





# Ministry of the Environment of the Czech Republic

# **Sustainability**

## **Crucial Approach in Territorial Development**

Ing. arch. Marie Petrova  
Postojna, May 28, 2019



# Attractive Region vs. Sustainable Region

*"Can sustainability be an attractive development for regions in future?"*

***IT MUST BE!***

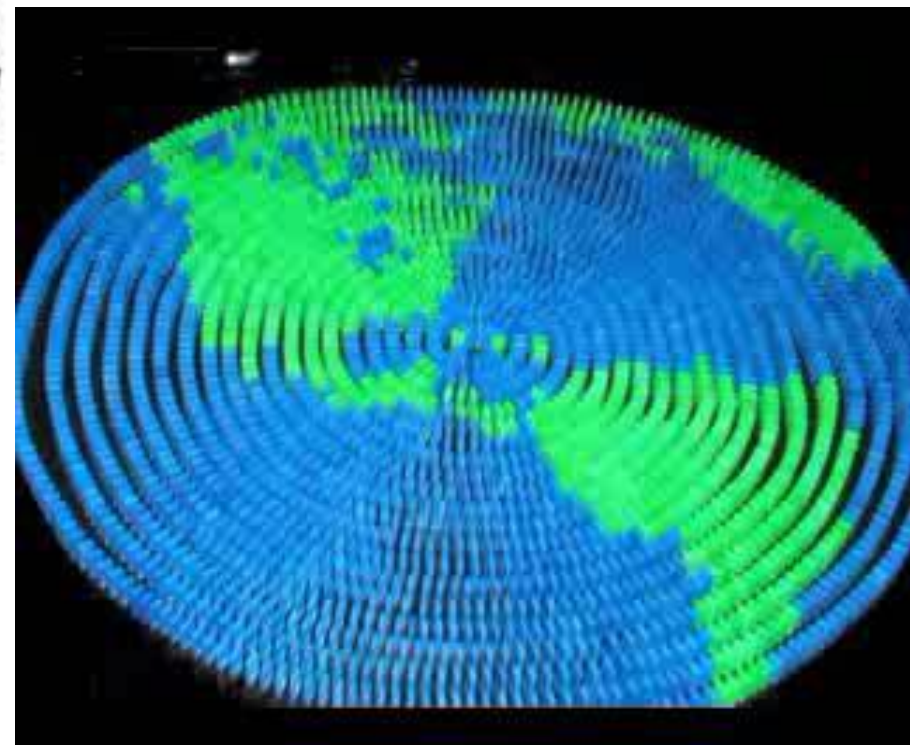
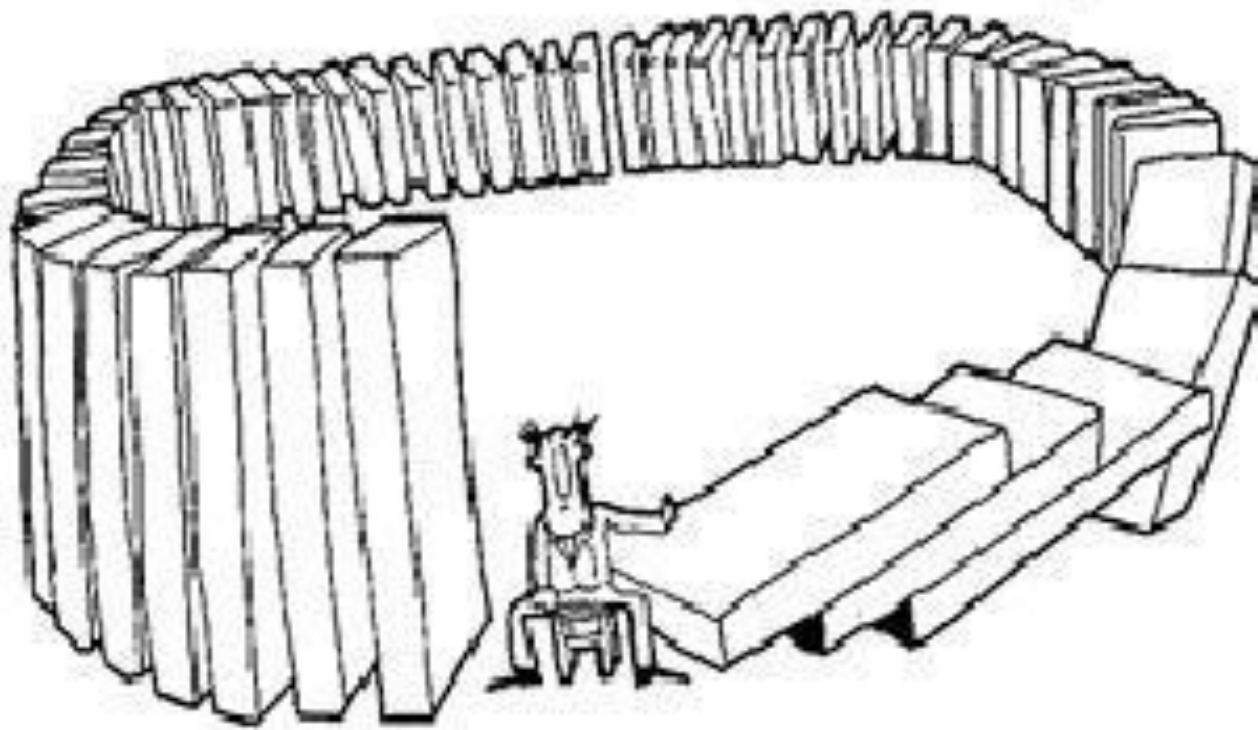
*We have to answer the questions*

