

# Innováció és fenntarthatóság – a Climate-KIC eszközei

53. Közgazdász-vándorgyűlés  
Miskolc, 2015. szeptember 4.

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# Változás az élet része



Minden változik...

Minden alakul...

Updated and revised 2006 from National Geographic's

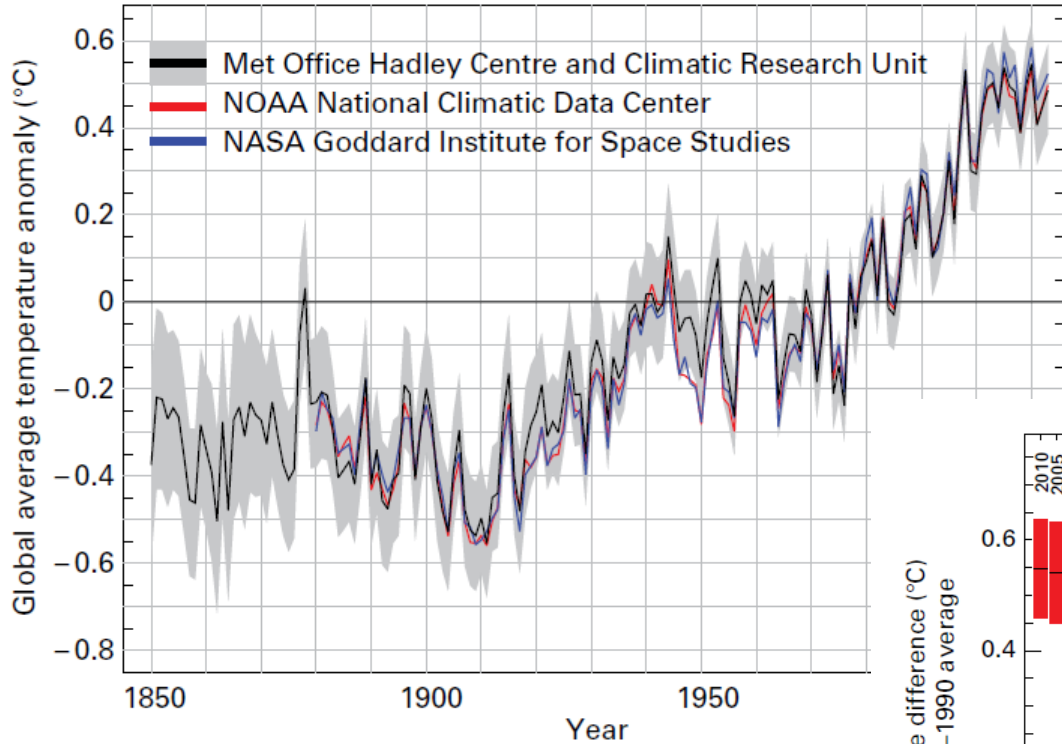
## THE EVOLUTION OF WHALES

With additional comments, by early whale expert and paleontologists Dr. J.G.M. Thewissen and Dr. Phil Gingerich.

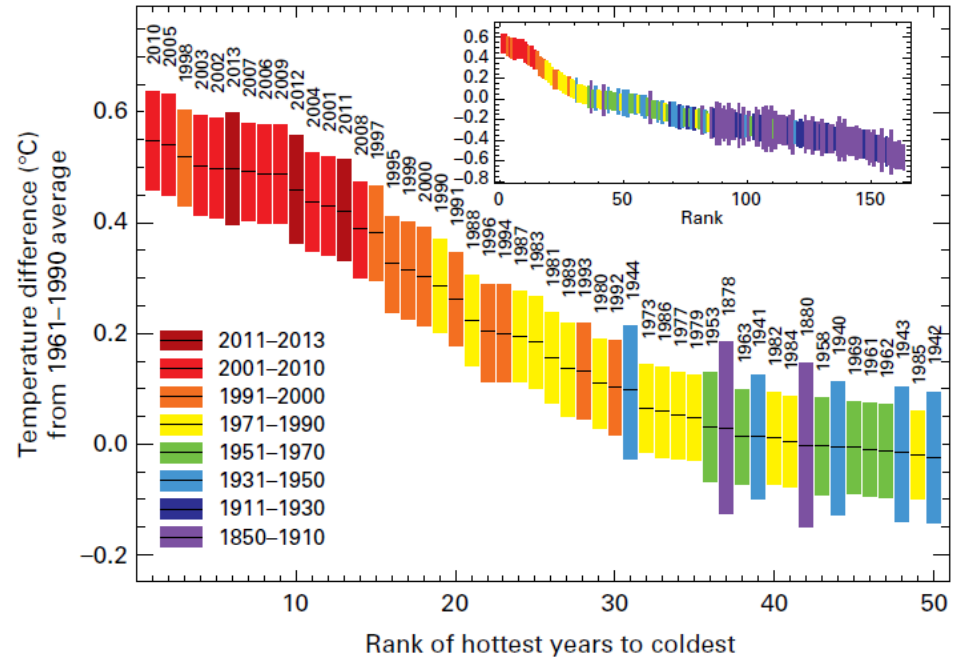
Overview of whale origins, and illustrations based on fossil progression in transitional whales and dolphins.

