



Climate-KIC

Innováció a fenntartható növekedés
és a klímaváltozás hatásainak
csökkentése szolgálatában

Budapest, 2012. nov 08.

Zentkó László

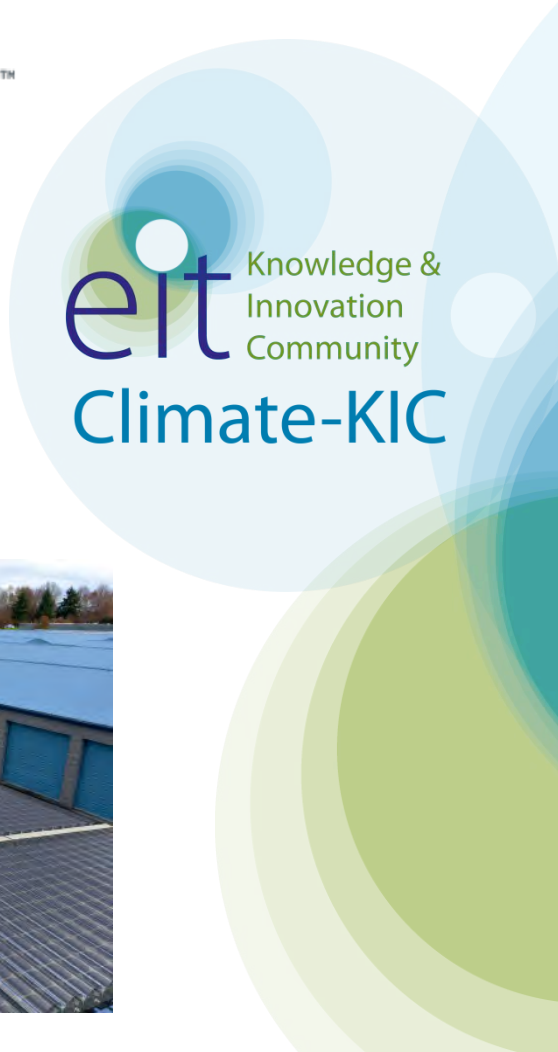






START-UP BUN

Sainsbury's



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2008: EIT >> 2010: KIC-ek

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Innovációs Közösségünk

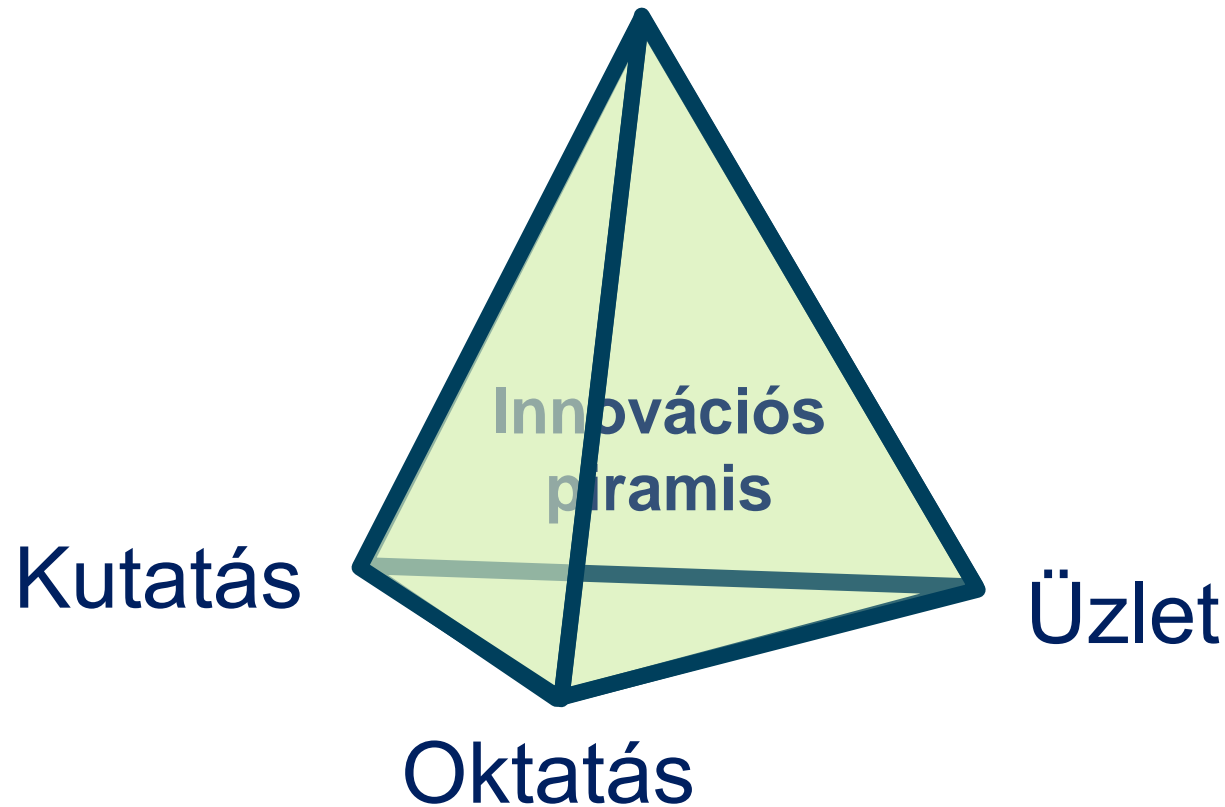