***Why?***  
*and*  
***How?***

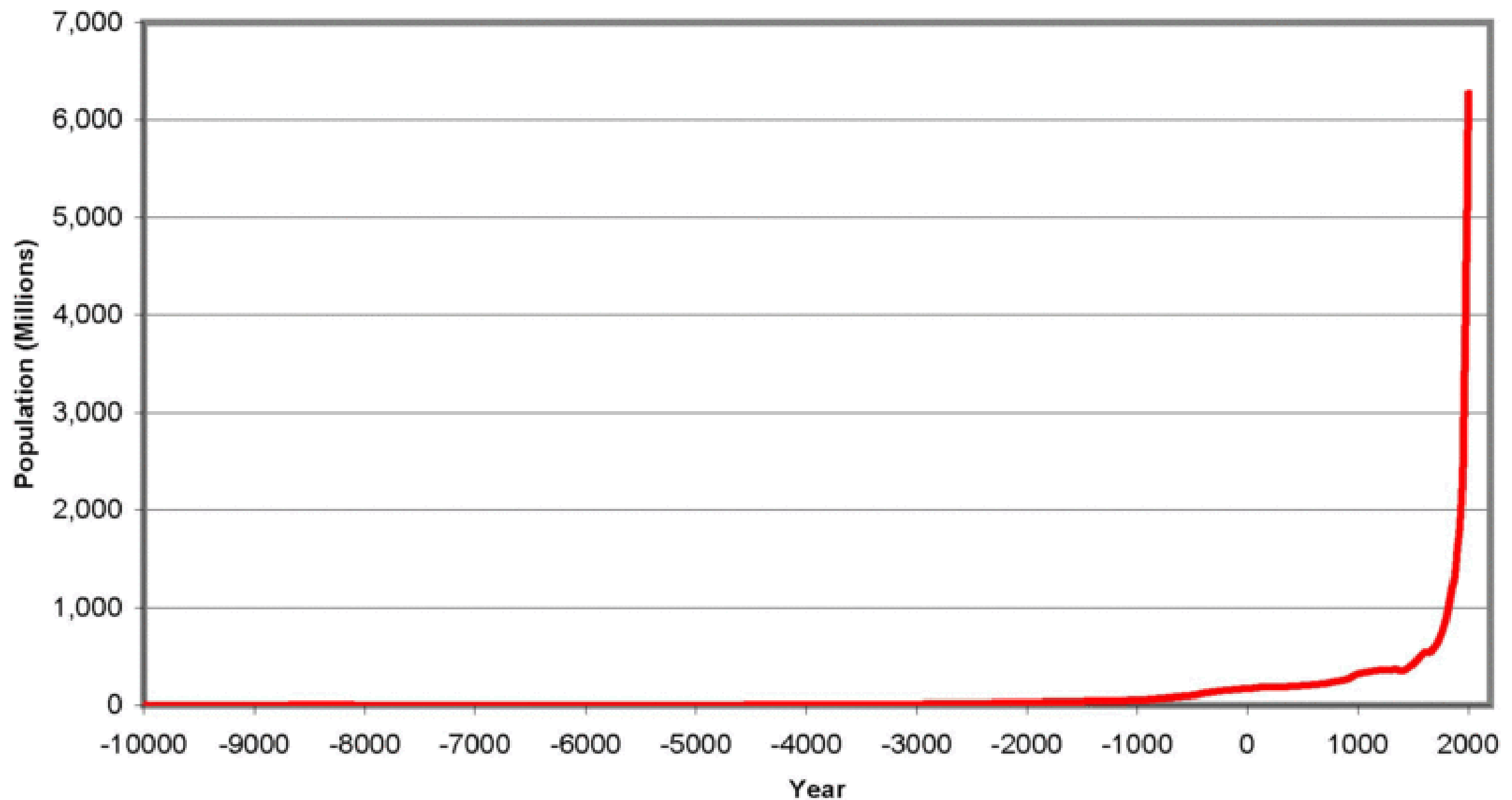


# The dominoes are falling all around us...

In complex systems, cause and effect are often distant in time and space



# World Population, 10,000 BCE - 2000 CE



**Source:** J. Bradford DeLong, "Estimating World GDP, One Million B.C. - Present." [http://www.j-bradford-delong.net/TCEH/1998\\_Draft/World\\_GDP/Estimating\\_World\\_GDP.html](http://www.j-bradford-delong.net/TCEH/1998_Draft/World_GDP/Estimating_World_GDP.html). Accessed Mar 5, 2008.

