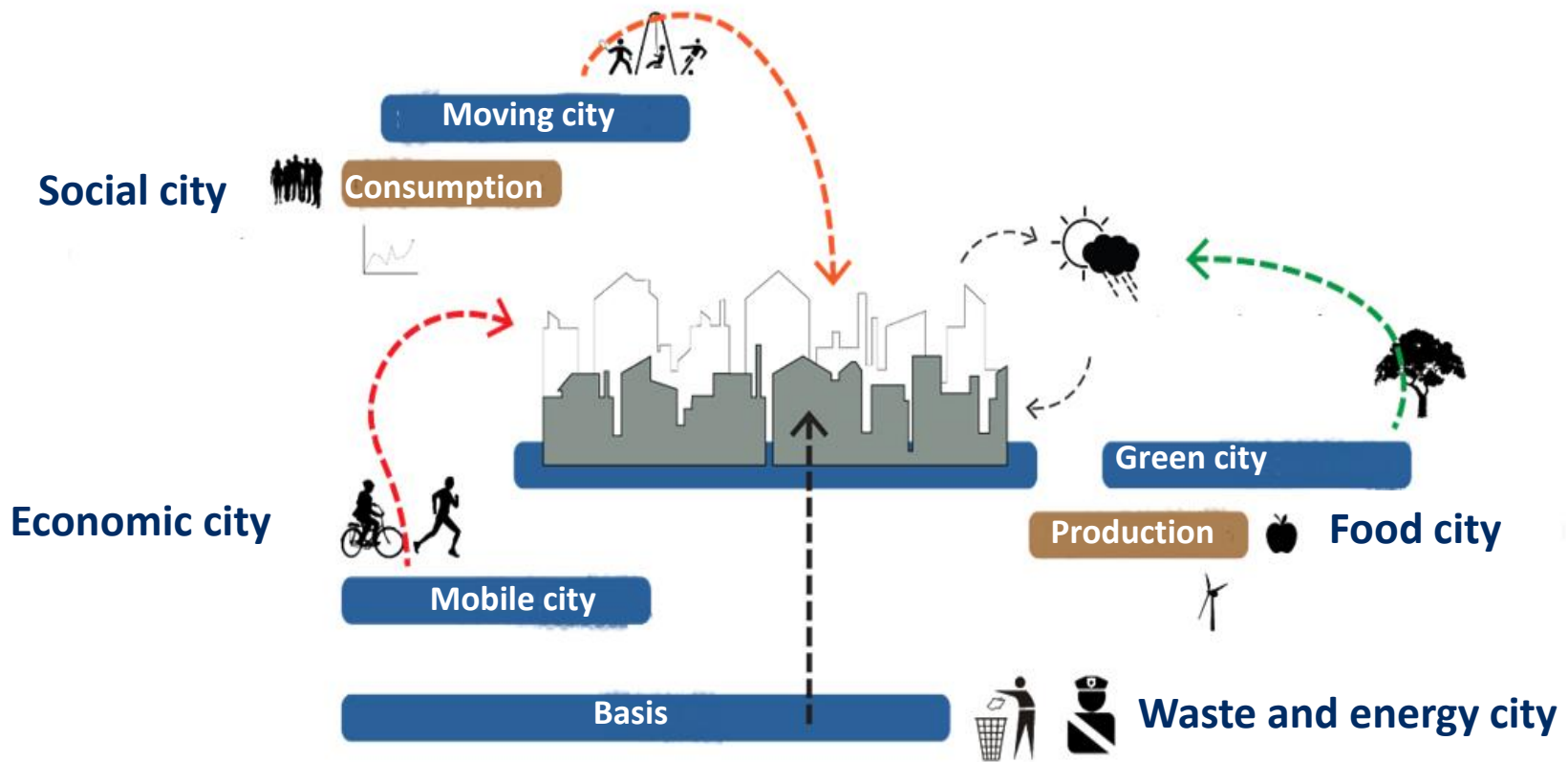




**REGIONS
& CITIES**

European Week
Brussels 7-10 October 2019

Healthy urban living approach





**REGIONS
& CITIES**

**European Week
Brussels 7-10 October 2019**

**The central theme of the Eighth EAP should be healthy
living for all (people, nature and planet)**

It should result into

**healthy and prosperous urban areas
a healthy vibrant countryside
attractive and safe coastal and mountainous areas**

THANK YOU!



**REGIONS
& CITIES**

**European Week
Brussels 7-10 October 2019**



**gemeente
Schiedam**

eurotowns*

Medium sized cities as drivers for a greener Europe

The Sustainability Strategy in Solingen

Martin Hückeler



Solingen



**REGIONS
& CITIES**

European Week
Brussels 7-10 October 2019

Overview of the structure:

- Short introduction of Solingen
- Sustainable Strategy Solingen
 - Process
 - Work structure
 - 6 prioritised topics
 - Example „Global responsibility ..“
- Sustainability assessment
- Conclusions
- Outlook on concrete „green“ measures





Solingen

- Autonomous city next to Cologne and Düsseldorf in North-Rhine Westphalia
- 162.000 inhabitants from about 130 nations
- Main industries: blade and cutlery manufacturing („City of blades“), automotive supply industry and engineering, galvanic and metal working industry
- Many years of experience in sustainability projects, campaigns and concepts