Kiválóság mindenekeelőtt

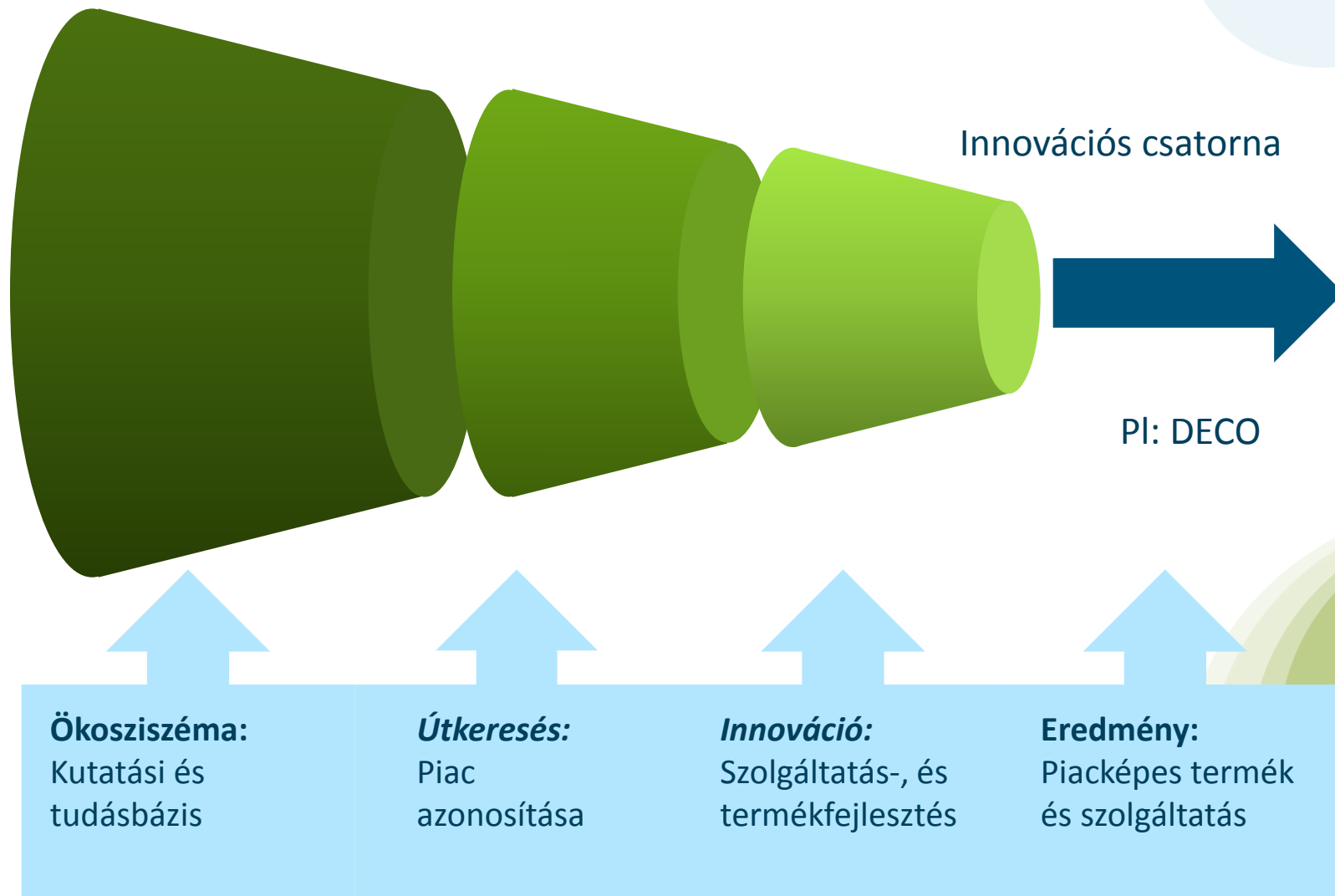


Közszféra





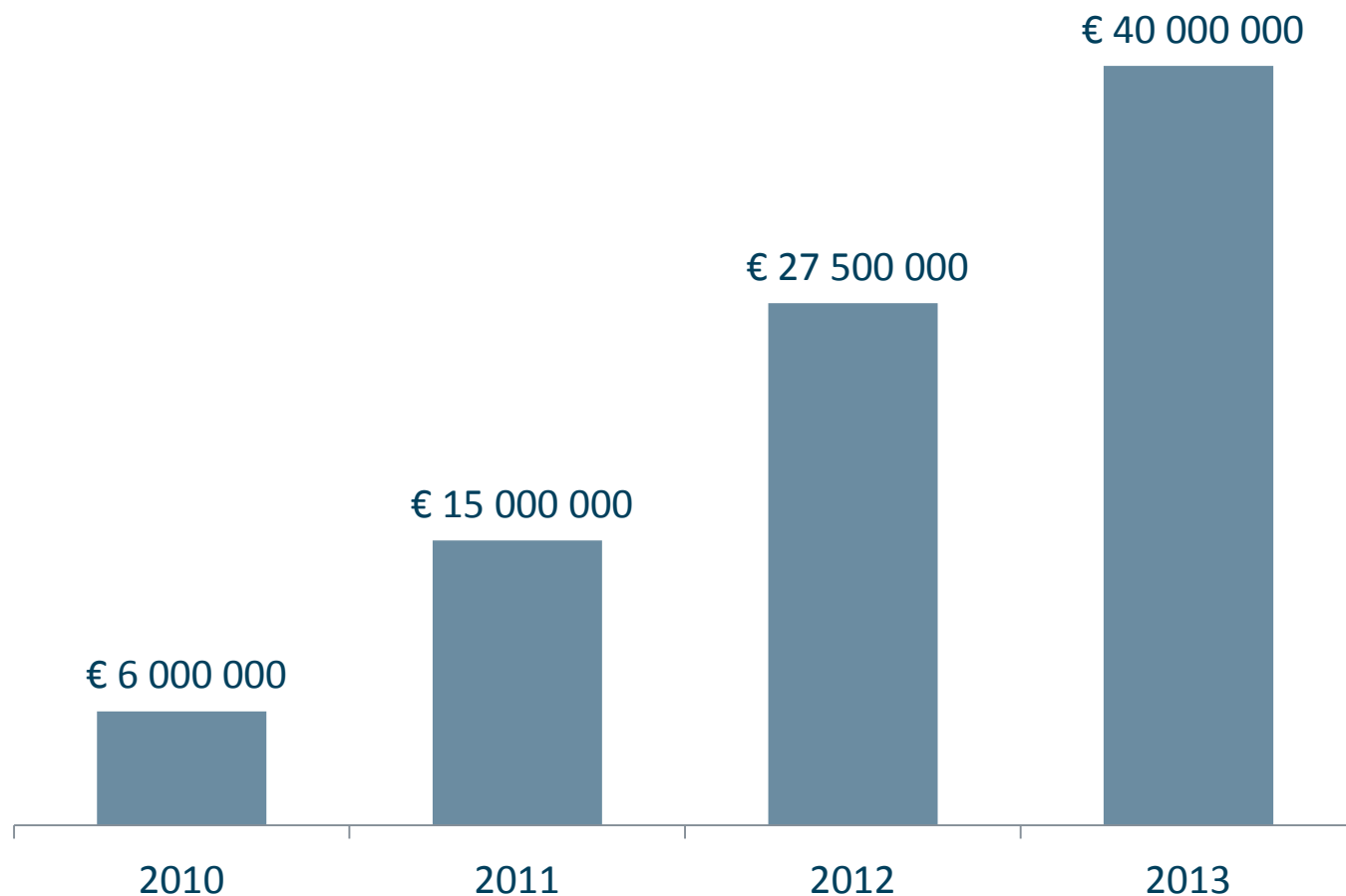
Európa klímainnovációs motorja



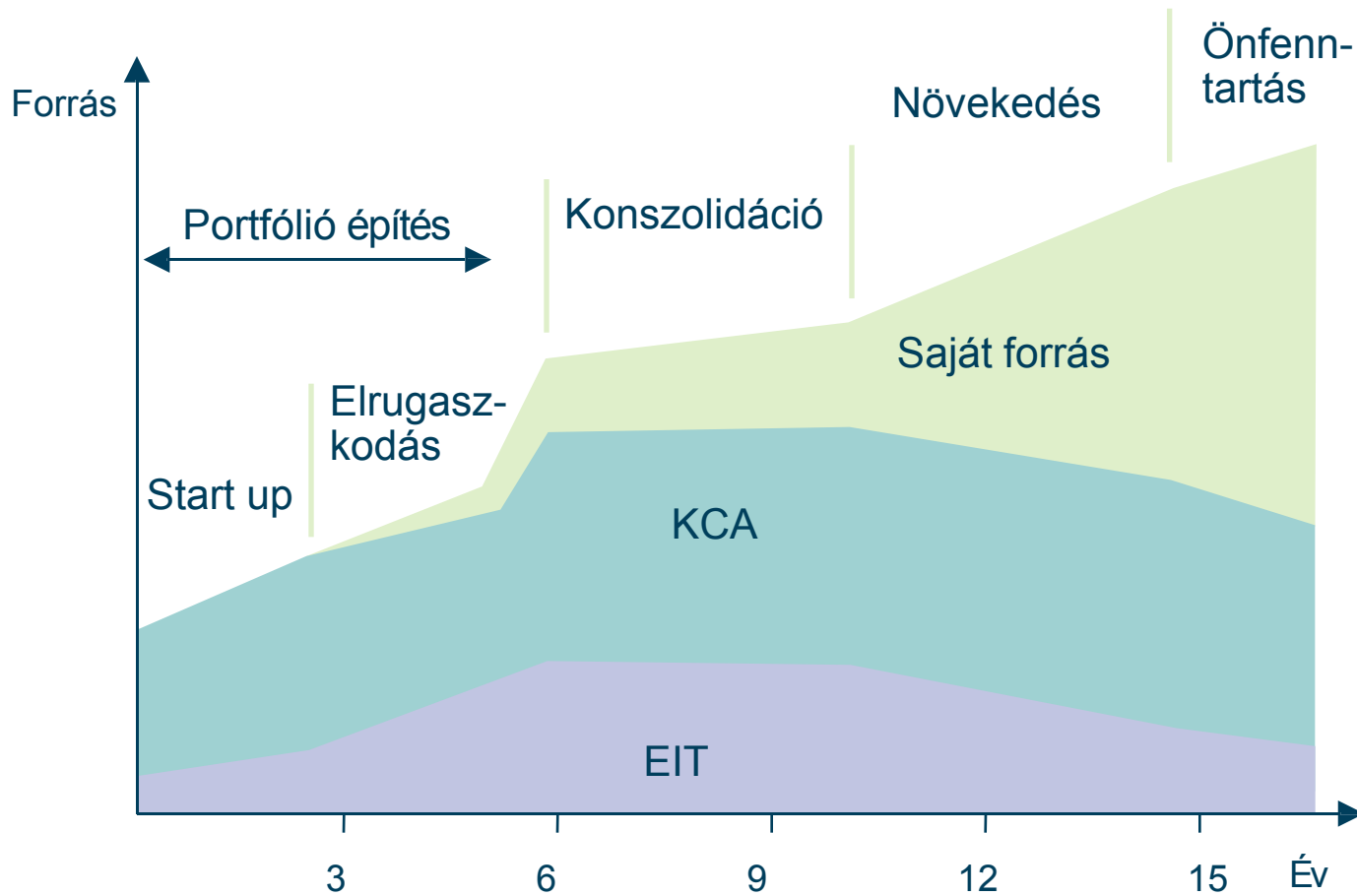
Oktatás > vállalkozók; Vállalkozásfejlesztés > inkubáció és támogatás



Climate-KIC költségvetés



Cél az önnfenntartás





Tevékenységeink....

Innováció

Vállalkozásfejlesztés

Oktatás





Főbb célok - innováció

- ??