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# Our Territory



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If everybody lived as Europeans, **we would need 2.8 planets**. This year's EU Overshoot Day happens on the 10th of May.





# Planetary Boundaries

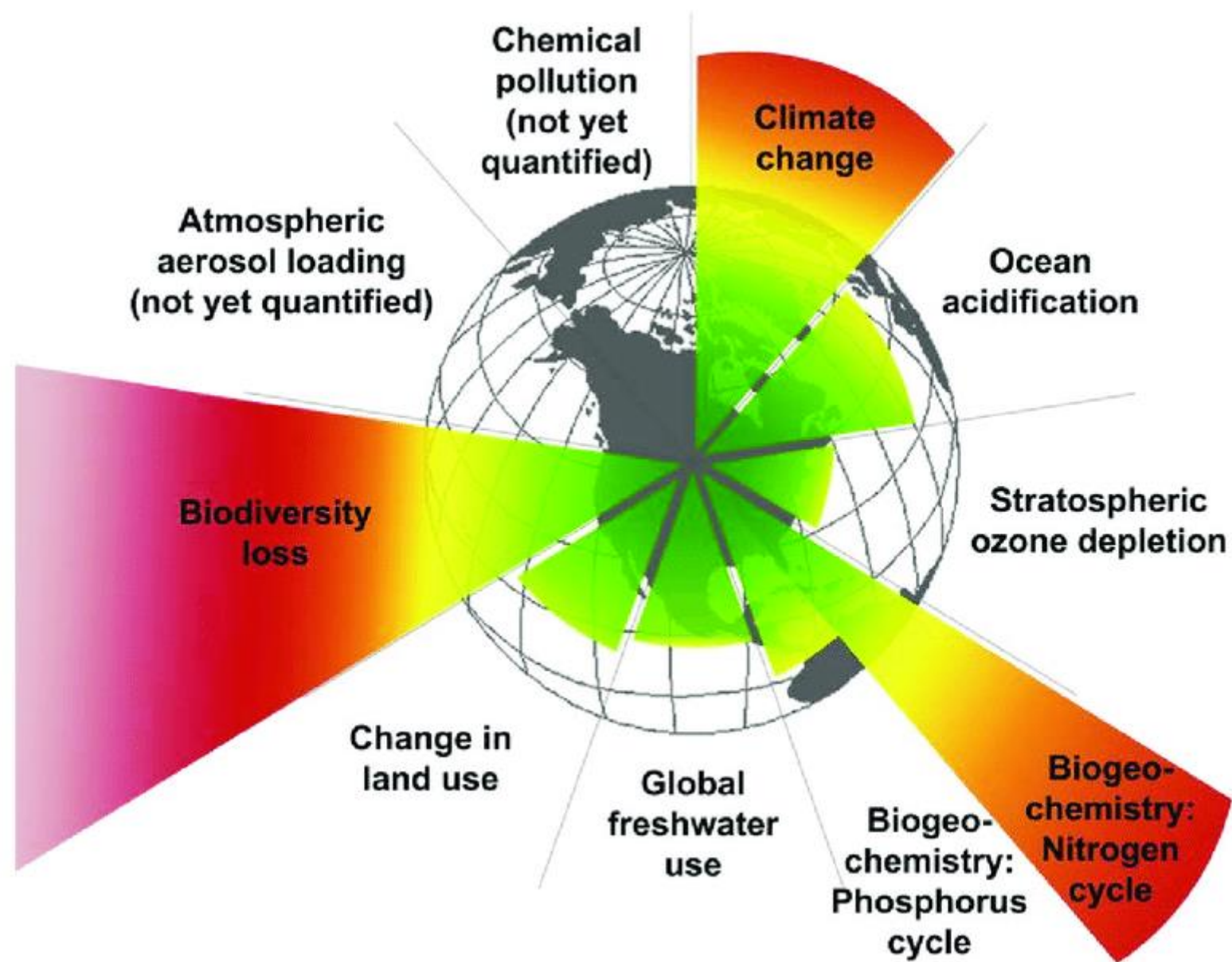
Johan Rockström, the executive director of the [Stockholm Resilience Centre](#):