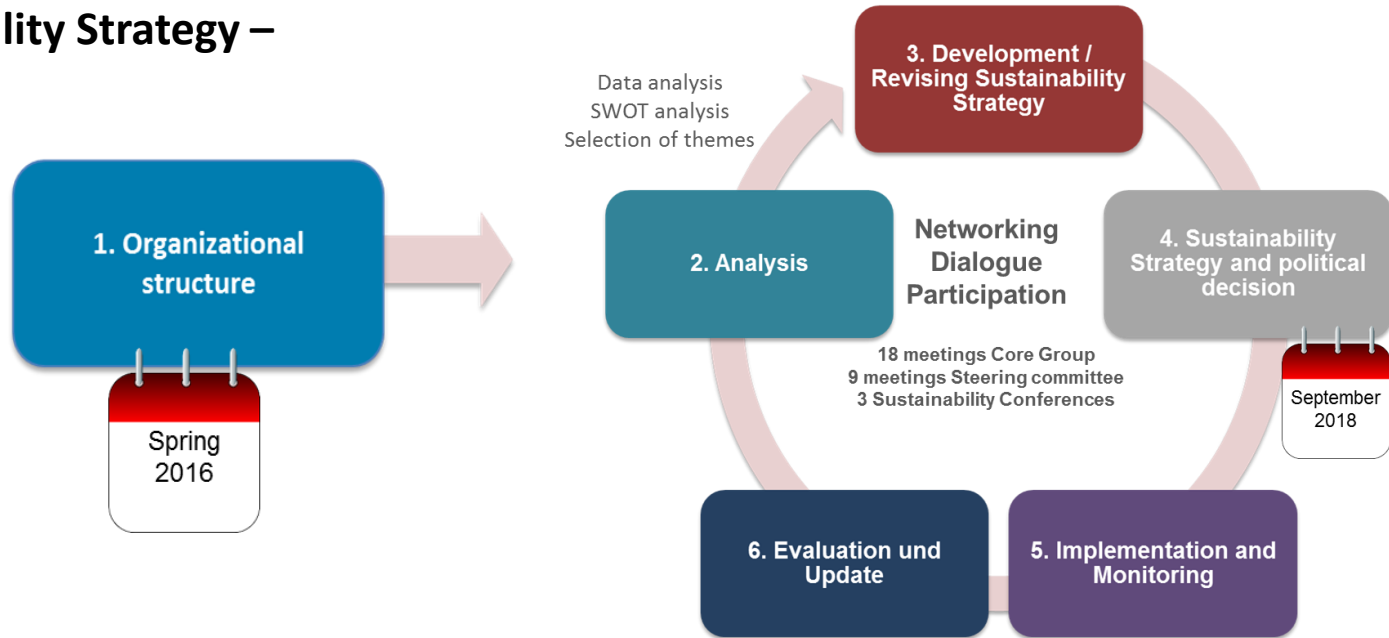




**REGIONS
& CITIES**

European Week
Brussels 7-10 October 2019

Sustainability Strategy – The Process



SWOT analyses and indicators as a basis for 6 prioritised topics:



Social
Participation



Natural
resources &
environment



Climate &
Energy



Mobility



Jobs &
economy



Global
responsibility
& One World

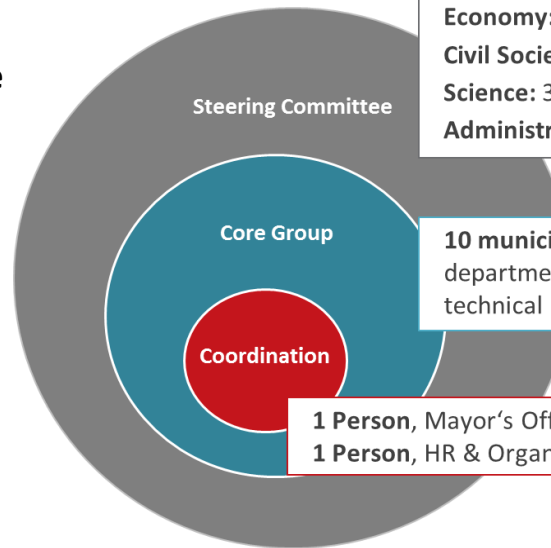


**REGIONS
& CITIES**

**European Week
Brussels 7-10 October 2019**

Sustainability Strategy – Work and organisational structure

Mutual cooperation between Core Group and Steering Committee based on varied dialogue processes and sustainability conferences



City council: 5 chairpersons
Economy: 6 representatives
Civil Society: 10 representatives
Science: 3 representatives
Administration: members of the core group

10 municipal administrators (+ deputies) representing all departments as well as 3 subsidiaries (municipal utilities, technical operations, hospital)

1 Person, Mayor's Office (Sustainable Development)
1 Person, HR & Organisation

Sustainability Conferences:

- a crucial approach in the process
- participation of several hundred citizens in 3 conferences
- to be involved in
 - definition of targets
 - definition of projects
 - definition of action plan and next steps