[www.edwardtbabinski.us/whales/evolution\\_of\\_whales](http://www.edwardtbabinski.us/whales/evolution_of_whales)

# Az éghajlat is változik...



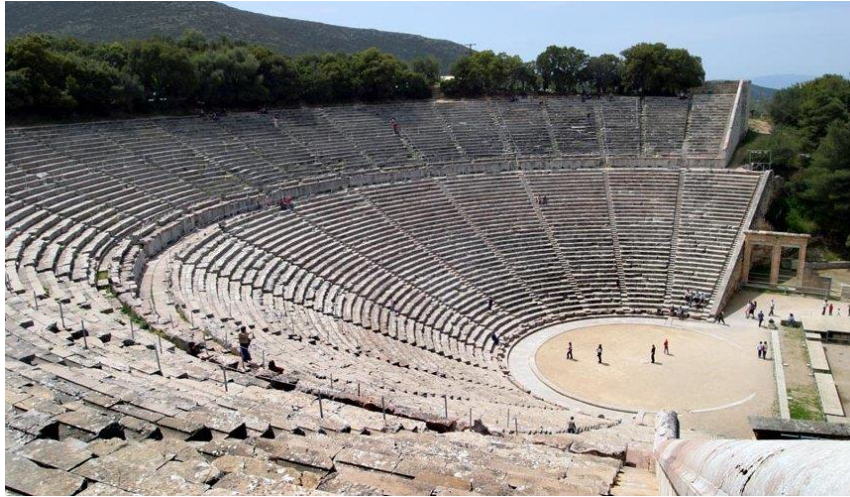
Source: WMO statement on the status of the global climate in 2013



...és a piacok is!



# De mindig vannak túlélők!



## Az emberek még mindig járnak színházba...

## ...és továbbra is vásárolnak bakelit lemezeket!

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## Vinyl Album Sales Hit Historic High in 2014, Again

By Keith Caulfield | December 31, 2014 6:25 PM EST



On the charts

## Kulcsszó #1: NICHE

Dictionary

<sup>1</sup>niche 

SAVE



POPULARITY



*noun* | \ˈnich also ˈnēsh or ˈnish\

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- : a job, activity, etc., that is very suitable for someone
- : the situation in which a business's products or services can succeed by being sold to a particular kind or group of people
- : an environment that has all the things that a particular plant or animal needs in order to live

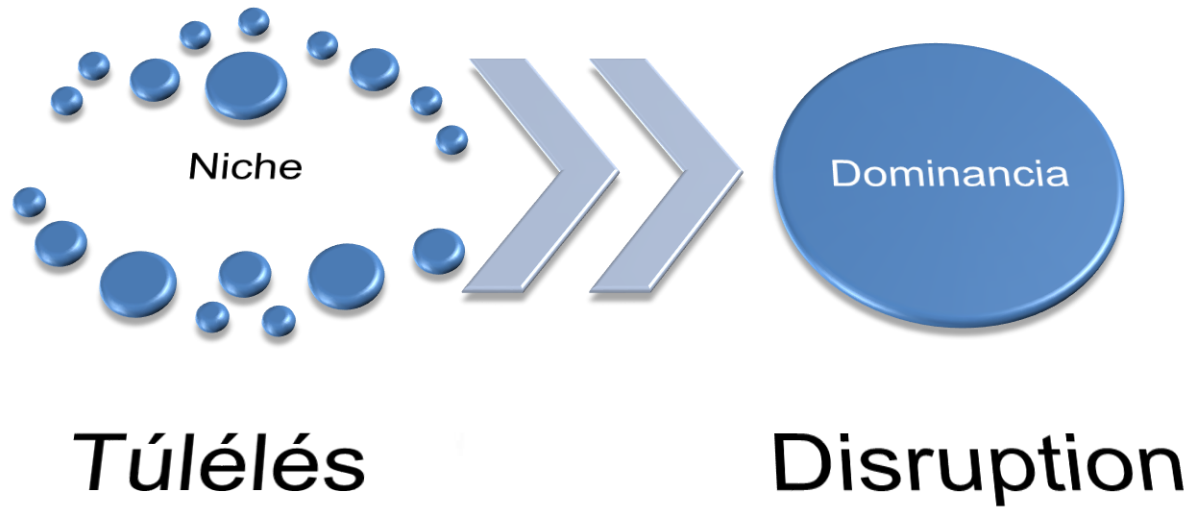


És nem csak a régit védi

...hanem teret ad az újnak és fenntarthatónak!



Tesla Motors | Premium Electric Vehicles  
[www.teslamotors.com/](http://www.teslamotors.com/)