- all we need to do is **stay within some limits**, nine upper boundaries for bad behavior
- humanity has already **raced past four of the nine boundaries** keeping our planet hospitable for modern life
- we're already close to **points of no return**
- stability is under threat now. **Crossing two boundaries** — climate change and the health of the planet's ecosystems — is especially worrisome because doing so **can shove the Earth into completely different states**
- argue that humans are clever enough to thrive even if the Earth does lurch away from the stability. But **why take the risk?**



# Planetary Boundaries

2009



# Planetary Boundaries 2015

## The 9 planetary boundaries

To keep Earth hospitable, we need to live within 9 specific limits. Here's how we're doing in 2015.

	BOUNDARY	WHERE WE ARE TODAY
1. <b>Climate change</b>	Atmospheric concentrations of carbon dioxide at no more than 350 ppm	Carbon dioxide levels are at 400 ppm and climbing
2. <b>Lost biodiversity as species become extinct</b>	Maintain 90% of biodiversity	Biodiversity has dropped to 84% in parts of the world such as Africa
3. <b>The addition of phosphorus, nitrogen (and other elements) to the world's crops and ecosystems</b>	Worldwide use per year of about 11 teragrams (Tg) of phosphorus and 62 Tg of nitrogen	Up to about 22 Tg per year of phosphorus and 150 Tg of nitrogen
4. <b>Deforestation and other land use changes</b>	Maintain 75% of the planet's original forests	Down to 62%
5. <b>Emission of aerosols (microscopic particles) into the atmosphere that affect climate and living organisms</b>	Global boundary unknown, but regional effects (such as on the South Asian Monsoon) occur when Aerosol Optical Depth (AOD) is more than 0.25	Up to 0.30 AOD over South Asia, but probably well inside (or below) the boundary over most of the globe
6. <b>Stratospheric ozone depletion</b>	Less than 5% below pre-industrial level of about 290 Dobson Units (DU)	Still safely inside the boundary except over Antarctica during spring, when levels drop to 200 DU
7. <b>Ocean acidification</b>	When the oceans become acidic enough that the minerals sea creatures need to make shells, such as aragonite, begin to dissolve	Still within the boundary, which won't be crossed if we can stay within the climate boundary of 350ppm of CO <sub>2</sub> in the atmosphere
8. <b>Freshwater use</b>	Can use up to 4000km <sup>3</sup> of freshwater a year	We use around 2600 km <sup>3</sup> of freshwater per year
9. <b>Dumping of organic pollutants, radioactive materials, nanomaterials, micro-plastics, and other novel or man-made substances into the world's environment</b>	Unknown	Unknown







*“your zero activity is burying our future“*

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**"?! NO FUTURE !?"**

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# SUSTAINABLE DEVELOPMENT GOALS