Solinger sammeln Umweltschutz-Ideen

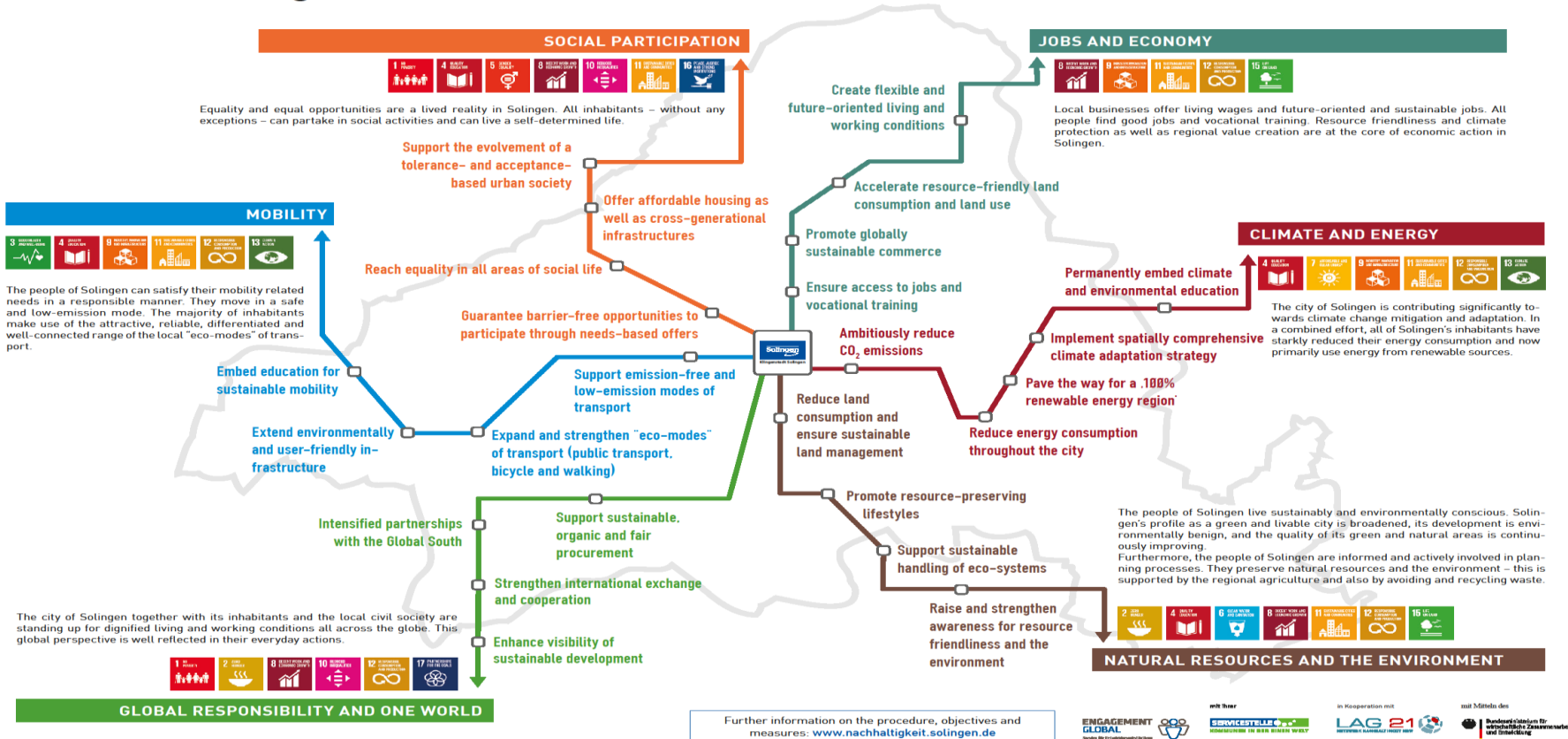




REGIONS & CITIES

European Week
Brussels 7-10 October 2019

Sustainability Strategy of Solingen Guidelines and goals





REGIONS
& CITIES

European Week
Brussels 7-10 October 2019

Target levels of
the strategy

general



specific /
concrete

Global responsibility and One World - Example

Thematic guideline: The city of Solingen together with all of its citizens and the local civil society are standing up for dignified living and working conditions all across the globe. This global perspective is well reflected in their everyday actions.

1. Strategic target: Support sustainable, organic and fair procurement

1.1 Operational target: Expand fair, ecological and regional procurement in administration and pilot companies

In 2023, the city of Solingen is procuring all products from the Global South based on Fair Trade and organic criteria (if available).

In 2023, the city administration covers all of its food demand from environmentally benign and regional sources (if available).

Until 2023 at least 30 pilot companies have started to implement organic and fair procurement (minimum 5 organic and fair products from the Global South as well as 5 organic products from regional sources).

1.2 Operational target: Increase supply and demand for eco-fair products in the retail and catering trade

By 2023, 70% of all grocery stores in Solingen offer a fair trade, organic certified or regional assortment of goods.

In 2023, 20 restaurants will be using both regional and local food as well as fairly traded and certified organic products.

The city of Solingen will be regularly certified as Fairtrade Town from 2018. Together with the retail trade, hotels and restaurants as well as other companies (production / service) it is expanding the program to promote eco-fair consumption.