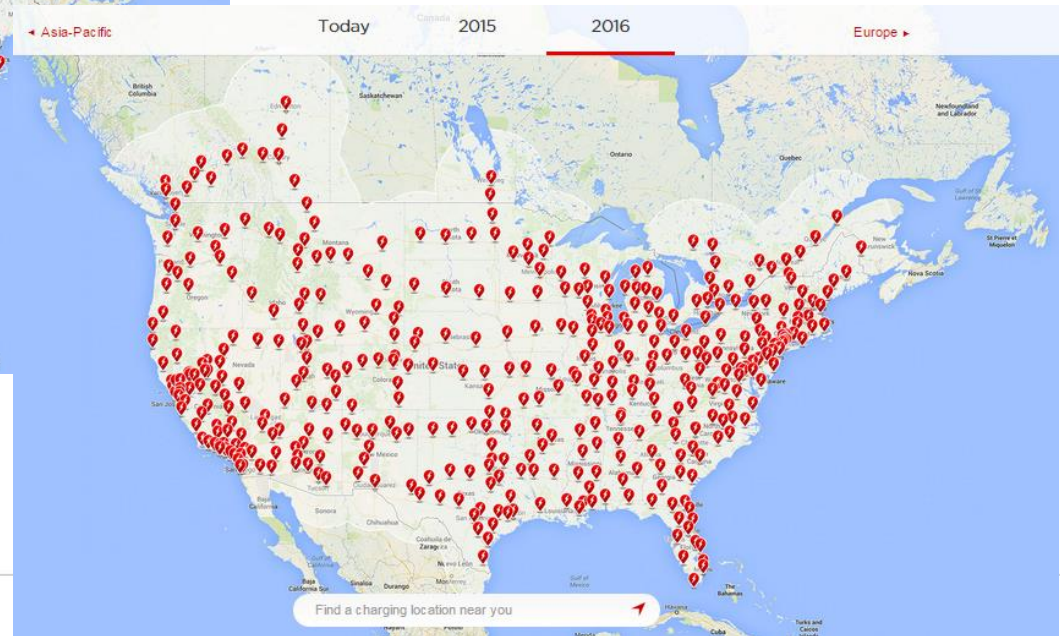
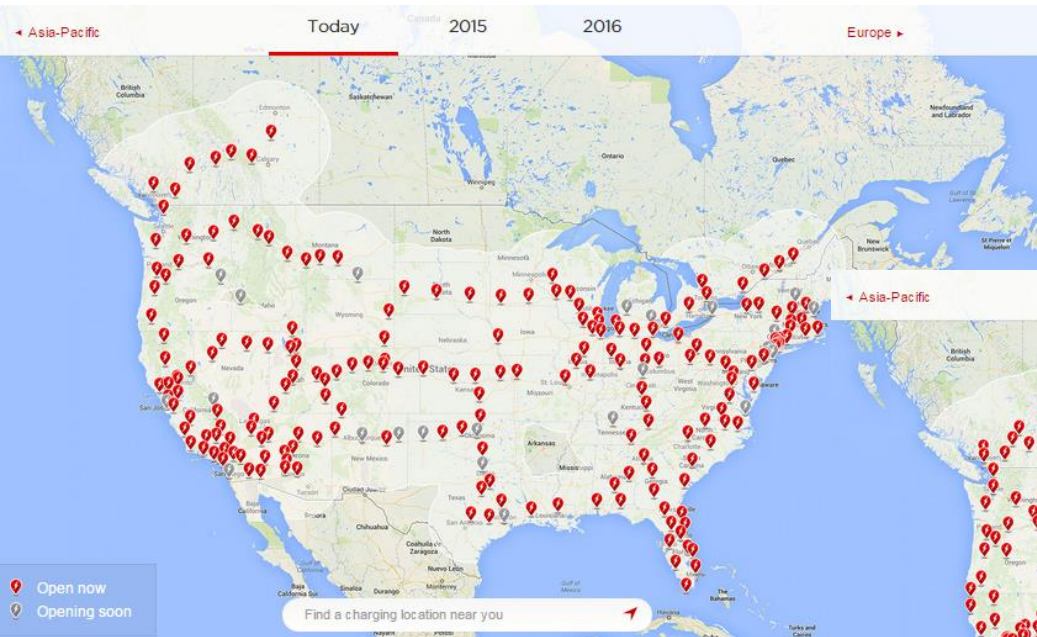







# Tesla megint...

*„[The CEO] thinks Tesla could be a big disrupter if we're not careful. History is littered with big companies that ignored innovation that was coming their way because you didn't know where you could be disrupted.”*

GM spokesperson



# Egyéb példák

Climate-KIC téma	Potenciális áttörések	Potenciális újítók
Fenntartható városi rendszerek	PV, EV, M2M, smart solutions, big data	
Fenntartható területhasználat	Drónok, GIS, precíziós technikák, aquaponics, alga, műtrágya alternatívák	
Fenntartható termelés	3D nyomtatás, M2M, ipari szimbiózis, biomassza alapú termékek, sharing economy	
Klíma finanszírozás	Szolgáltatás nem tulajdonlás, crowdfunding	

## Kulcsszó #2: REGIME

Dictionary

# regime

SAVE



POPULARITY



*noun* | re-gime | \rā-'zhēm, ri- also ri-'jēm\

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: a form of government : a particular government

: a system of management





## Traditional Power Grids

### Large Power Plants

Economies of scale, fossil fuels

### Stable Supply

Large plants have very little fluctuation

### Demand Driven

Electricity supply must react to changes in demand

### Analog Coupling

Load detects fluctuations in supply through changes in frequency



## Future Smart Grids

### Many Small Plants

Renewable energies, microgrids

### Fluctuating Supply

e.g. influenced by weather conditions (wind)

### Demand-Side-Integration

Load changed depending on available supply

### Digital Coupling

Supply and demand integrated using digital communication

# Hagyományos üzleti modellek nem működnek



The Economist

World politics

Business & finance

Economics

Science & technology

Culture

European utilities

## How to lose half a trillion euros

Europe's electricity providers face an existential threat

Oct 12th 2013 | From the print edition



8.2k



1,047



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## Citibank: Utilities are dinosaurs waiting to die