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Innovation

Production



Industrial symbiosis

Bioeconomy

Climate services

Land and water engineering for adaptation

Transforming the built environment

Adaptation

Mitigation

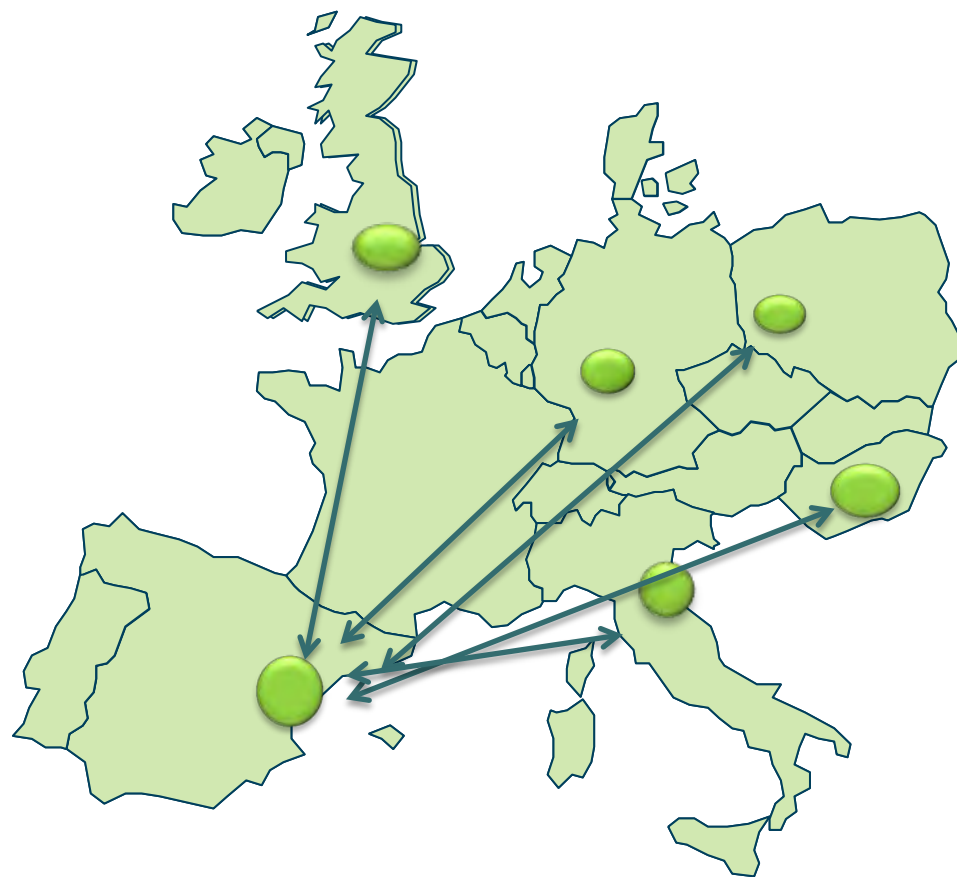
Sustainable city systems

GHG Monitoring

Making transitions happen

Life styles, cities

Pioneers into Practice – régiók professzionális fejlesztése





Főbb célok - oktatás

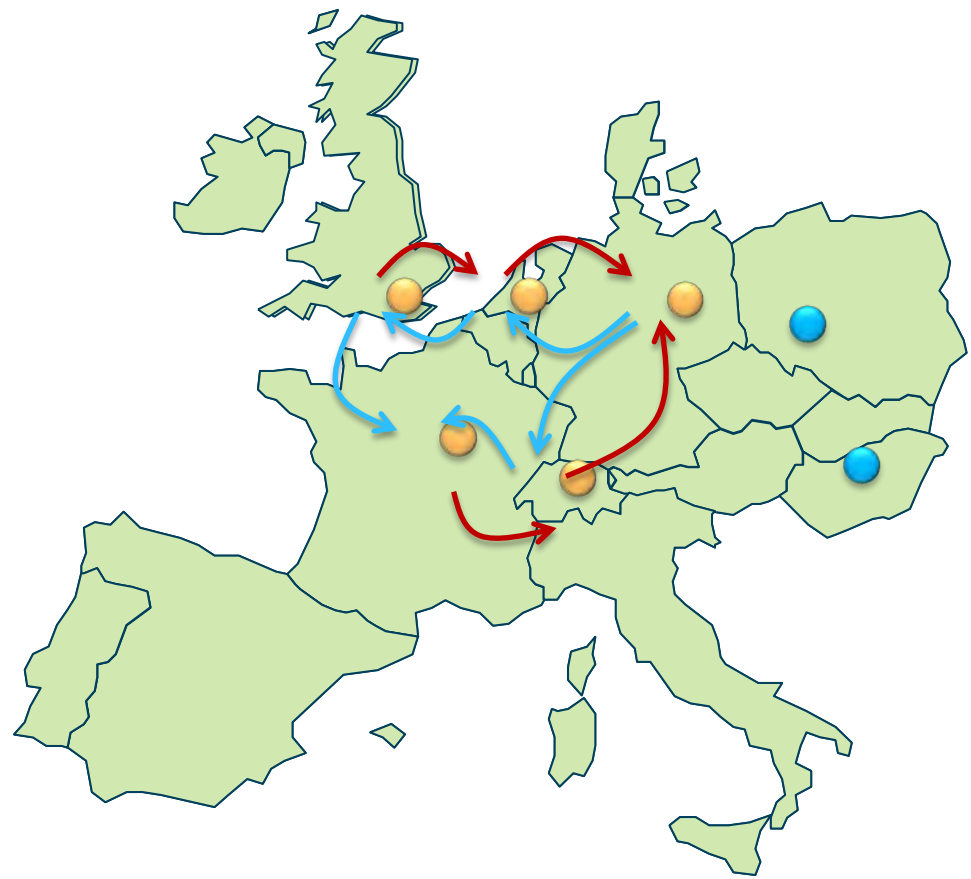
- Innovációs közösség kialakítása
- Felkészíteni a résztvevőket a tudás piramisban való együttműködésre
- Innovációs és vállalkozási kedv ösztönzése