Activities / projects (samples):

- Campaign for an incremental transformation towards sustainable public procurement
- Strategy „Sustainable Procurement in Solingen“
- City-wide action plan „Organic-Fair-Shopping & Retail“



Sustainability Assessment:

A	B	C	D	E	F	G
Globale Verantwortung und Eine Welt						
Strategische Ziele		Operative Ziele			bitte ein "x" eintragen	
1 Nachhaltige, öko-faire Beschaffung fördern		1.1 Faire, ökologische und regionale Beschaffung in Verwaltung und Pilotunternehmen ausbauen				
		1.2 Angebot und Nachfrage für öko-faire Produkte bei Einzelhandel und Gastronomie erhöhen				
		Weitere Auswirkungen auf das Erreichen des strategischen Ziels 1, die über 1.1 bis 1.2 hinaus gehen				
2 Partnerschaften mit Ländern des Globalen Südens festigen		2.1 Kommunale Entwicklungspartnerschaft mit den Partnerkommunen voranbringen				
		2.2 Engagement von Unternehmen für entwicklungspolitische Zusammenarbeit nutzen				
		Weitere Auswirkungen auf das Erreichen des strategischen Ziels 2, die über 2.1 bis 2.2 hinaus gehen				
3 Internationalen Austausch und Zusammenarbeit stärken		3.1 Lokale und internationale Zusammenarbeit und Netzwerke stärken				
		3.2 Zivilgesellschaftliche internationale Projektarbeit insbesondere junger Menschen ausbauen				
		Weitere Auswirkungen auf das Erreichen des strategischen Ziels 3, die über 3.1 bis 3.2 hinaus gehen				
4 Nachhaltige Entwicklung erkennbar und erlebbar machen		4.1 Global verantwortliches Handeln in Kindergärten, Schulen, bei Ausbildung und Personalentwicklung verankern				
		4.2 Experimentier- und Lernorte für Nachhaltigkeit und Lebensqualität schaffen				
		Weitere Auswirkungen auf das Erreichen des strategischen Ziels 4, die über 4.1 bis 4.2 hinaus gehen				

Weiteres Vorgehen

Alle ausgewählten Ziele werden **automatisch in die Tabelle „Zusammenfassung“** übertragen.

Bitte gehen Sie auf den **Tabellenreiter“ „Zusammenfassung“**.

1. Dort gehen Sie zunächst auf den gelben Schalter „Zusammenfassen“. Damit wird die Gesamttabelle auf die ausgewählten Ziele gekürzt.

2. Mit dem grauen bzw. orangenen Schalter wählen sie aus, ob die Tabelle in Graustufen oder in Farbe in die Beschluss-



Sustainability Assessment:

How to use it:

Administrative short check for sustainability assessment for any resolution for the City Council or its Committees

Note on application: All table columns contain the long version of the targets in the background. A **pop-up window** opens **when you move your mouse to the top right corner**.

The impact assessment relates to the long version of the objectives.

Resolution No. ___Year Number___Short Name:

Global responsibility and One World - Example																
Strategic target				Operational target												
														promote	inhibit	
1	Support sustainable, organic and fair procurement			1.1	Expand fair, ecological and regional procurement in administration and pilot companies											
				1.2	Increase supply and demand for eco-fair products in the retail and catering trade											

Operational target 1.2:
By 2023, 70% of all grocery stores in Solingen offer a fair trade, organic certified or regional assortment of goods.

In 2023, 20 restaurants will be using both regional and local food as well as fairly traded and certified organic products.

The city of Solingen will be regularly certified as Fairtrade Town from 2018. Together with the retail trade, hotels and restaurants as well as other companies (production / service) it is expanding the program to promote eco-fair consumption.

promote
inhibit

												X											
												X											
1.1	1.2	A1	2.1	2.2	A2	3.1	3.2	A3	4.1	4.2	A4	1.1	1.2	A1	2.1	2.2	A2	3.1	3.2	A3	4.1	4.2	A4



**REGIONS
& CITIES**

European Week
Brussels 7-10 October 2019

Sustainability Assessment:

What we want to achieve:

- the results of the short check are presented in the draft resolution in the newly introduced subsection "6. Impact on the objectives of the Sustainability Strategy"
 - In a tabular overview, the affected targets are displayed there (with short titles)
 - An overall assessment follows as a short summary text

- short check to derive an overall assessment whether the content of this proposal / resolution is based on the goals of the sustainability strategy impact.

- Decision reasons for pro and contra aspects should be comprehensible

- Make sure that the SDGs are already considered at the beginning of the considerations





REGIONS
& CITIES

European Week
Brussels 7-10 October 2019

Conclusions:

- Translating the SDGs into municipal actions leads up to significant organizational and content-regarded development of the Sustainability Strategy in Solingen
- Guidelines and targets show a clear picture of a locally and globally sustainable Solingen
- Ambitious and smart operational goals as the main levers of further actions
- Action plan links existing activities with future development plans
- Organizational process allows extensive involvement / participation of numerous actors from civil society, economy and science
- The City Council has recognized the significance of the strategy and extensively discussed it in its body and adopted it with small modifications
- Regardless of political changes in the City Council, the administration now has an authorized working basis until 2030



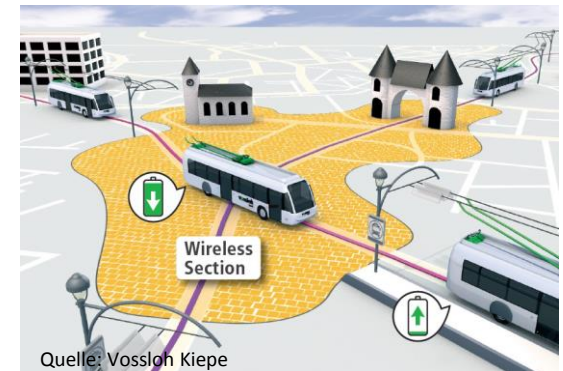


**REGIONS
& CITIES**

**European Week
Brussels 7-10 October 2019**

- **Outlook on concrete „green“ measures:**

- Solingen has become Fairtrade-Town
- Operational Mobility Management for the City of Solingen
- The battery trolleybus for even more CO2 neutrality
 - in public transport
- Expansion and intelligent control of the modal split
 - through digitization
- Restoration of natural habitats
- Measures against forest dying
-
-
- EUROTOWNS new Task Team “Global Goals”