Jesse Berst

Thursday, October 10, 2013 - 12:45am

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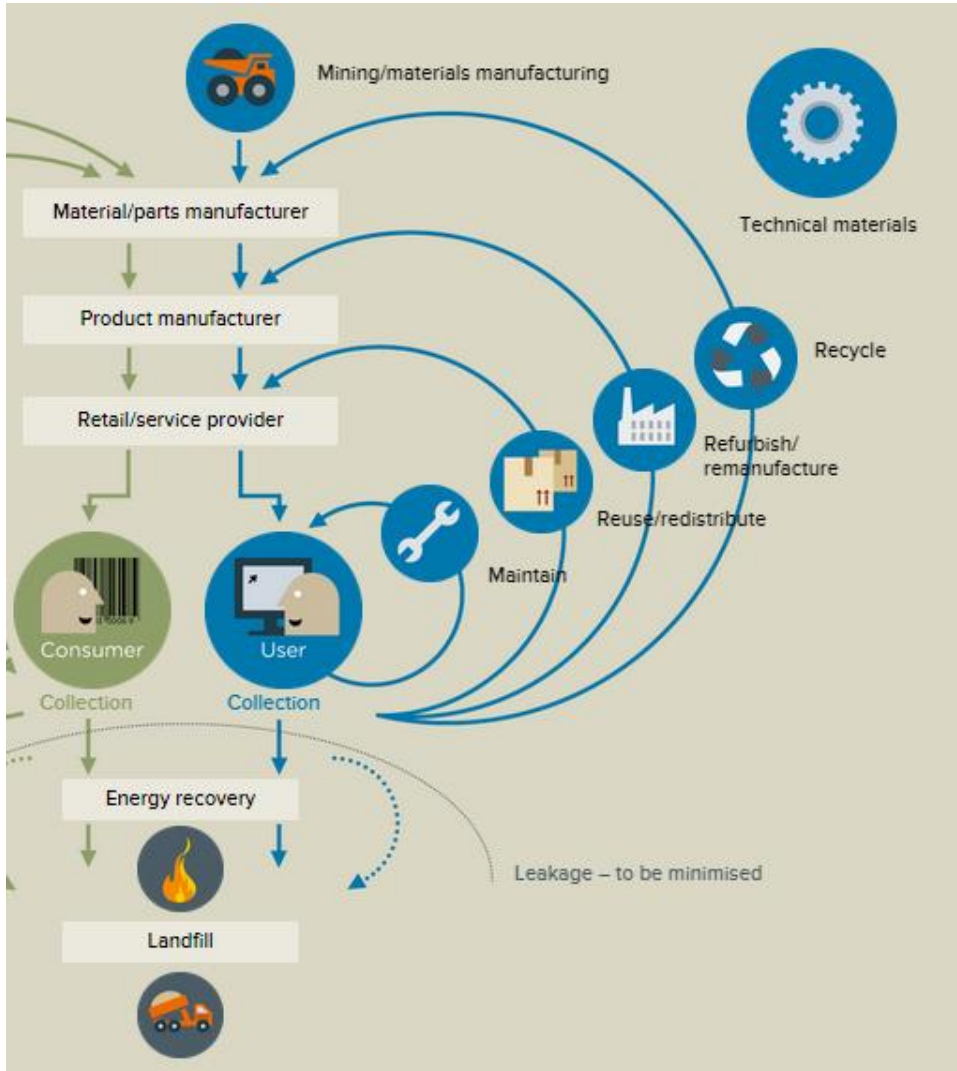


# Hagyományos üzleti modellek nem működnek



## Analysis of innovation policies and barriers to innovation in the Climate-KIC regions

Industrial symbiosis in RIC Central Hungary



## Az információ szabadsága – megszűnik a hagyományos értéklánc:

*„The world’s largest taxi firm, Uber, owns no cars. The world’s most popular media company, Facebook, creates no content. The world’s most valuable retailer, Alibaba, carries no stock. And the world’s largest accommodation provider, Airbnb, owns no property. „*

[http://www.independent.co.uk/news/business/comment/hamish-mcrae/  
facebook-airbnb-uber-and-the-unstoppable-rise-of-the-content-nongenerators-10227207.html](http://www.independent.co.uk/news/business/comment/hamish-mcrae/facebook-airbnb-uber-and-the-unstoppable-rise-of-the-content-nongenerators-10227207.html)

## A gyártás szabadsága – 3D nyomtatás?





## Kulcsszó #3: LANDSCAPE

Dictionary

<sup>1</sup>landscape 

SAVE



POPULARITY



*noun*, | *land-scape often attributive*  
| \ˈlan(d)-skāp\

 Cite!

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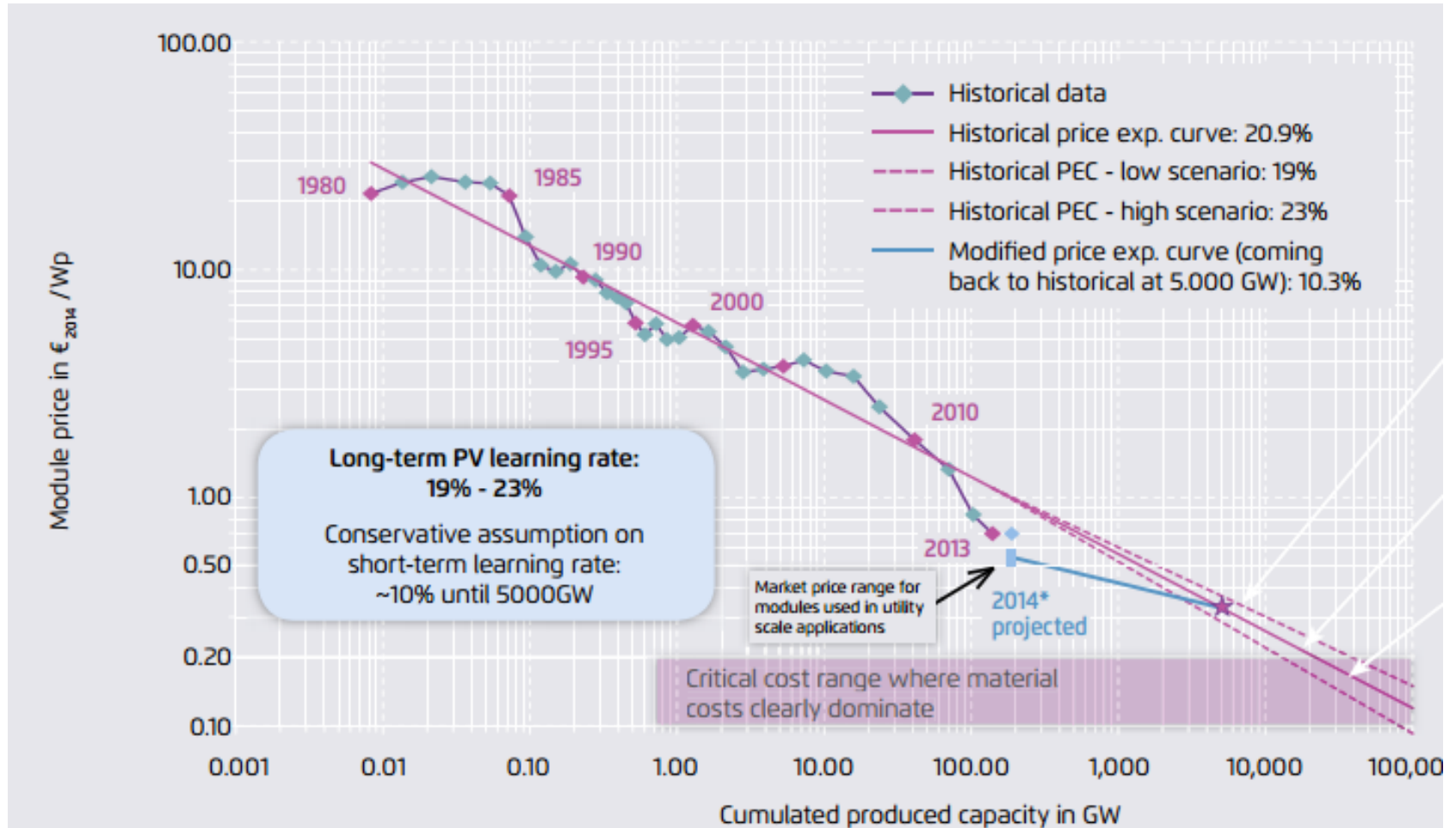
 Tweet