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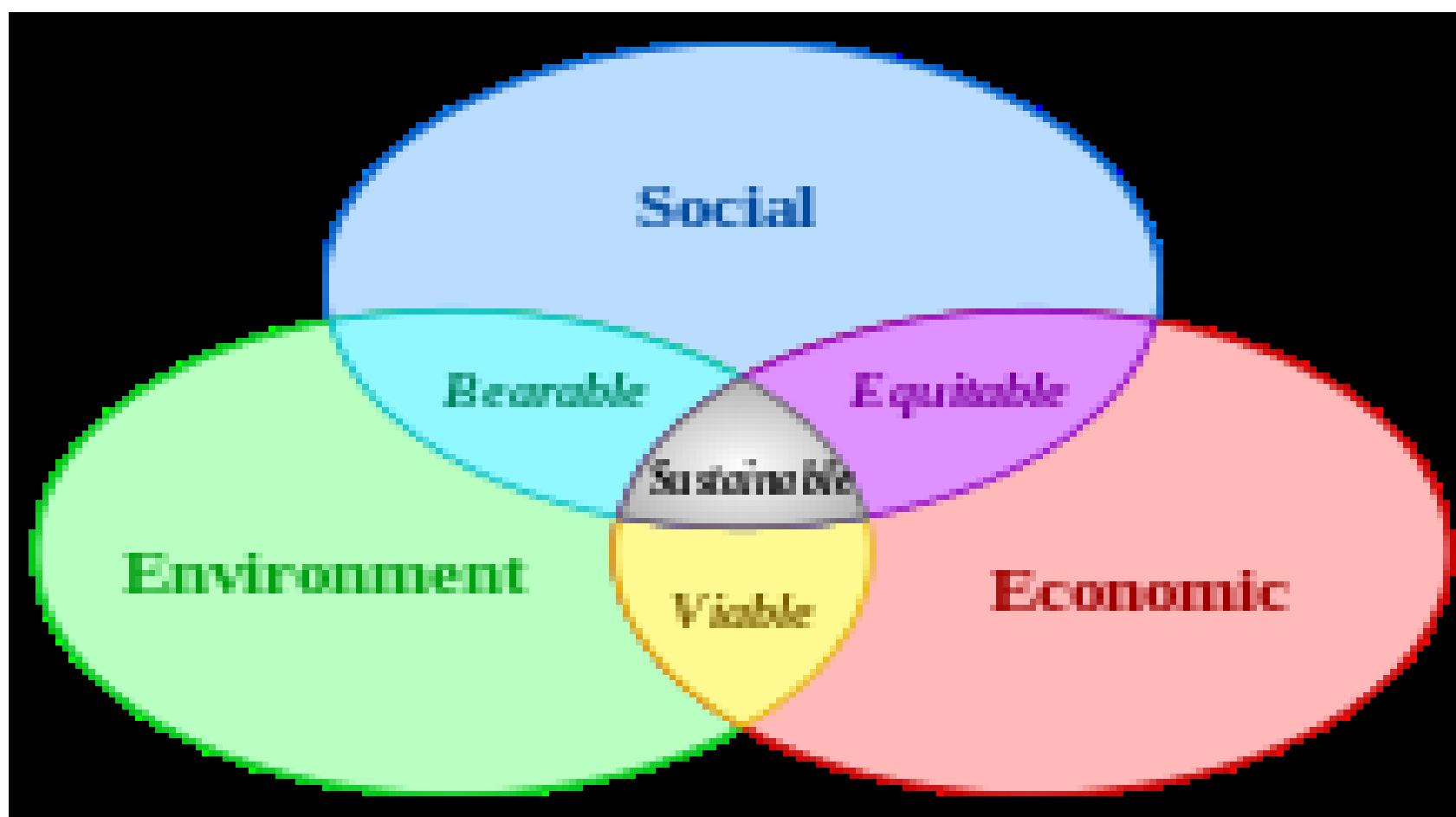
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# Sustainable space



# How to manage SD at local level?

Sustainable Cities...

**Smart Cities**

**Healthy Cities**

**Shared Cities**

**Green Climate Cities**

**Homegrown Cities**

**Nature-based Cities**

**...and many others**



# Challenges

*Climate change, Adaptation, Biodiversity*

Energy conservation, **Carbon neutral city,**  
*efficient use resources,* env. management  
Sust.Transport/Mobility, *Construction*

... Topics interesting for citizens...

Health, *social issues,* culture, **economy,**  
*environment,* habitation, *migration*

Participation - Quality - Management

And more...