- **Thank you for your attention!**

- Contact:
 - City of Solingen
- Martin Hückeler – Manager for European Affairs and for Funding
 - Walter-Scheel-Platz 1, 42651 Solingen



**REGIONS
& CITIES**

European Week
Brussels 7-10 October 2019

School Chance

SCHOOL mobility CHALLENGE in regional poliCiEs

Maria Mercedes Texeidor - Girona



**School
Chance**
Interreg Europe



European Union
European Regional
Development Fund



REGIONS & CITIES

European Week
Brussels 7-10 October 2019

School Chance
Interreg Europe

European Union
European Regional
Development Fund



Incorporate children's independent mobility in regional and cities policies

School traffic

15%

of the total traffic at urban level traffic

Kids driven to school

30-60 %

Depending on country and school level

Schools have a important role in reducing emissions

Changing mobility behaviour of school children



Today's emissions



Next generations mind-set towards sustainability





REGIONS & CITIES

European Week
Brussels 7-10 October 2019

School
Chance

Interreg Europe



European Union
European Regional
Development Fund



Incorporate children's independent mobility in regional and cities policies **around 4 policy themes**

Education and awareness raising



Communication



Infrastructure



Organisation and information





**REGIONS
& CITIES**

European Week
Brussels 7-10 October 2019



Why?



REGIONS
& CITIES

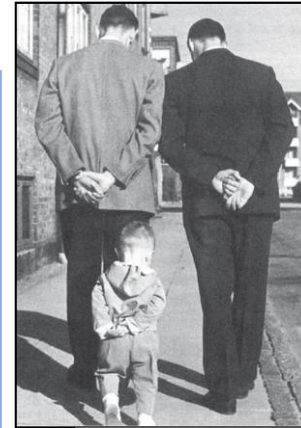
European Week
Brussels 7-10 October 2019

Because ...

1. Creation of habit: Repetition of acts



Unconscious
Forced
Wilfully
.....



2. Meaning: Which purpose has that habit?



Family

School

City

Others

Regional & cities policies



**REGIONS
& CITIES**

European Week
Brussels 7-10 October 2019



www.interregeurope.eu/schoolchance



facebook.com/schoolchance



twitter.com/schoolchance



School Chance

Interreg Europe



European Union
European Regional
Development Fund

Socis del projecte

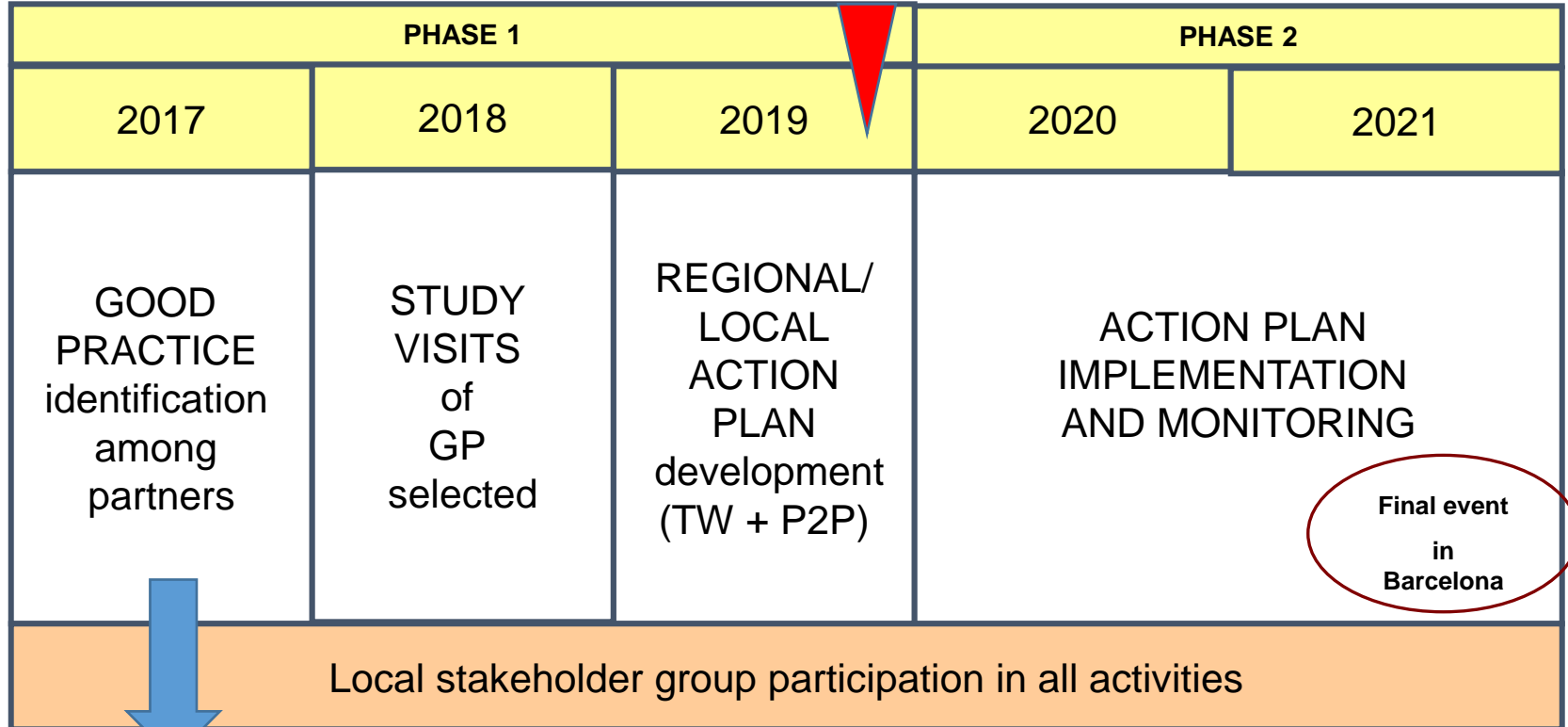
- Ajuntament de Girona (ES) – *soci líder*
- Municipality of Reggio Emilia (IT)
- Austrian Mobility Research FGM-AMOR, Graz (AT)
- Generalitat de Catalunya (ES)
- Ciutat d'Utrecht (NL)
- Ajuntament de Gävle (SE)
- Ciutat de Gdansk (PL)
- Brasov Metropolitan Agency for Sustainable Development (RO)

