

European Centre for Disease Prevention and Control

# Exploring changing urban environments in different future scenarios through foresight

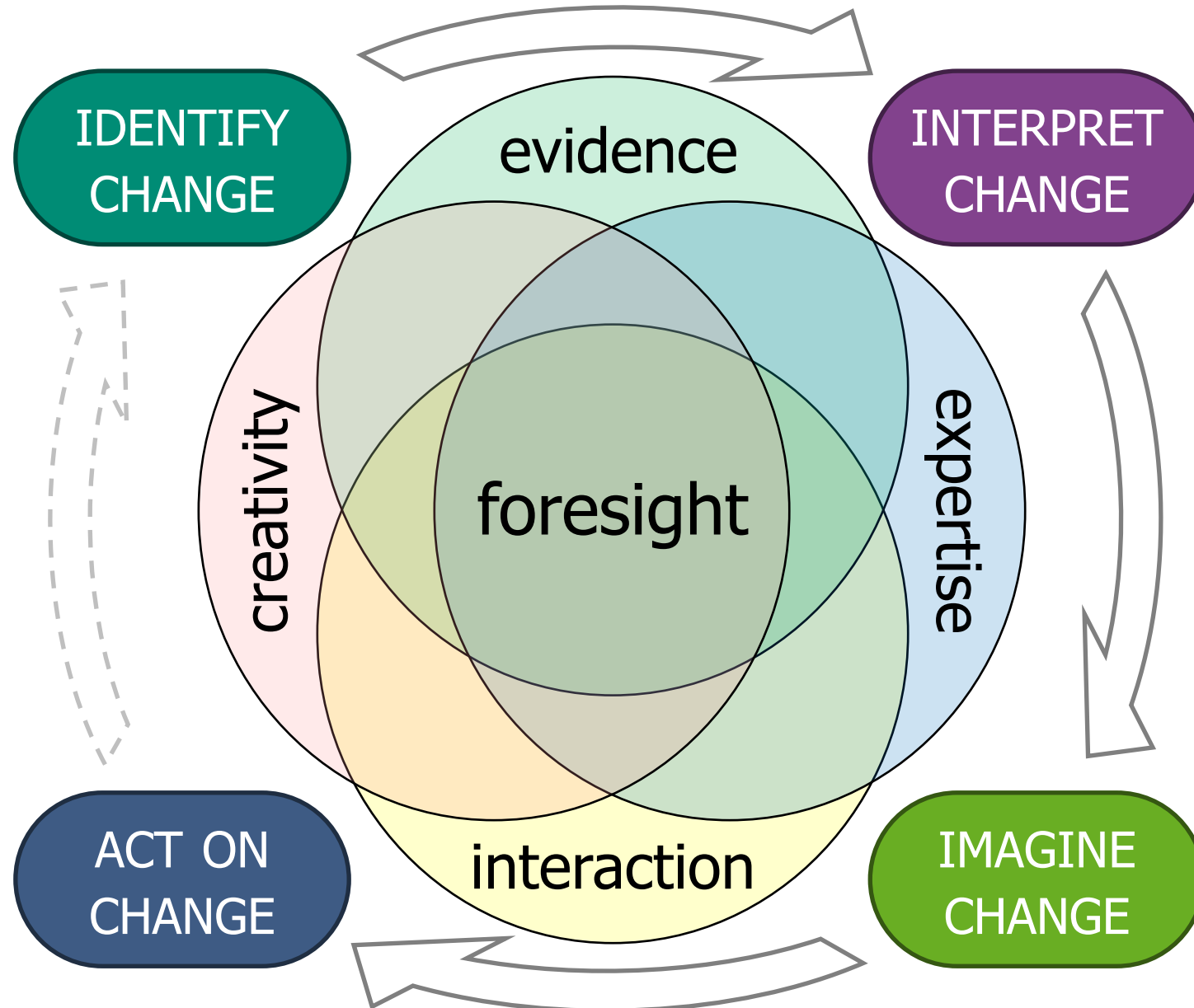
Eurosurveillance scientific seminar @ ESCAIDE 2023, 23 November 2023