**How to put it together? How to take it up?**



We are building our cities, municipalities and regions:  
**with respect to the legacy of ancestors,  
considering the needs of contemporaries,  
with responsibility for the future of the offspring**



# místní Agenda 21



# Local Agenda 21

## in the Czech Republic

- 1/ SD principals implementation tool
- 2/ method of quality, integrated/systemic approach
- 3/ "umbrella" process

***"With respect to the ancestors,  
taking into account the needs of the contemporaries,  
with the foresight for the future of the descendants"***



# International context

## **Agenda 21 – 1992, MDGs – 2000, OSN**

Aalborská charter/1994, Aalborg Committments /2004 (Local Governments for Sustainability), Leipzig Charter on Sustainable European Cities, Covenant of Mayors /2008, Europe 2020/2010 (EK), Convention on Climate Change/ Copenhagen 2010, The Future we Want/2012 (OSN) ... Smart Cities and Communities/2012 (EK Com), 7. AP for Env./2013 (EK), Mayors Adapt/2014...

## **Agenda 2030, SDGs – 2015 OSN**

COP 21 - UN Climate Change Conference (Paris 2015)

Urban Europe (2016)

Basque Declaration(Bilbao 2016)





# LA21 Support at National Level

- **SD Strategic Framework** – approved by the Gov. 2017
- **Implementation plan** of the SDSF (2018)
- **LA21 Concept of Support** and Development 2012 - 2020 and Action Plans
- **Systematic and Financial support**
- **Evaluation** – **LA21 Criteria**: 4 Categories - depending on the process' quality  
**Methodics + Indicators**: updated in 2018, made with experts and cities cooperation

## Internal audits



# SD/LA21

## Institutional Background at National Level

### **Governmental Council for Sust. Development Committee for Sustainable Municipalities**

members: resorts, mun. associations, NGOs, academic sector  
aims: synergy of tools, sharing information

### **LA21 Working Group**

resorts, mun. associations, NGOs, academic sector,  
municipalities  
aims: platform for discussion, methods, financial and  
evaluation framework, sharing information

### **Expert Group**

methods, indicators, evaluation

### **Information System**

focussed on different groups, LA21 databases



# LA 21 – Information System [www.ma21.cz](http://www.ma21.cz)

+420 724 549 968

MA21@CENIA.CZ

HLEDAT



Oficiální stránky Informačního systému místní Agendy 21

Zaregistrovat se | Přihlásit

Úvod

O MA21

Přehledy

Dokumenty

Kontakty

Aktuality

## Pro veřejnost

Základní informace o procesu MA21, dokumenty, statistiky, přehledy realizátorů a jejich výsledků při realizaci MA21.

## Pro realizátory MA21

Vstup do zabezpečené části systému a informace pro aktivní realizátory MA21 v České republice.

## Pro členy PS MA21 RVUR

Pracovní skupina Rady vlády pro udržitelný rozvoj pro místní Agendy 21 je garantem všech procesů hodnocení MA21.

## Pro expertní tým MA21

Expertní tým PS MA21 vypracovává oponentní stanoviska k Auditům udržitelného rozvoje, které realizátoři MA21 zpracovávají v kategoriích C, B a A.

## Pro zájemce

Má vaše město, obec, kraj, mikroregion, místní akční skupina, či jiná organizace zájem o zapojení do MA21?

### Nejlepší realizátoři 2016

Chrudim **kat. A**  
Litoměřice **kat. A**  
Křížánky **kat. B (malá obec)**  
Kopřivnice **kat. B\*\*\***  
Vsetín **kat. B\*\*\***

### Aktuální statistika: k dnešnímu dni je celkový stav procesu MA21 následující:

kategorie	počet
kategorie A	2
kategorie B	3
kategorie C	49
kategorie D	25
zájemci	98
ostatní	48

Další aktuální přehledy jsou k dispozici v sekci [Přehledy](#)

Jste zde: [Úvod](#)

Naše města, obce a regiony budujeme:  
*s úctou k odkazu předků,  
s ohledem na potřeby současníků,  
s odpovědností za budoucnost potomků*

## Aktuality MA21

### 2. řádné zasedání PS MA21 - 21.6.2017 od 13. hod

9. června 2017



místní Agenda 21

Pracovní skupina pro místní Agendu 21 Rady vlády pro udržitelný rozvoj se sejde na svém druhém letošním řádném zasedání dne 21.6.2017 od 13 hodin v budově Ministerstva životního prostředí, Vršovická 1442/65, Praha 10.