- : a picture that shows a natural scene of land or the countryside
- : an area of land that has a particular quality or appearance
- : a particular area of activity





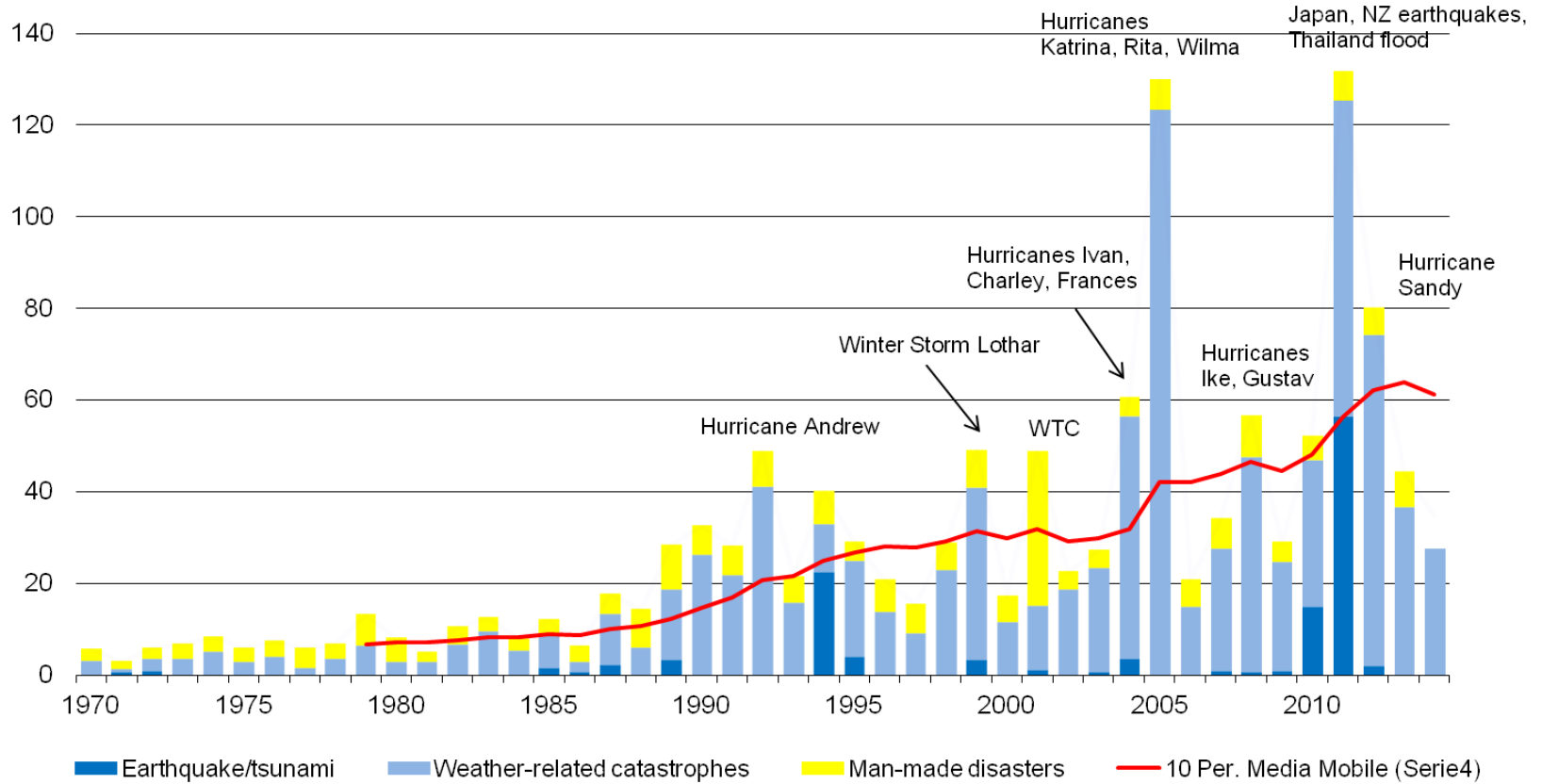
# Hajtóerők



Source:  
[http://www.agora-energiewende.org/fileadmin/downloads/publikationen/Studien/PV\\_Cost\\_2050/AgoraEnergiewende\\_Current\\_and\\_Future\\_Cost\\_of\\_PV\\_Feb2015\\_web.pdf](http://www.agora-energiewende.org/fileadmin/downloads/publikationen/Studien/PV_Cost_2050/AgoraEnergiewende_Current_and_Future_Cost_of_PV_Feb2015_web.pdf)