Dr. Gerjon Ikin, Principal Expert Public Health Foresight and Determinants

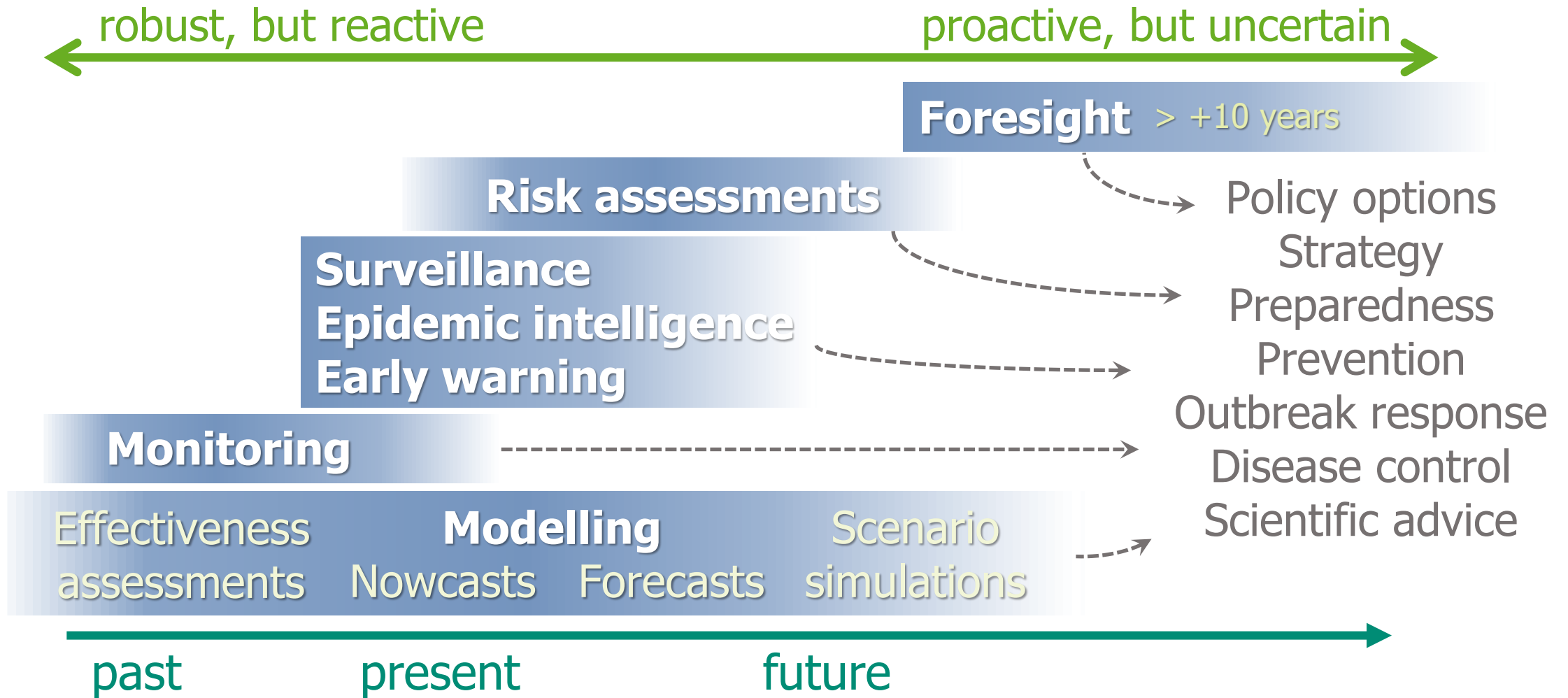
# Why do foresight at ECDC?

- Before COVID-19: exploratory, not integrated
- Lesson learned from pandemic: **look wider and further ahead**
- Become more **anticipatory, proactive, resilient** (mandate)
- Prepare for future threats & inform **strategy + operations**
- Wider internal + external collaboration, **culture-shift**
- Participation & capacity building: **systems/futures thinking**