7 partners from 8 countries



**REGIONS
& CITIES**

European Week
Brussels 7-10 October 2019



Policy Learning Platform

Regions and cities





**REGIONS
& CITIES**

**European Week
Brussels 7-10 October 2019**

Google Dades del mapa ©2019 GeoBasis-DE/BKG (©2009), Google [Termes i condicions](#) [Informe d'un error al mapa](#)

Connect with good practice owners from Interreg Europe projects and beyond.

Keyword search

Themes


- Research and innovation
- SME competitiveness
- ✓ Low-carbon economy
- Environment and resource efficiency

Countries/regions

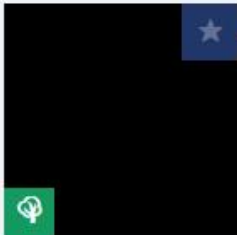
Netherlands (Nederland) ▼

Utrecht ▼

Search



Cycling exam - Cycle training in real traffic situation
Every year the practical road exam on the bicycle, it is tested ...
Location: Utrecht, Netherlands (Nederland)



Utrecht Road Safety Label and School Zones
The Utrecht Road Safety Label (UVL) is the hallmark (a quality ...
Location: Utrecht, Netherlands (Nederland)



**REGIONS
& CITIES**

European Week
Brussels 7-10 October 2019

School Chance GP: School Mobility Managers Network



City of Reggio Emilia



Main contact point in the school for the mobility policies



First School Mobility manager in Girona. December 2018



REGIONS
& CITIES

European Week
Brussels 7-10 October 2019

School Chance GP: Cycling exam - Cycle training in real traffic situation

1. Practical and a theoretical training



Utrecht



2. Cycling exam

8 signed routes 4-5 km





**REGIONS
& CITIES**

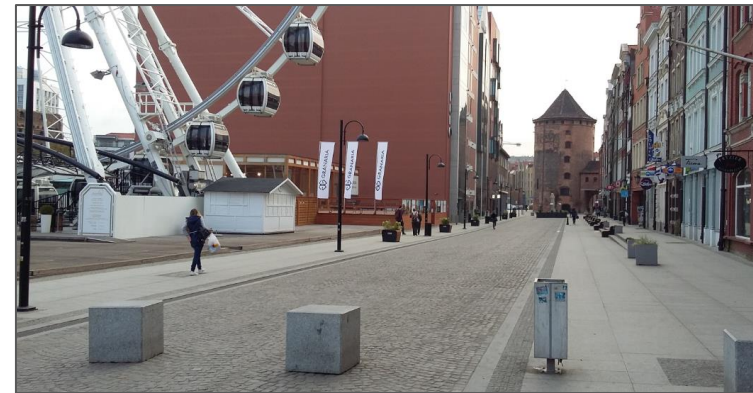
European Week
Brussels 7-10 October 2019

School Chance GP: Cycling May

Children, parents & staff are asked to make their journey to school in an active way in May

All active participants are rewarded !

Gdansk



If you need a simple & powerful way to make your city greener?

Have a go with ...




**School
Chance**
Interreg Europe



European Union
European Regional
Development Fund

M. Mercedes Teixidor
Head of Mobility department
Municipality of Girona
Spain
mteixidor@ajgirona.cat



School Chance team

Girona, Kick-off meeting 28th February 2017



**REGIONS
& CITIES**

**European Week
Brussels 7-10 October 2019**



gemeente
Schiedam

eurotowns* 



Industrial Symbiosis in Sabadell: a medium-sized city experience fostering a greener Europe through more sustainable industrial areas

Iolanda Repullo, Head of Business Support, Sabadell



**REGIONS
& CITIES**

European Week
Brussels 7-10 October 2019

Framework

- Spanish National Energy and Climate Plan: concern on sustainability and energy efficiency.
- Sabadell and its surrounding is the most industrialized area in the region: high production of industrial waste.
- 7 industrial areas that are part of the city of Sabadell with an impact on its sustainability as a city.
- Strong linkages among the different agents of the local ecosystem (companies, citizens, universities, local administration, etc.).