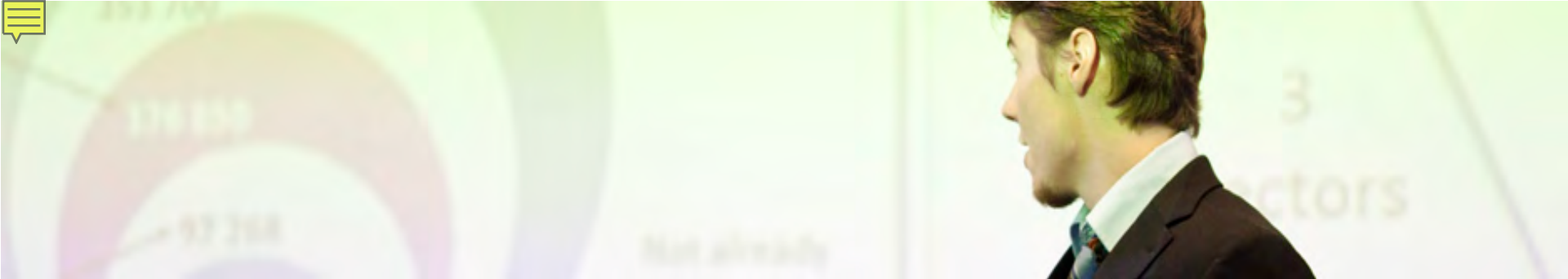


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Fiatal vállalkozóinknak: *The Journey*





Professzionális képzések

Path to Low Carbon Growth

London – november 19-20.

Frankfurt – december 3-4.

Budapest – december 10-11.



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regisztráció: orsolya.barna@negos.hu



Főbb célok - vállalkozásfejlesztés

- Minél több klíma témájú start-up
- Gyorsabb, nemzetközi növekedés elősegítése kezdők és haladók részére



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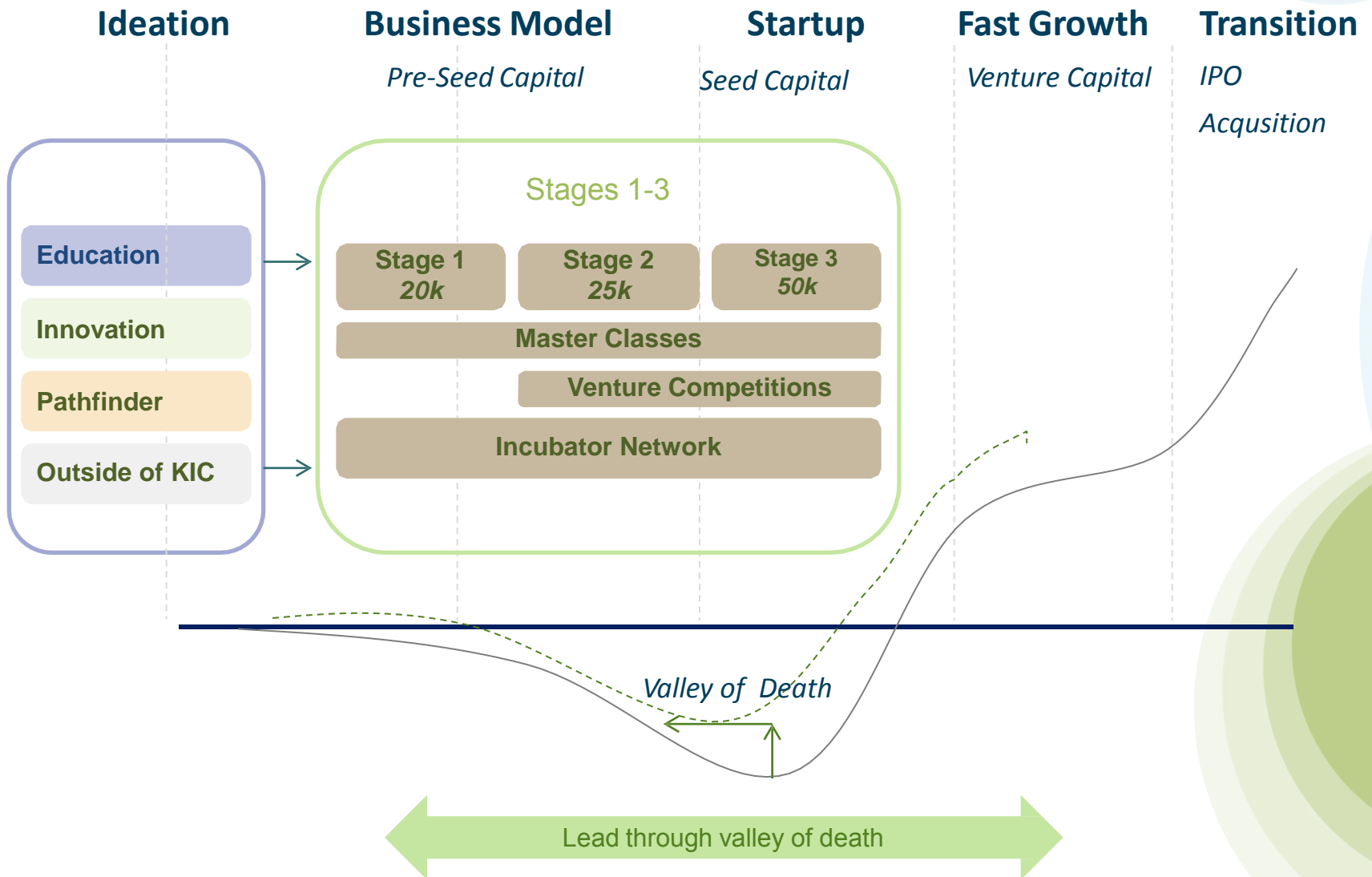
Vállalkozásfejlesztési program 2012