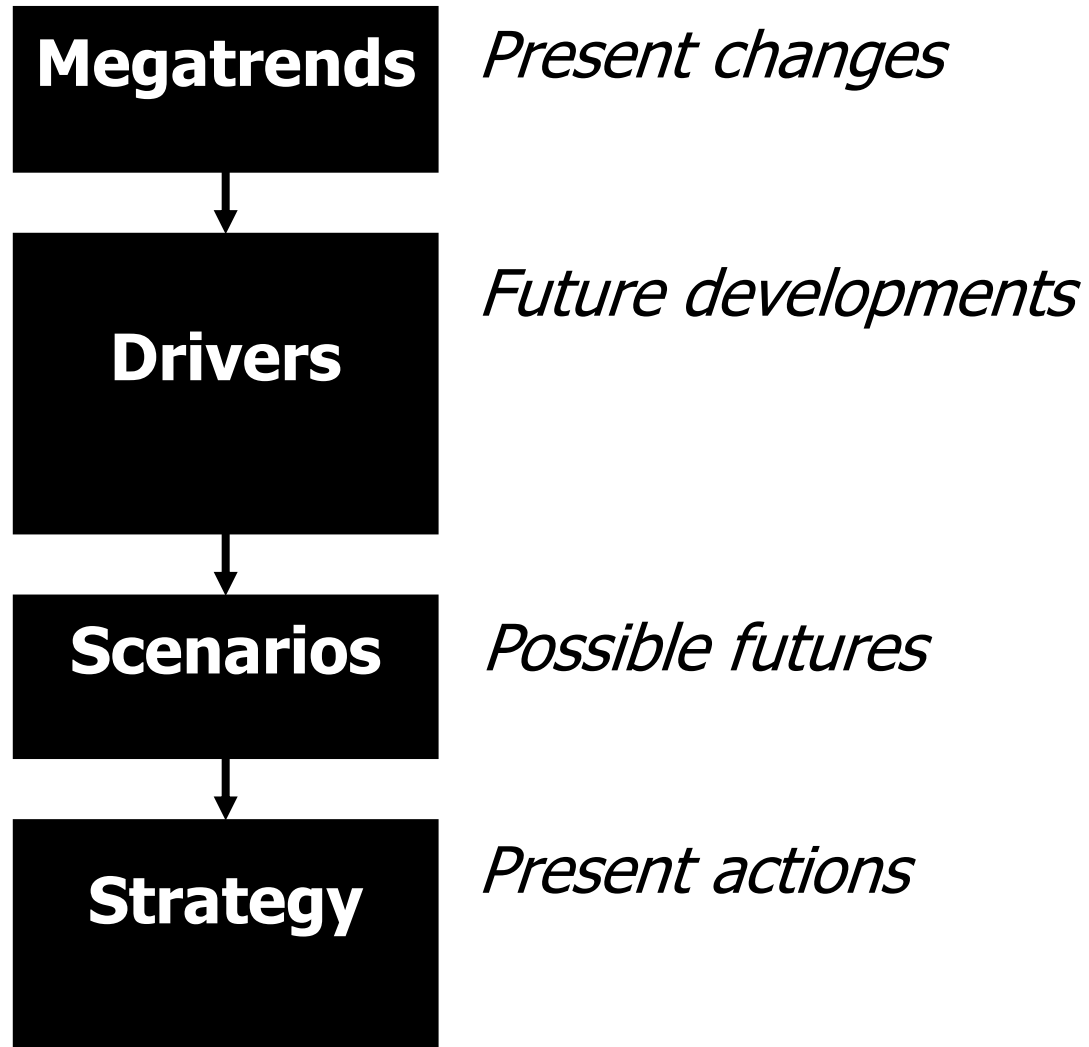
# Foresight: structured multi-methods-approach on change