**REGIONS
& CITIES**

European Week
Brussels 7-10 October 2019

- Enough dimension to have relevant impact.
- Chance to keep close and thus gain trust and cohesion among the necessary stakeholders.
- Decision on 2014 for a supramunicipal project on industrial symbiosis.
- Industrial areas as a key element of wealth and job creation as well as the production of industrial waste: critical in terms of city's sustainability.
- Project building on assets of being a medium-sized city plus all the work done since 2008 connecting with industrial companies.



**REGIONS
& CITIES**

European Week
Brussels 7-10 October 2019

Actions

- Identification of companies, activities and generated waste.





**REGIONS
& CITIES**

European Week
Brussels 7-10 October 2019

- Data processing and identification of possible synergies.



RECUPERACIÓ D'AIGÜES RESIDUALS

6

REDUCCIÓ I/O MILLOR VALORITZACIÓ
D'EMBALATGES



RECUPERACIÓ DE PLÀSTICS/ETIQUETES

7



MILLORAR LA VALORITZACIÓ
DELS METALLS



MANCOMUNADA DE RESIDUS ORGÀNICS
PROCEDENTS DE MENJADORS DE LES
EMPRESSES

8



MILLORAR EL RECICLATGE (CICLE
DE VIDA) D'OLIS, FILTRES I BATERIES



PRODUCCIÓ DE BIOGÀS

9



TANCAR LA CADENA DE VALOR
DEL TÈXTIL



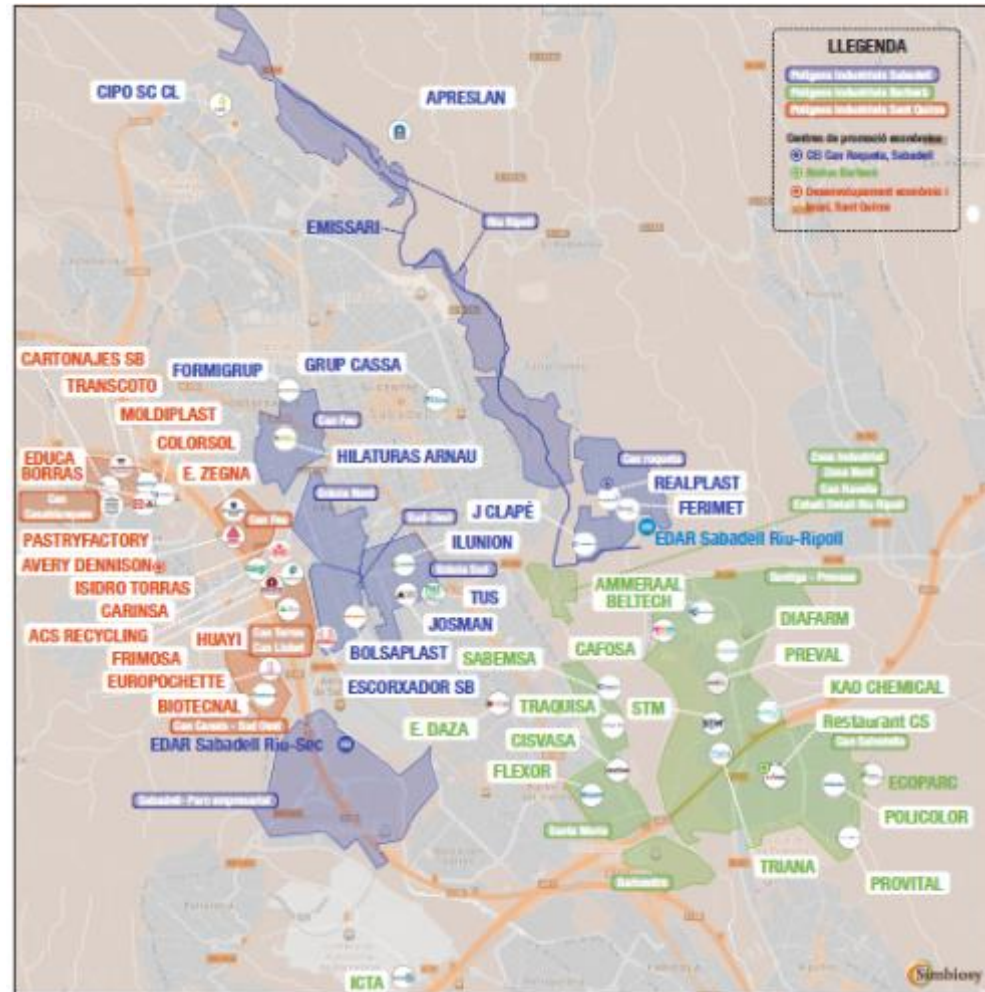
PREPARACIÓ PER A LA REUTILITZACIÓ DE
MATERIALS RESIDUALS



**REGIONS
& CITIES**

European Week
Brussels 7-10 October 2019

- Mapping opportunities and linkages among institutions.





**REGIONS
& CITIES**

**European Week
Brussels 7-10 October 2019**

Results

220 COMPANY VISITS

45 PERSONALIZED SUPPORT ACTIONS

21 BEST PRACTICES INFOGRAPHICS



**REGIONS
& CITIES**

European Week
Brussels 7-10 October 2019

Key factors of the process

- Gaining trust and loyalty.
- Sharing information.
- Raising group awareness.
- Public administration becoming a facilitator.
- Consolidating the specific strategy of circular economy.
- Producing communication products and best practices.