- Inkubáció
- Üzletfejlesztés – alapítás, coaching
- Redezvények, versenyek



Climate-KIC Inkubációs program





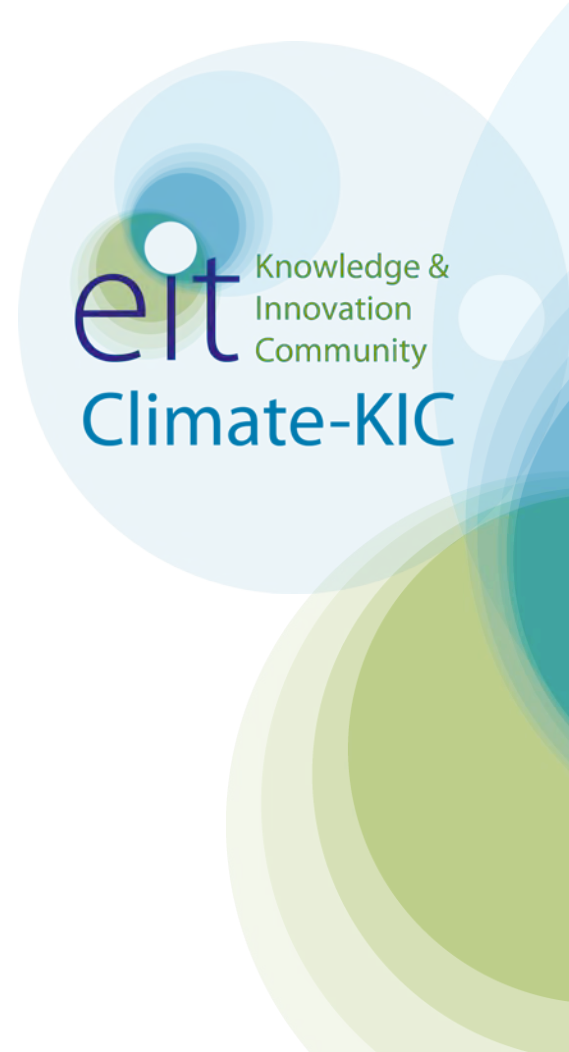
Vállalkozásfejlesztés 2012 HU

Pre-Seed finanszírozás

Díj 20.000 EUR

7 db projekt

Határidő: november vége



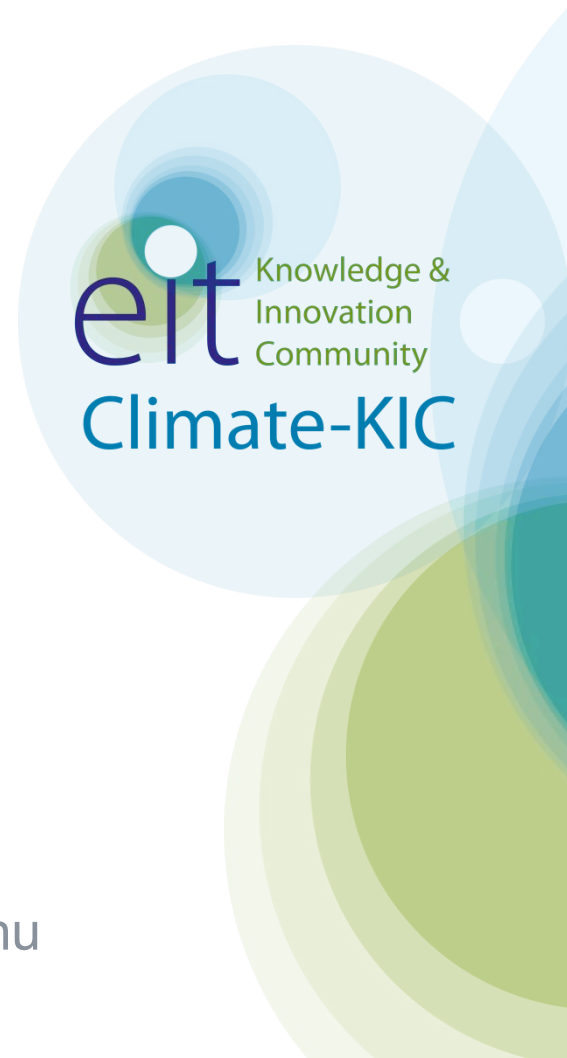
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Vállalkozásfejlesztés 2012 HU

EP tanulmányutak
Bologna, Birmingham, Valencia
8-10 fős csoportok
3 napos látogatás
nov 20 – dec 15