# ECDC activities: strategic foresight



# Ongoing project: today's actions for tomorrow's threats

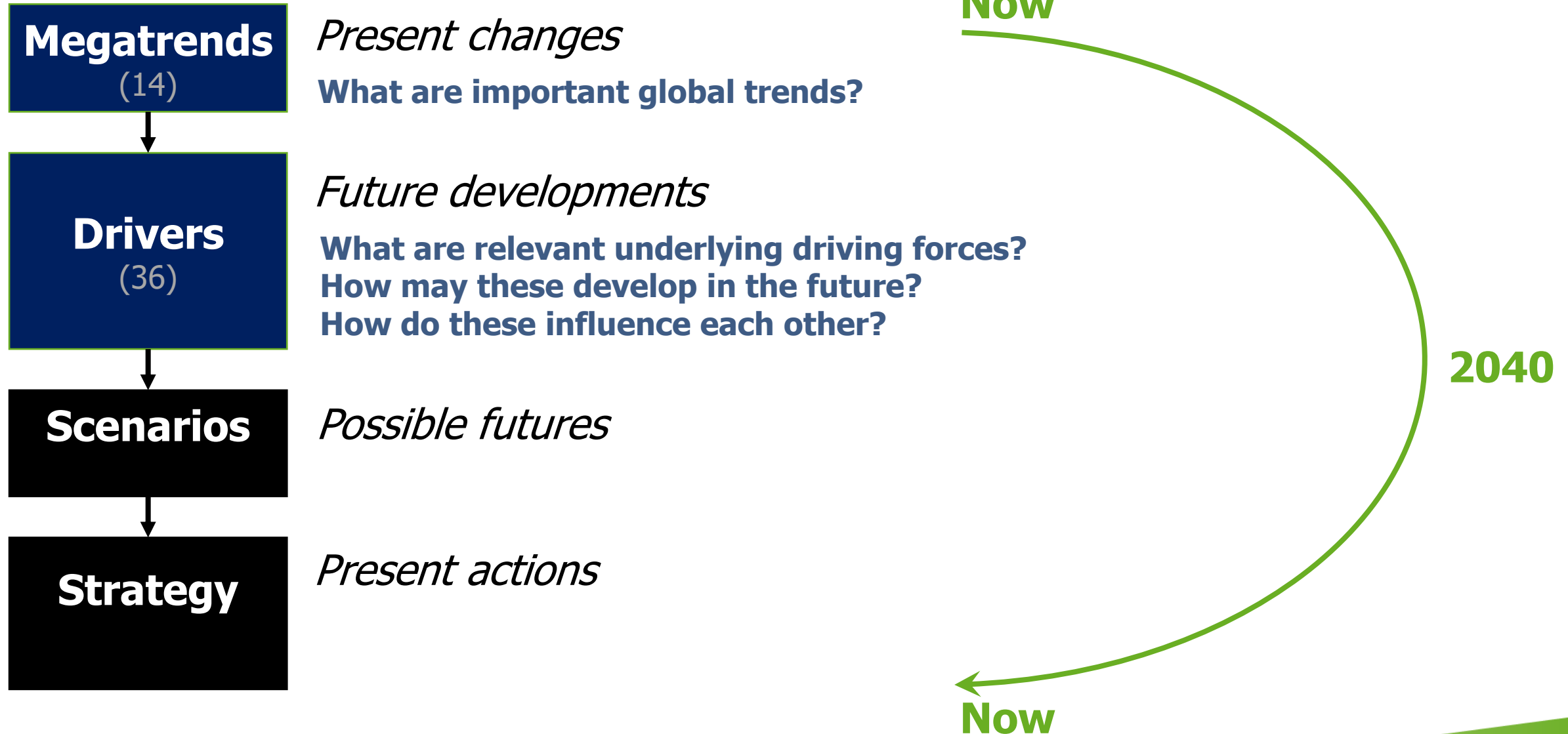


**Now**

**2040**

**Now**

# Ongoing project: today's actions for tomorrow's threats



# Key drivers of change for public health in EU/EEA



**Inequalities** in Access to Healthcare



International **Migration and Travel**



**Climate Change**



New Distribution of **Wealth and Influence** (Africa, China, India)



Impacts of **Ageing** Populations



New Modes of **Learning and Communication**



**Urbanisation** Globally and in the EU



**Data** Collection, Security, Analysis and A.I.



Pressure on **Natural Resources and Ecologies**



**Antimicrobial Resistance**

# Driver of change: Urbanisation

## Challenges/opportunities for prevention/control of infectious diseases:

- Encroachment (*zoonoses; pathogen emergence*)
- Population density / overcrowding (*respiratory infections*)
- Access to healthcare (*vaccination; surveillance; transport*)
- Heat-island effect (*population vulnerability*)