Aktuální seznam členů je k dispozici v sekci "Pro veřejnost"

Zápisy z minulých zasedání Pracovní skupiny naleznete v sekci [Dokumenty](#).

[read more ...](#)

### Registrace

Registrace pro nové zájemce  
Kontrola průběhu nové registrace  
Deaktivované registrace (celoroční neaktivita)

### Další odkazy k MA21

[Rada vlády pro udržitelný rozvoj](#)  
[Oficiální stránky k udržitelnému rozvoji ČR](#)  
[Dobrá praxe v MA21](#)  
[Galerie udržitelného rozvoje](#)

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# General principles

- **Voluntary basis**
- **Political support**
- **Vision, sustainable goals**
- **Integrated approach, synergy**
- **Strategic planning and management**
- **Criteria/measurability**
- **Public participation**
- **Role of model cities – best practice**
- **Collaboration cities – experts**
- **Networking**






## A. CATEGORY

*Identification of problems and solutions:*  
**Local SD audit (obliged), indicators, trends of SD**

## B. CATEGORY





*Identification of problems and solutions:*  
**Strategic management towards SD, Local SD audit (obliged)**

## C. CATEGORY



*Identification of problems and solutions:*  
**Community engagement, Local audit (voluntary)**

## D. CATEGORY



*Identification of problems and solutions:*  
**Organisational support** for raising quality of public service.



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# SD Evaluation based on data

## evaluated areas

- **Governance** – SD planning and development (quality of public administration, management system of development)
- **Territorial development** - strategy, master plan, public participation ...)
- **Environment**
- **Sustainable Production and Consumption** (Public procurement, sustainable construction,...)
- **Transport** (public transport, non-motorized transport,...)
- **Health**
- **Local Economy and Business** (employment, availability of services, sustainable tourism,...)
- **Education and Upbringing**
- **Culture and Leisure**
- **Social Environment** (living conditions for disadvantaged groups,...)
- **Global Responsibility**

Inspired by [Aalborg Commitments](#)

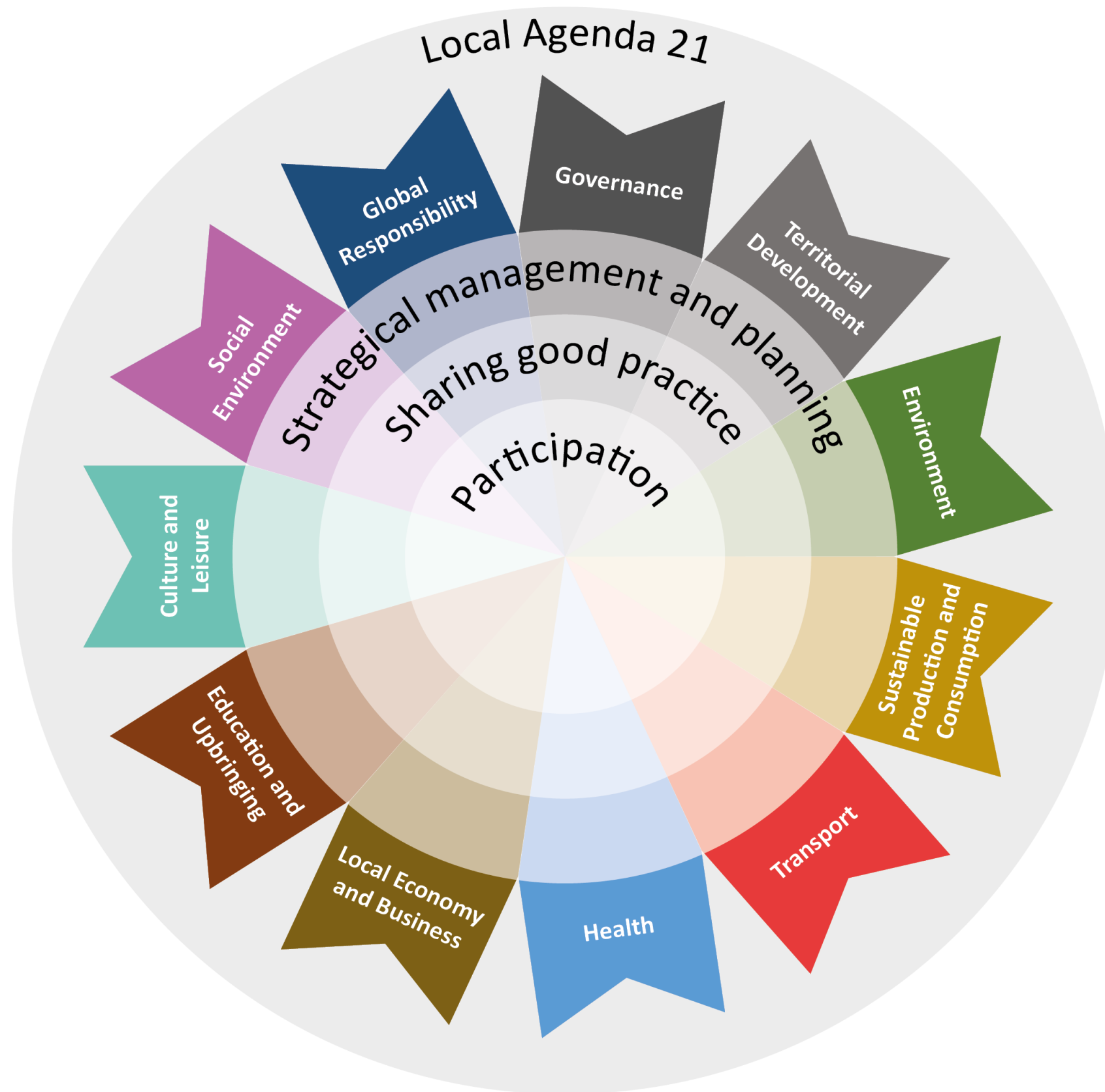
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# Evaluation of the sustainable development of towns according to the methodology LA21