regisztráció: andras.megyeri@seed.hu



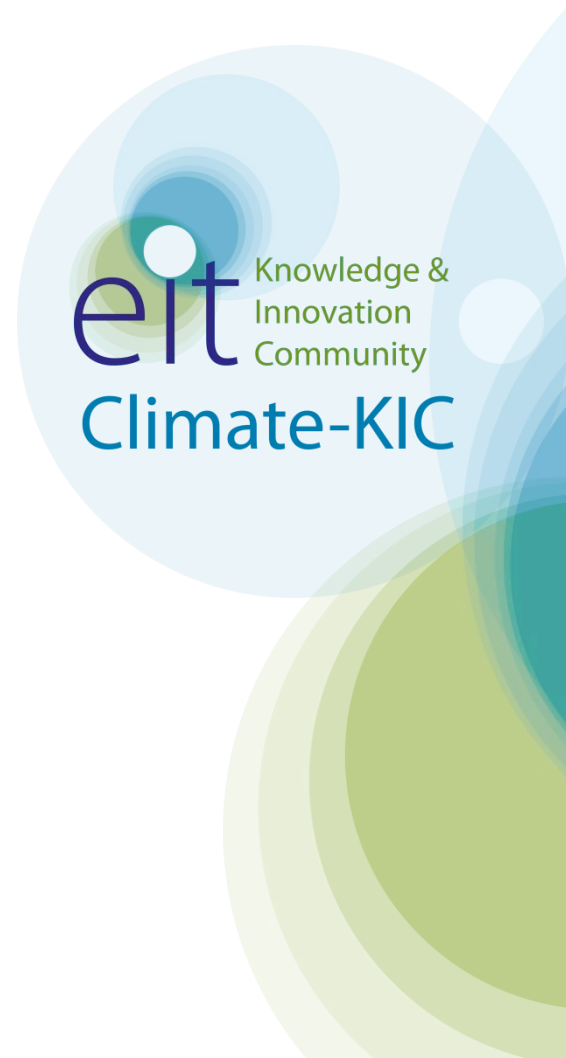


Konferencia

Climate-KIC bemutatkozik

Wroclaw, 2012. Dec 4-5.

300 fő



Regisztráció: krisztina.bedo@negos.hu

A földet nem apáinktól örököltük,
hanem unokáinktól kaptuk kölcsön

Indián közmondás





Köszönöm a figyelmet!



Our young enterprises: Naked Energy – EIT Award 2012



and joint winner of Climate-KIC Venture competition 2011

- **Hybrid solar panel providing electricity and hot water**
- Combined Photo Voltaic and thermal energy system
- PV inside the tube with water flowing through
- PV provides electricity
- Water keeps PV at optimal temperature and provides source of hot water
- **Unprecedented efficiency; cheaper renewable energy**



- Climate-KIC SME partner
- Support from Climate-KIC UK CLC for measuring and characterising performance



Greenhouse and sponsored Start-Ups: DeCo!



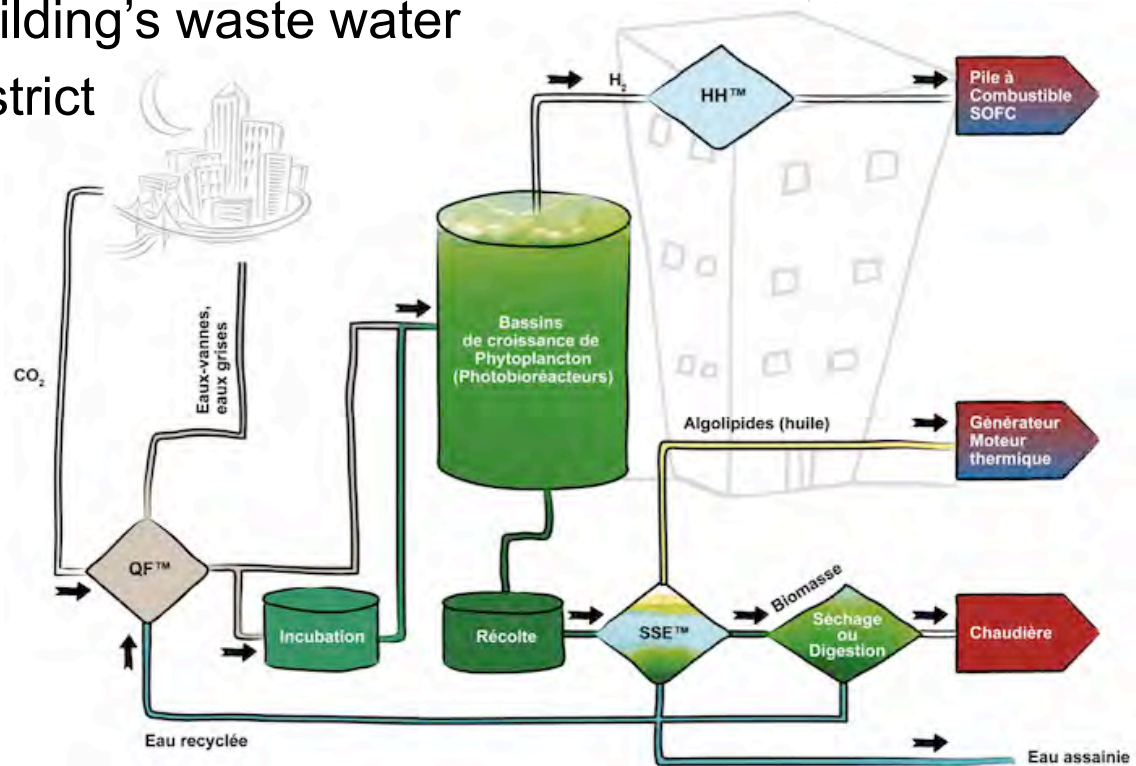
- Decentralised composting for sustainable farming and development
- SEED Award 2010
- Registered as NGO in Ghana

- Decentralised composting service to local farmers (Franchise system in long term)
- Buy local biowaste, convert to organic fertiliser
- Reduces soil degradation and erosion
- Improves food security
- Creates new jobs
- Reduces GHG emissions
- Improves waste management
- Participatory approach



Our young enterprises: Ennesys

- Joint winner of Climate-KIC Venture Competition Prize 2011
- designs and supplies biomass and energy production systems based on highly efficient phytoplankton growth systems, fed with CO₂ and nutrients contained in wastewater
- Creates energy from building's waste water
- Eco-residences, eco-district
- EUR 15,000 prize



The Future...



- KICs are long-term initiatives (up to 15 years)
- ‘Horizon 2020’ - European Commission proposals for Research and Innovation (2014-2020):
 - €2.8bn for EIT
 - 60% of this budget for the 3 existing KICs

Transforming the built environment



Main strategic challenge:

Develop resource-efficient new and retrofit buildings by catalysing system innovation and the development of low carbon substitutes for built material.

Specific challenges:

- Retrofit: Develop innovative technical and economic solutions to refurbish existing building stock, including on a neighbourhood level
- New buildings: Develop and demonstrate innovative and integrative solutions for new buildings

Current Climate-KIC activity: CMA pilot on buildings (UK), N-Demo

Interfaces: Especially with “Making Transitions Happen” as governance of buildings, increased user involvement and dissemination of best practices were also identified as challenges.

Facilitating CLC (interim): Reto Largo, Swiss CLC



Sustainable City Systems



Main strategic challenge:

Support the transition from centralised separate energy, waste and water utilities into decentralised, local and integrated utility systems.

Specific challenges:

- Urban planning: Develop a market for planning and decision support tools aiming at city transitions to low carbon economy
- Integrated utilities: Support the transition to better connected and integrated city services and utilities
- Resource efficiency: Ensure connections between cities and their environment for enhanced resource efficiency



Current Climate-KIC activity: Smart Urban Adapt, Energy Atlas, WE4CC, Smart Urban Water, Blue green Dreams, CMA pilot Metropolitan utilities Dialogue (Berlin), EnerVis

Interfaces: The interface with the “Making Transitions Happen” platform needs to be clarified. Challenges related to mobility and hubs to be also addressed

Facilitating CLC (interim): Aaron Best, German CLC

Making Transitions Happen



Main strategic challenge:

Build a low-carbon culture to engage companies, communities and citizens in the development of a low carbon society, to reduce GHG emissions and connect to global issues related to climate change.