# Driver of change: Urbanisation

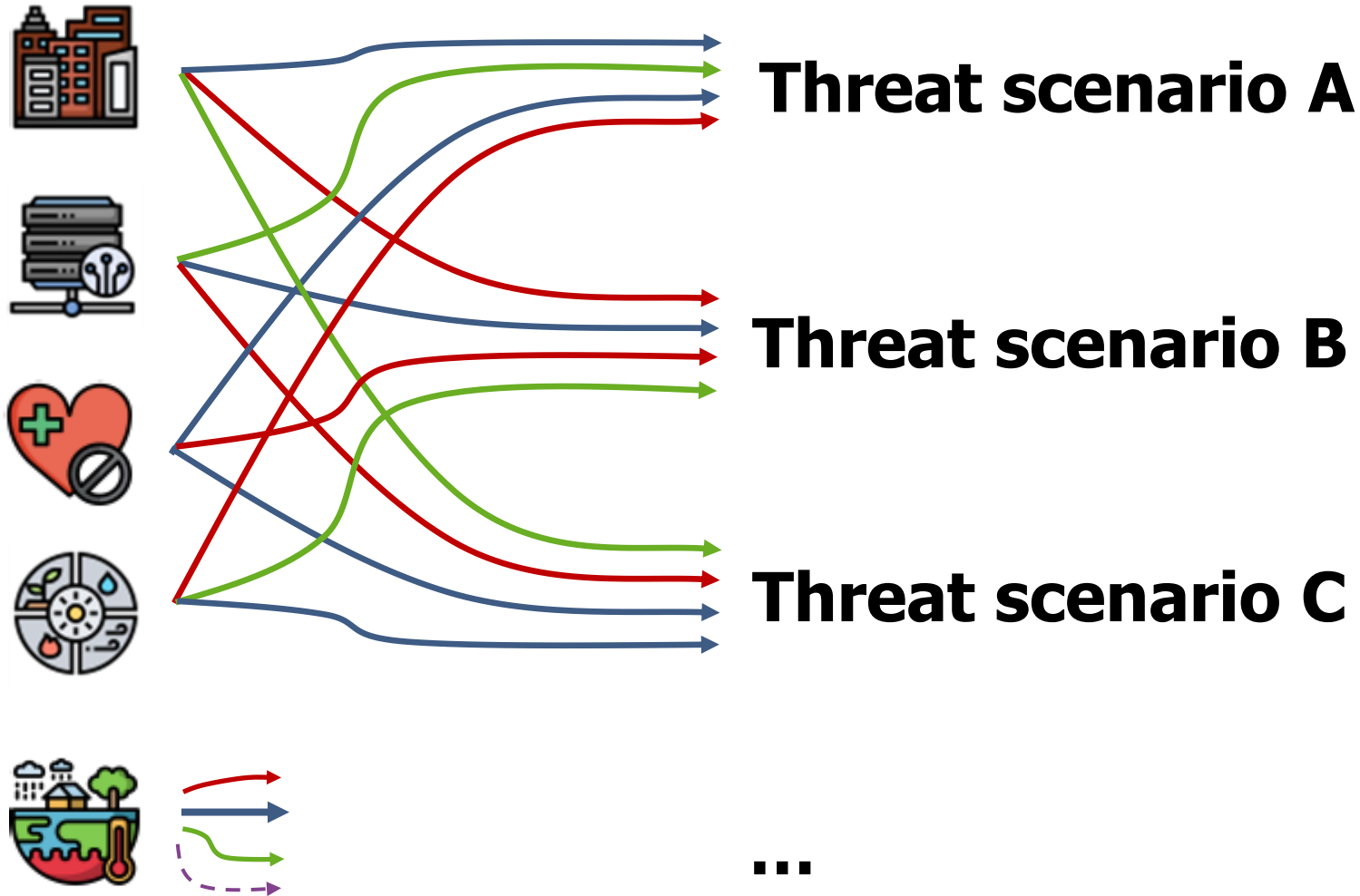
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## Linked drivers of change:

- Data collection; Pressure on natural resources and ecologies
- Inequality (+ migration) (*living conditions; social/cultural/language barriers*)
- Climate change (*flood/drought reservoirs; insulation vs ventilation*)