# Hajtóerők

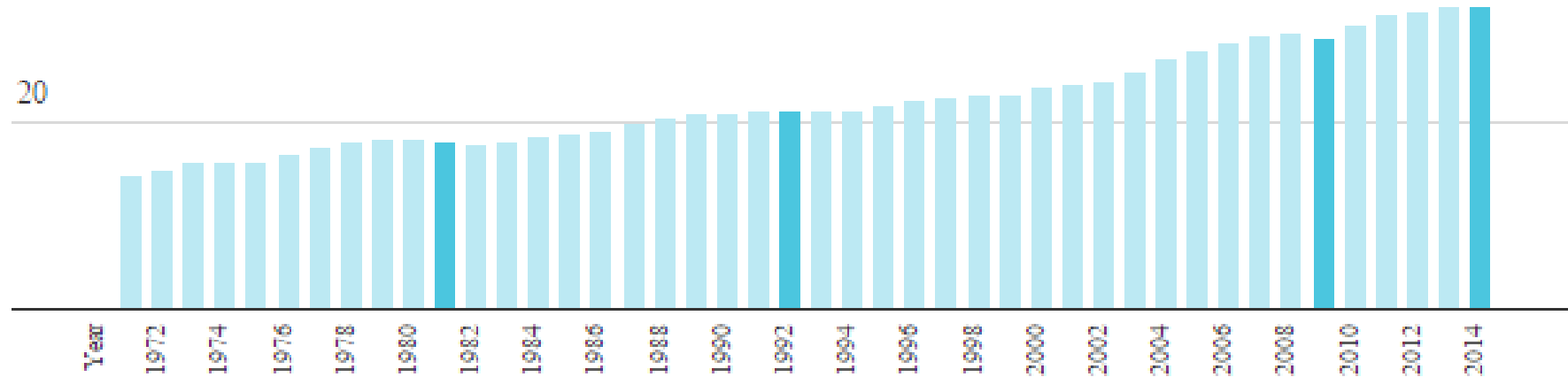
in USD bn,  
at 2014 prices



Source: Swiss Re

## Global CO2 emissions 1971-2014 from energy use (billion tonnes CO2)

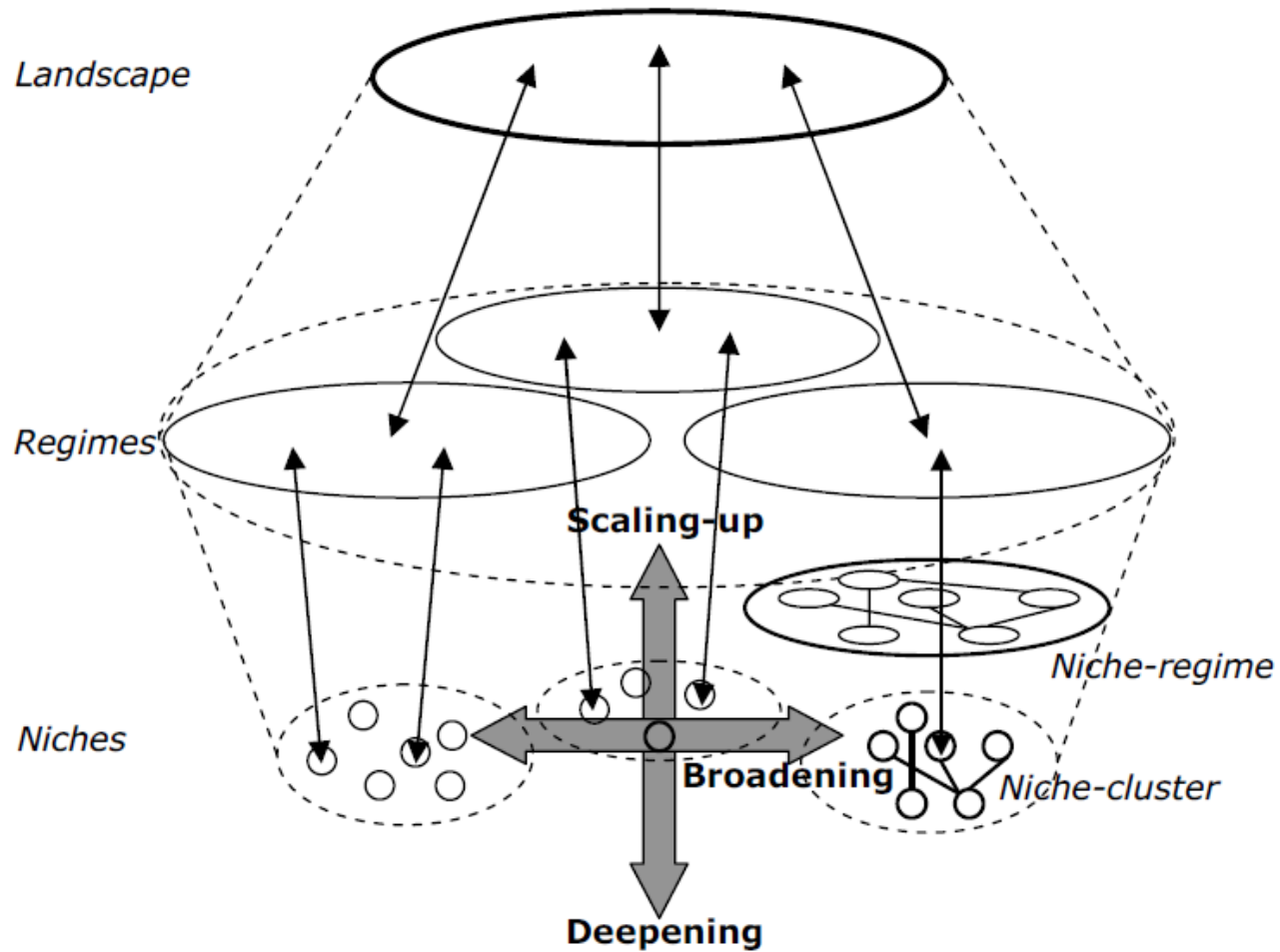
Emissions stalled in 2014 for the first time without a strict economic recession, such as the global financial crisis in 2009