Specific challenges:

- Demonstrator network: Develop a network of demonstrators & living labs that pioneer innovative value chains
- Scale-up: Develop financial tools and models to scale up innovation (e.g. procurement)
- Barrier removal: Identify and remove barriers to innovation



Current Climate-KIC activity: Pioneer Cities, N-Demo, EURBANLAB, CMA pilot on the establishment of a smart procurement network (RIC)

Interfaces: So far mainly with city and built environment platforms, but should expand to other platforms. Challenges related to mobility and hubs to be addressed

Facilitating RIC (interim): Aled Thomas, RIC

Industrial symbiosis (Early stage)

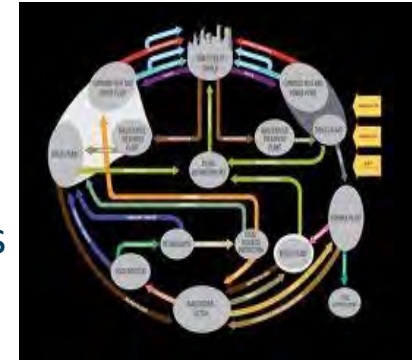


Main strategic challenge:

Increase resource efficiency and turn waste –including food waste and CO₂- into resource.

Specific challenges:

- Valorise underutilized resource flows: Build understanding of the surrounding flows of materials and energy in order to seize opportunities and utilise underutilised natural and industrial flows both within and across established firms and industries.
- Resource efficiency: Develop and valorise tools that optimize resource efficiency in product manufacturing
- CO₂ reuse: Design and bring to market new products from CO₂ reuse



Current Climate-KIC activity: Dream Products, CCR Pathfinder, EURIS

Interfaces: Bio-economy platform, sustainable city systems (city waste etc.)

Other issues: This platform was identified to be of strategic importance for the Climate-KIC but is in a rather early stage due to the heterogeneous set of involved actors and interests.

Facilitating CLC (interim): Aaron Best, German CLC

Main strategic challenge:

Enable mitigation action through GHG measurements, reporting and verification and associated financial tools.

Specific challenges:

- Various scales: through improved measurement, reporting and verification of greenhouse-gas emissions at various scales such as cities, sectors with currently limited access to climate finance such as agriculture, forestry and point sources
- Combinations of methods: Rely on both bottom-up and top-down measurements to achieve optimal solutions for the various applications (in terms of cost and precision)
- Behavioural change: Induce behavioural change through enhanced knowledge of GHG emissions and carbon footprints

Current Climate-KIC activity: CarboCount, Off4Firms

Interfaces: This platform is very cross-cutting in

Facilitating CLC (interim): Corinne Borel, French CLC



Main strategic challenge:

Support the development and adoption of a bio-based economy efficient, closing the loop and producing, polymers, chemicals and biofuels.

Specific challenges:

- Sustainable feedstock production: Develop the sustainable production of feedstock through renewed relations between land and agriculture
- Biorenewable products: Develop and bring to the market biorenewable products from a variety of feedstocks using biorefinery tool
- Resource efficiency: Close loops in agricultural production and move agriculture and food production closer to consumers



Current Climate-KIC activity: ADMIT Biorenewables, CoP in Focus, Microalgae Biorefinery

Interfaces: Clarify the distinction / synergies especially with the platforms on “Land and Water Engineering for Adaptation” and on “Industrial Symbiosis” (e.g. CO₂ reuse).

Facilitating CLC (interim): Richard Templer, UK CLC

Land and Water Engineering



Main strategic challenge:

Support the adaptation of water engineering and agriculture to climate change and link it to enhanced land use and ecosystem services delivery.

Specific challenges:

- Extreme Events: Adapt to rising sea levels and extreme climate events through advanced and innovative land and water engineering
- Water security: Increase water security for agriculture, industry and cities
- Ecosystem services: Develop innovative value chains and markets for ecosystem services



Current Climate-KIC activity: Water2Invest, Agadapt, AgWaterBreed, CMA pilot on buying climate-resilient measures

Interfaces: Especially with climate services, but also with bio-economy

Facilitating CLC (interim): Hero Prins, Dutch CLC

Climate Services



Main strategic challenge:

Increase adaptation capacity and resilience of societies, infrastructure, cities and services with specific emphasis on areas prone to sea level rise.

Specific challenges:

- Solutions for different sectors: Develop markets for various economic sectors on adaptation to climate change
- Climate Information: Develop and ensure relevant use of climate information by society and economy
- Adaptation speed: Reduce time to action by decision makers on adaptation



Current Climate-KIC activity: E3P, OASIS, CACHES

Interfaces: Especially with the platform on “Land and Water Engineering for Adaptation” because climate services provide the knowledge necessary for the latter platform to develop concrete solutions for adaptation.

Facilitating CLC (interim): Richard Templer, UK CLC

Challenge-driven PhDs – multidisciplinary team projects

Singular Projects (today)

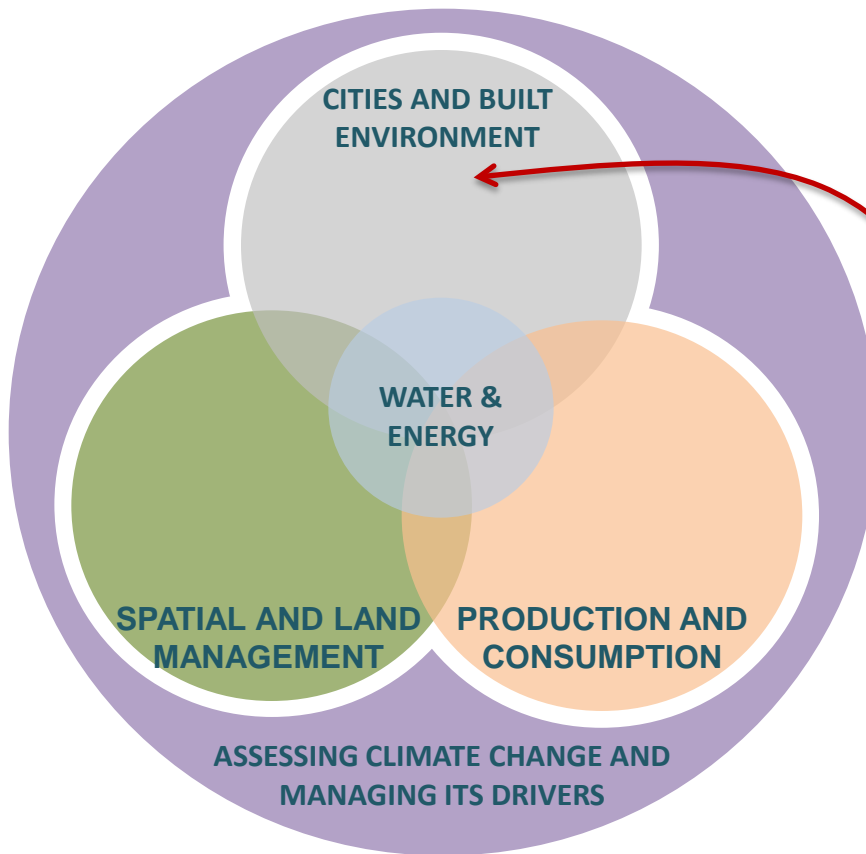
J	Thesis Titles	Thesis Topics
J1 2011		Transformation of urban planning and construction in changing climate
J1 2011		Innovation management
J2 2011		Projecting, forecasting and managing climate extremes
J1 2011		
J2 2011		Designing a ZERO-Co2 data center which provides sustainable IT services at competitive prices
J2 2011		Climate change impacts and adaptation measures for Hyderabad (India) as a megacity of tomorrow