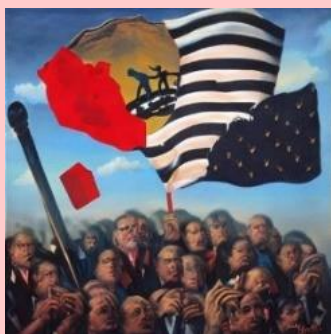
# Threat scenarios from connected driver directions



# Ongoing project: today's actions for tomorrow's threats



# Six future scenarios based on connected drivers



## Divide and Prejudice

- Polarised and fragmented
- Lack of cooperation



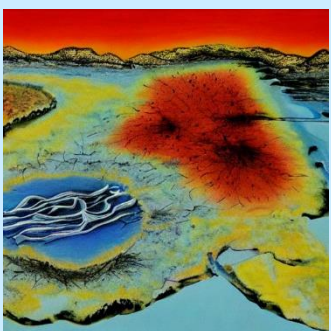
## Building Back Nature

- Complex transformation
- Power outside EU



## Public Health in Private Hands

- Market forces in control
- High inequality



## A United EU in a Polycrisis World

- EU autonomy & solidarity
- No global governance



## Urban Dominion and Digital Society

- Power with cities & youth
- High-tech



## A Patchwork Society

- Self-organised communities
- High diversity

# Scenario: Building Back Nature

- Dominant paradigm: to deal with consequences of climate change and to live with the powers of nature
- International cooperation led by international coalitions of the global south
- EU weaker internationally, but more influence in Europe, including in public health
- Focus on nature-based solutions, sufficiency-based policies and sustainability-oriented actions



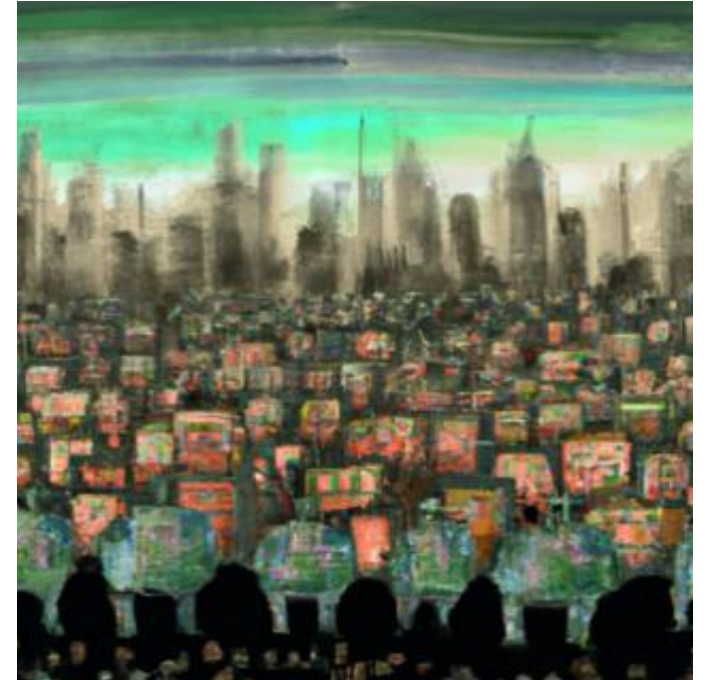
# Scenario: Building Back Nature

## Challenges/opportunities for prevention/control of infectious diseases:

- Spread of disease vectors (*greening*)
- Increased human-animal contact (*livestock; wildlife*)
- Food- and water-borne diseases (*'self-sufficiency'; pests*)
- Vaccine/medicine shortage and resistance (*'nature-based'; anti-globalisation*)
- New disease emergence and reservoirs (*rewilding*)
- More resilience (*air quality; cooler; physical activity; mental health*)

# Scenario: Urban Dominion and Digital Society

- Highly digitalized urban transformation to mitigating climate change
- Older populations face challenges with exclusion of non-tech-savvy individuals
- The consequences of climate change, several pandemics and other crises generated frustration with the 'mainstream' way of living
- This poses new problems for traditional governance institutions