SOURCE: IEA  
GET THE DATA EMBED



# Transition Thinking



# Transition Thinking ajánlat



Szint	Ipar	Akadémia	Közszféra
Landscape	Mi a jövőkép? <b>Vízió alkotás és backcasting.</b> Kurzusok, <b>szakértői csere programok</b> – az átmenet megértésére és kezelésére.		
Regime	Hogy válhatsz korai nyertessé? <b>Üzleti modell fejlesztés</b> és intrapreneur gondolkodás.	Out of the box – hogyan változhat tőlem az üzletvitel?	Innovációt engedő és támogató keretrendszer.
Niche	Piackutatás – konkurensok és újítók megtalálása – akár nyílt innovációs folyamatban. Challenge competitions.	Vidd piacra a terméket a <b>helyes üzleti modellel</b> – spin-off indítás.	

# Landscape: Carbon Calculator

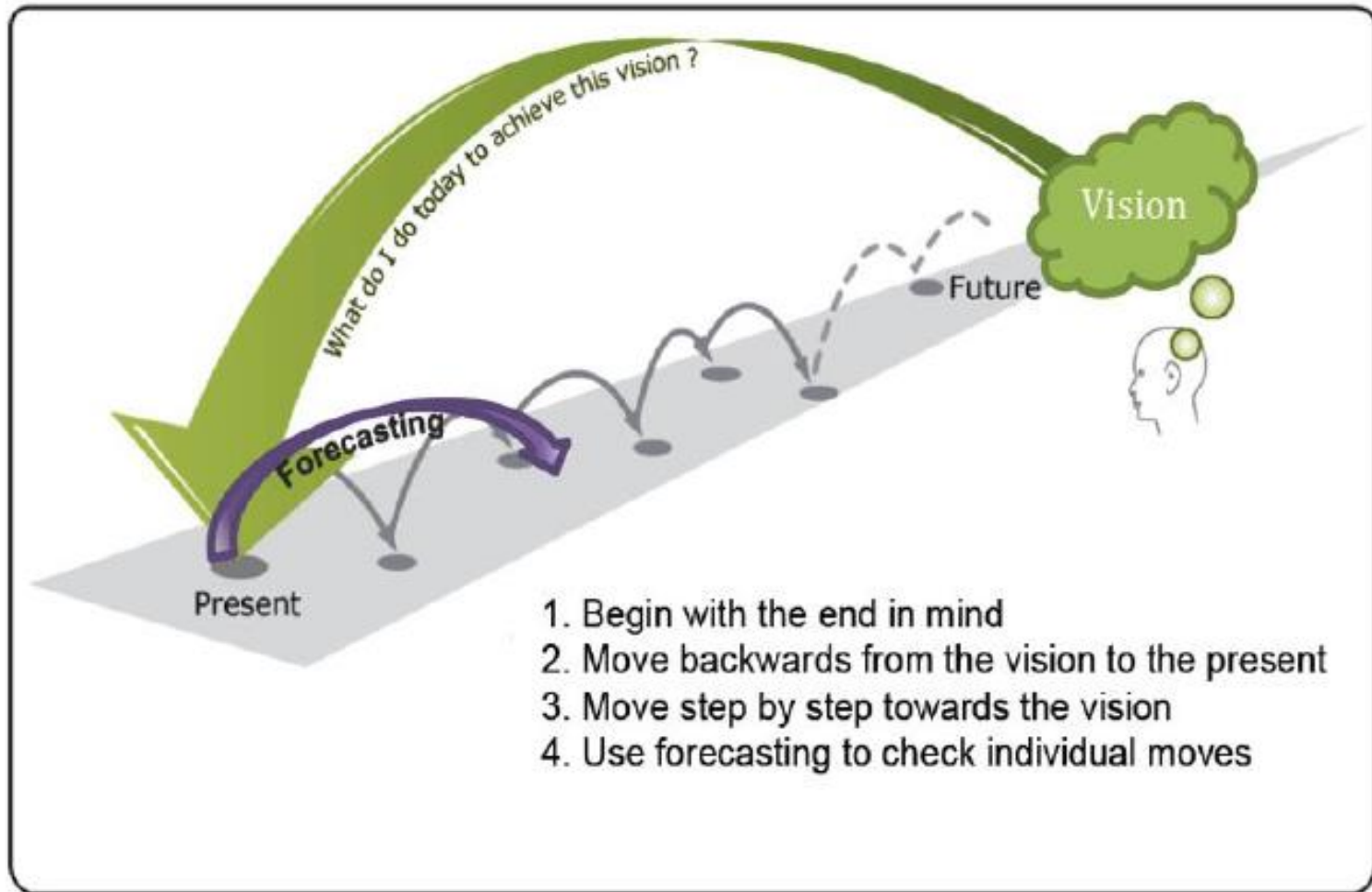
- Excel fájl alapú, szektoriális, egyensúly alapú, IPCC kompatibilis modell
- UK Department of Energy and Climate Change (DECC) fejlesztette ki
- Cél: egyszerű, mindenki által érthető inputok és forgatókönyvek kialakítása
- Eredmény: energia és kibocsátás pályák, költségbecslés
- Három szint:
  - Modellezői: Excel fájl
  - Szakértői: Online tool 1
  - Laikus: Online tool 2
- Eddig: nemzetgazdaság szinten, de város vagy vállalat szinten miért ne?