# Governance

- Setting the levels and consistency of processes and documents
- Cost effective and efficient carrying out of activities, actions and fulfillment of plans
- Communication and partnership
- Citizens' satisfaction with quality of life



# Territorial Development

- Development of rational, functional use and spatial arrangement of the territory
- Sustainable design and construction of high-quality architecture and building technologies
- Regeneration and utilization of unused or inappropriately used land and buildings
- Regeneration of older housing, public and technical facilities and public spaces
- Preparedness for the consequences of global climate change



# Environment

- Water quality, saving water and more efficient usage of water
- Support and improvement of the ecological stability of the landscape and biological diversity on the administrative territory of the municipality, the expansion of care by defined natural areas and green areas
- Quality and soil protection, support of sustainable agriculture and forestry
- Air quality



# Sustainable Production and Consumption

- Sustainable consumption of the city
- Waste management
- Energy management
- Sustainable building (sustainable construction)





# Transport

- Support of public transport and other types of alternative transport (walking, cycling), infrastructure
- Reducing the need for the individual use of cars and supporting of alternative types of transport (transport demand)
- Low-emission vehicles
- Road traffic safety
- Reducing the impact of transport on the environment and the health of the population



# Health

- Integration of health concerns into planning and decision-making
- Health promotion and disease prevention
- Health of the population



# Local Economy and Business

- Recovery and support of local employment and the creation of new businesses and companies, while maintaining the principles of sustainable development
- Cooperation with local businesses and companies in order to support the exchange of experience from good business practice
- **Sustainable local tourism**



# Education and Upbringing

- Implementation and support of the education for sustainable development in schools and educational establishments founded by municipalities or another founder
- Support for NGOs and other institutions providing non-financial education in the field of sustainable development
- Creation of a program of education, upbringing and awareness of the local inhabitants (all target groups) in the area of sustainable development and its implementation
- Leisure activities fulfilling a healthy lifestyle in order to maintain the quality of the environment



# Culture and Leisure

- Relationship of the town with culture
- Relationship with its cultural heritage
- Cultural and artistic (events) that respond to the needs and initiatives of the citizens
- **Attractiveness and appearance of the town**



# Social Environment

- Establishment and implementation of programmes for the prevention and alleviation of poverty
- Ensuring equal access to public services and reducing social inequalities
- Ensuring quality and socially-integrated housing and living conditions
- Improving security, safety and crime prevention in the town





# Global Responsibility

- International cooperation of cities and municipalities
- Raising awareness in a global (including climate change)
- Access of the city to mitigation of climate changes



# ...change the mind... and enjoy it



**Thank you for your attention 😊**

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