**REGIONS
& CITIES**

**European Week
Brussels 7-10 October 2019**

SIMBOSI INDUSTRIAL

REVALORITZEM ELS
RECURSOS SOBRRANTS



A què es dedica FORMIGRUP?

- FORMIGRUP està format per les empreses Formigons Montcau i Sorres i Graves Egara.
- Subministren àrids naturals i reciclats amb marcatge CE.
- Subministren formigons amb certificat D.O.R. i amb baixos nivells de variabilitat que asseguren als clients l'optimització de les dosificacions i el compliment de les especificacions i normatives vigents.
- 30 persones treballadores
- 3500m² repartits entre oficines i la nau d'àrids a Sabadell
- 136ha d'autorització d'explotació a la pedrera Sorranova

En els darrers anys estan investigant en nous formigons i àrids artificials.



Formigons Montcau S.A.
C. Valerió Almirall 63
08206, Sabadell
937 26 98 11
www.formigonsmontcau.sabadell.es



Simbiosi en l'aprofitament dels seus propis recursos

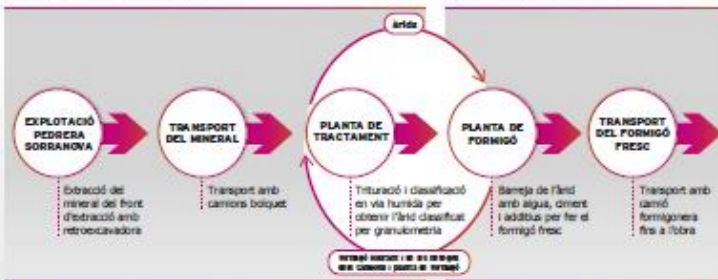


Sorres i Graves Egara S.A.
C. Joaquín Costa, 106
08206, Sabadell
937 26 88 89
www.sorresigravesegara.es

Com ho fan?

Sorres i Graves Egara

Formigons Montcau



RECURSOS D'ENTRADA

• Matèries primeres i altres:

- Ciment
- Àrids
- Additius
- Sorres de fundició
- Formigó sobrant propi i d'altres empreses fabricants de formigó → SUBPRODUCTE

• Energia

- Energia elèctrica pel formigó, la pedrera i les oficines
- Gasol per a camions i maquinària

• Aigua

- Utilitzen 150.000 m³/any per a la fabricació del formigó i el rentat dels àrids (el 93% ve de la reutilització)

RECURSOS DE SORTIDA

• Producte

- 42.000m³ de:
 - formigó estructural
 - formigó amb àrid reciclat
 - formigons especials
- 150.000 t de:
 - àrids naturals
 - àrids artificials
 - àrids procedents residus municipals
 - terres vegetals

• Residus

- 2,5 t de ferralla (ferro i acer) que es ven
- 3.000 t de formigó sobrant → SUBPRODUCTE

Simbiosi Industrial

FORMIGRUP té la capacitat empresarial per innovar en nous processos d'aprofitament i transformació de residus en el món de la construcció

En implementació...

1. Fabricació de terres vegetals amb productes reciclats
 - Utilització del compost de les plantes de residus properes
 - Producte certificat (CLV - Certificat de Lliure Venta)
2. Fabricació de formigons amb productes reciclats
3. Investigació
 - Fibra de vidre com a component estructurant (amb OWENS)
 - Petites peces de plàstic com a àrids per fer formigons més lleugers
 - Corindó per a formigons especials
 - Revalorització de: escòries d'incineradora de residus, sorres de fundició per a morter i llots de la fabricació de ceràmica

Noves línies de simbiosi

Aigua

Reutilització d'aigües provinents de la depuradora.



Xarxa

Promoure projectes en les associacions empresarials, administracions... en:

- Formigons amb nous productes
- Fabricació de terres artificials a partir de recursos sobrants



IMPRESION

AMB EL SUPORT DE





**REGIONS
& CITIES**

European Week
Brussels 7-10 October 2019

Impacts

For companies...

- Reduction of operating and production costs between the treatment and recovery of waste.
- Efficiency and increase in the production.
- Attraction of private investment and new products.
- Development of new sustainable projects among companies.



**REGIONS
& CITIES**

European Week
Brussels 7-10 October 2019

For the environment...

- Decreased demand for natural resources.
- Pollution decrease.
- Decreased demand to rubbish dumps.

For the society...

- Creation of new job places.
- Pollution reduction and its related diseases.



**REGIONS
& CITIES**

European Week
Brussels 7-10 October 2019

Thank you for your attention!

More info

www.simbisiindustrial.com

Contact

Iolanda Repullo

irepullo@ajsabadell.cat



**REGIONS
& CITIES**

European Week
Brussels 7-10 October 2019



gemeente
Schiedam

eurotowns* 

Medium-sized cities as drivers for a greener Europe



[#EURegionsWeek](#)

[@eurotowns](#)



**REGIONS
& CITIES**

European Week
Brussels 7-10 October 2019

YES or NO ?

1.

2.

1.



**REGIONS
& CITIES**

European Week
Brussels 7-10 October 2019



gemeente
Schiedam

eurotowns* 

Medium-sized cities as drivers for a greener Europe

THANK YOU!



[#EURegionsWeek](#)

[@eurotowns](#)