Coordinated Projects (2012 to 13)

Example: Low-C heating and cooling in buildings

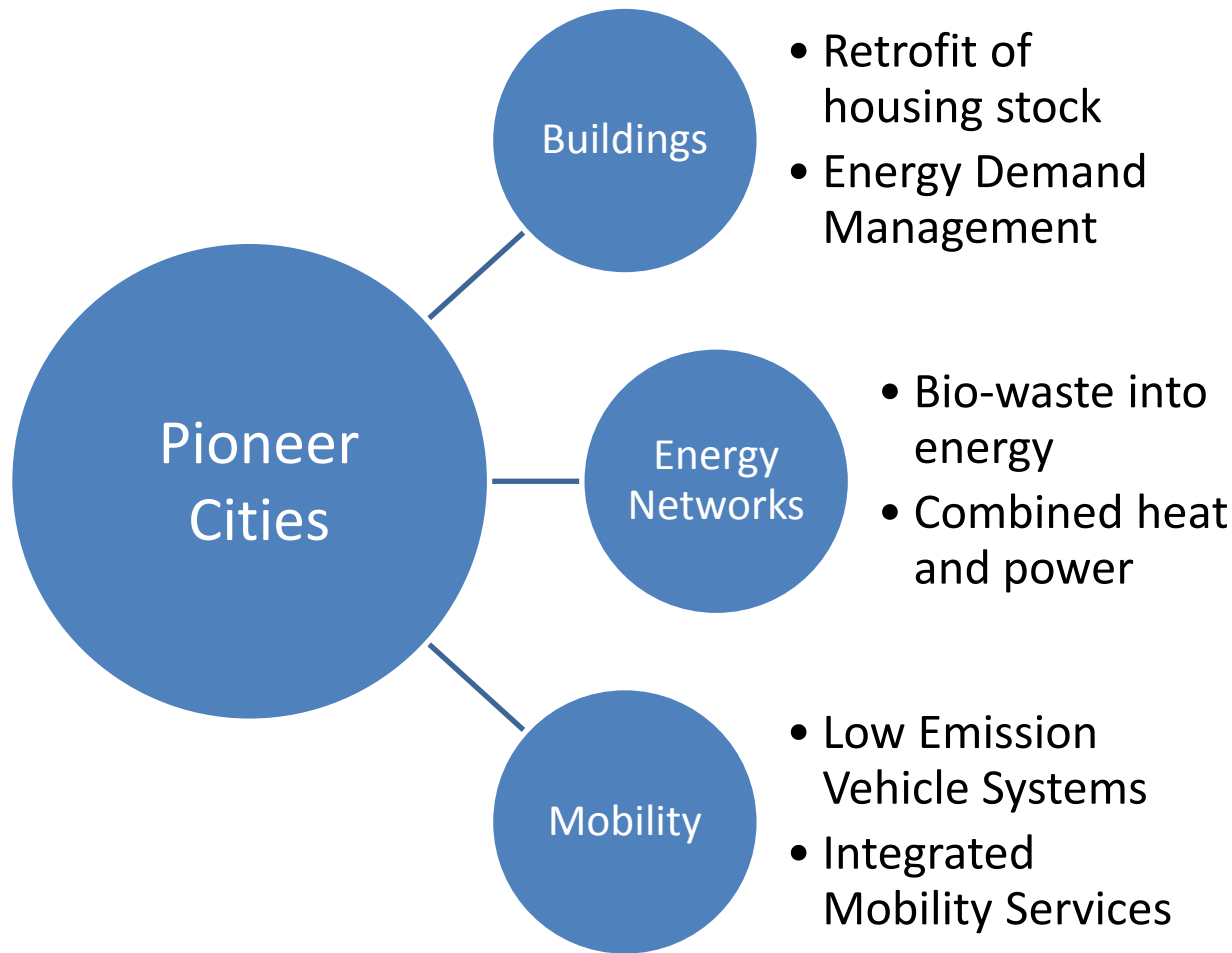
Thesis topics:

1. Sub soil heat storage study (geology)
2. Water piping for heat transfer (mechanical engineering)
3. Heat load sharing models (systems engineering)
4. Economic modelling of community systems (socio-economics)





Pioneer Cities – led by the KIC regions



Outcomes = New Place-based Business Models

Cities:

- Birmingham
- Frankfurt
- Bologna / Modena
- Budapest
- Wroclaw
- Castellon / Valencia

Innovations – new financing models, forms of user engagement

The market place and climate market acceleration

Community tool

- Member profiles
- Substantive issues
- Working groups

Climate-KIC Radar

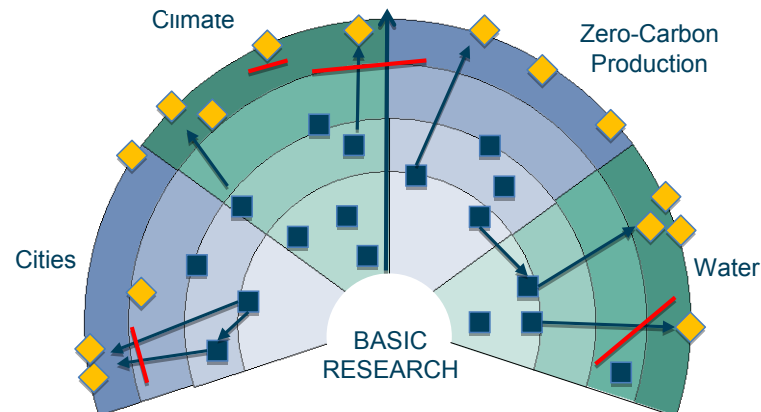
- Overview existing activities/strengths
- Innovation opportunities

Market accelerator

- Demand identification
- Supply identification
- Interface / Brokerage



- Bringing partners together around “demand side” challenges
- Accelerating market delivery via the pipeline



- Demonstration cities project
- Leadership: NL, UK, ES
- With the RIC regions’ ‘Pioneer Cities’