Global calculator <http://tool.globalcalculator.org/>



DECC My2050 <http://my2050.decc.gov.uk/>

# Landscape: backcasting



# Mobility: Pioneers-into-Practice

- Understand the main systemic challenges and support the development of potential solutions
- Develop a mix of interdisciplinary know-how and managerial capability among practitioners
- Promote interaction of existing front-runners and future project leaders
- Maximise the benefits of the transition for local places

**Move out of your comfort zone with a start of 2x1 months  
Practice Transition Thinking in real cases and deliver impact**



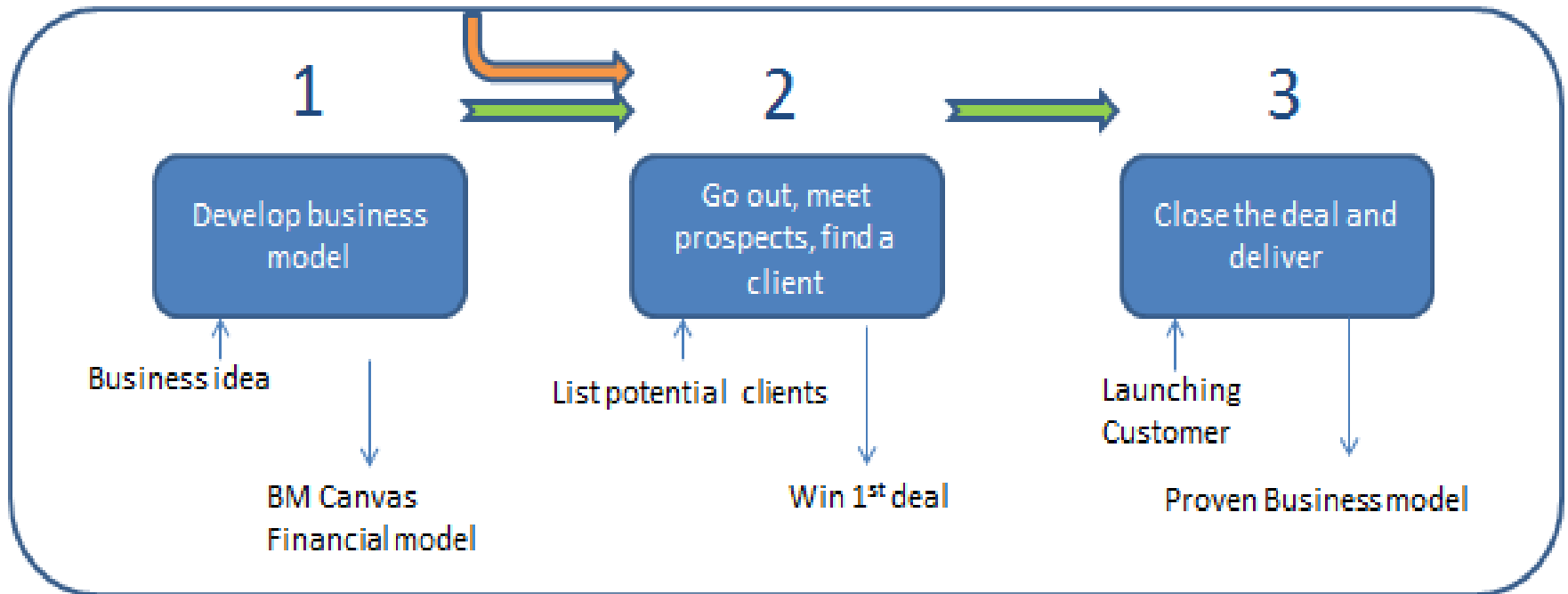






## Start-up development in 3 stages:

- Stage 1: Development of an initial business plan and financial model
- Stage 2: Verifying hypothesis and meeting clients
- Stage 3: Investor readiness





**We offer transition management, project planning, knowledge transfer and management services for all development phases from ideation to implementation. Main areas of interest:**

- **Resource efficiency**
- **Industrial symbiosis**
- **Bioeconomy**

Main activity is knowledge brokerage to companies including challenge/gap analysis, technology selection, as well as full project, innovation and finance management.



# Climate Innovation Community



- ◆ Receive the latest news and results in climate innovation
- ◆ Meet other people interested in the same topic – regular CliMates events
- ◆ Expand your knowledge about climate change and entrepreneurship
- ◆ Learn first-hand about our events
- ◆ Find partners to implement your business ideas
- ◆ Extend your professional network

Join our regional community at [www.klimainnovacio.hu](http://www.klimainnovacio.hu)

In partnership with

Students Innovators Businesses Public bodies NGOs

eit  
Knowledge & Innovation  
Community  
Climate-KIC

KIK  
KLIMAINNOVÁCIÓS  
KÖZÖSSÉG

**JOIN THE CLIMATE INNOVATION COMMUNITY!**



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**Climate-KIC Central Hungary RIC**

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