# Scenario: Urban Dominion and Digital Society

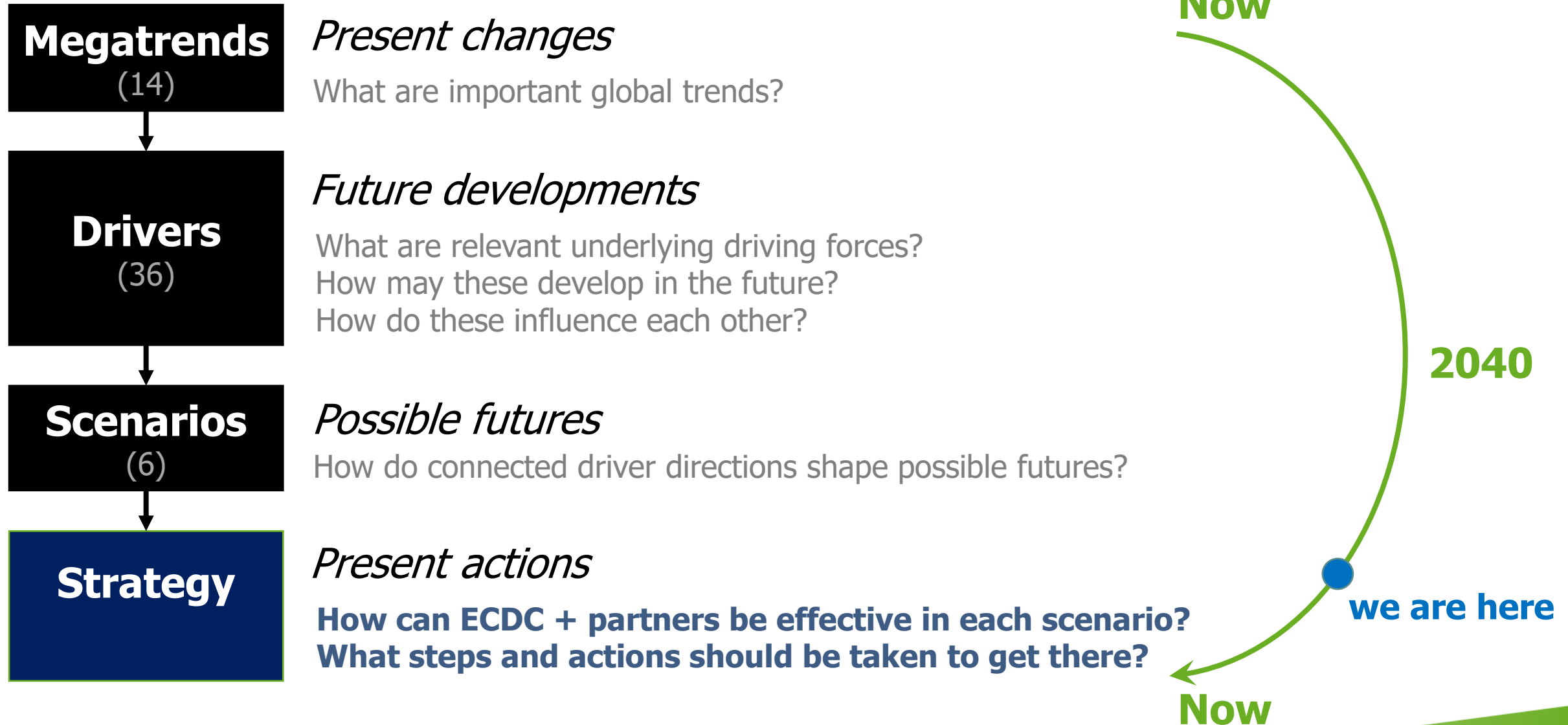


## Challenges/opportunities for prevention/control of infectious diseases:

- Higher transmission rates (*density; mobility*)
- Remote work (*physical activity; inequality*)
- Antimicrobial resistance; healthcare associated inf. (*pressure; centralised*)
- Access to healthcare (*e-health; AMR; HAI*)
- Pathogen (re)emergence (*encroachment*)
- Zoonoses and food-borne diseases (*peri-domesticated animals*)
- Gene editing (*drug development; therapy; species hybridisation; gene drive*)



# Ongoing project: today's actions for tomorrow's threats



# Early reflections with relevance to cities



- Liaise more directly with cities
- Promote collaboration between health and urban planning / infrastructure
- Sociodemographic and spatial data in surveillance systems and modelling
- Promote citizen engagement in monitoring and surveillance (vector; wearables)

# Any questions?

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