

Pleasures and hardships of the structural funds realization *the CzechGlobe experience*

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OP Výzkum a vývoj
pro inovace



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CzechGlobe

Basic information:

Research infrastructure

Spatially distributed infrastructure

Total financial amount: 30M €

CzechGlobe - change is a chalange

CzechGlobe

Changing Environment in Changing World

Environment: system composes form natural, artificial and social component of material world.

Changing world: changes and development of the planet Earth

International dimensions and milestones of the CzechGlobe, which can be regarded as a „CHILD“ of EU research programmes



1992 – EPOCH EU 4. FW – the first full participation on GCC research „OTC“

1995 – ECOCRAFT EU 5. FW – enhanced CO₂ - „Lamella domus spheres“

1996 – EUROFLUX EU 5. FW – first „eddy covariance“ technique in East Europe

1997 – CARBOMONT EU 5. FW – carbon budget of mountain areas

1998 – MERCI EU 5. FW – European infrastructure: Carbon physiology of forest trees

2003 – IP CARBOEUROPE EU 6. FW – Carbon and GHG budget

2008 –ESFRI EU 7. FW – European infrastructure ICOS, EUFAR and ANAEE

Interconnection of the CzechGlobe to ESFRI projects

CzechGlobe - **CORE INSTITUTION** of the ESFRI infrastructure ICOS

ESFRI infrastructure **ICOS**: European infrastructure for observation and research on the Carbon cycle

Integrated Carbon Observation System



CzechGlobe – **CORE INSTITUTION** of the ESFRI infrastructure ANAEE

ESFRI infrastructure **ANAEE**: pan-European infrastructure of airborne carriers

ANALysis and Experimentaion on Ecosystems



CzechGlobe **INVESTIGATOR - MEMBER** of the ESFRI infrastructure EUFAR

ESFRI infrastructure **EUFAR**: pan-European infrastructure airborne carriers used in RS

European Fleet of Airborne Research



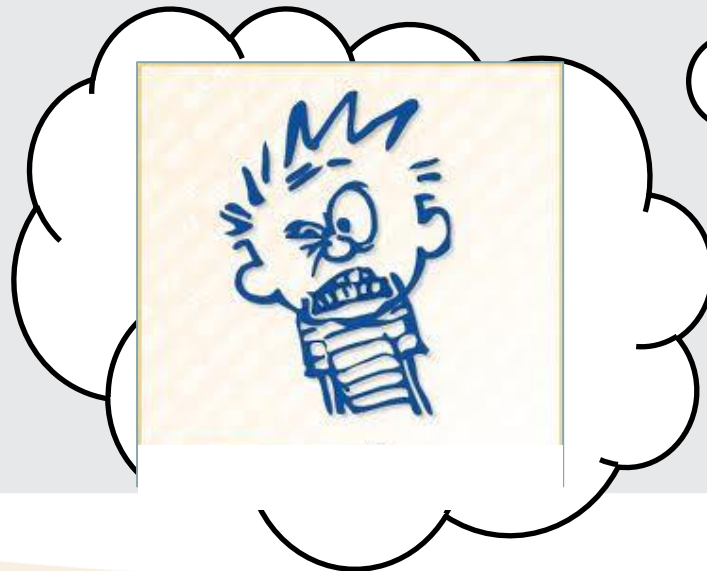
Phases of the CzechGlobe project realization

Project ***preparatory phase*** : 2009-2010



Phases of the CzechGlobe project realization

Project **negotiation phase** : 2011



Phases of the CzechGlobe project realization

Project **construction phase** : 20011-2013



Phases of the CzechGlobe project realization

Project **operational phase** : 2014

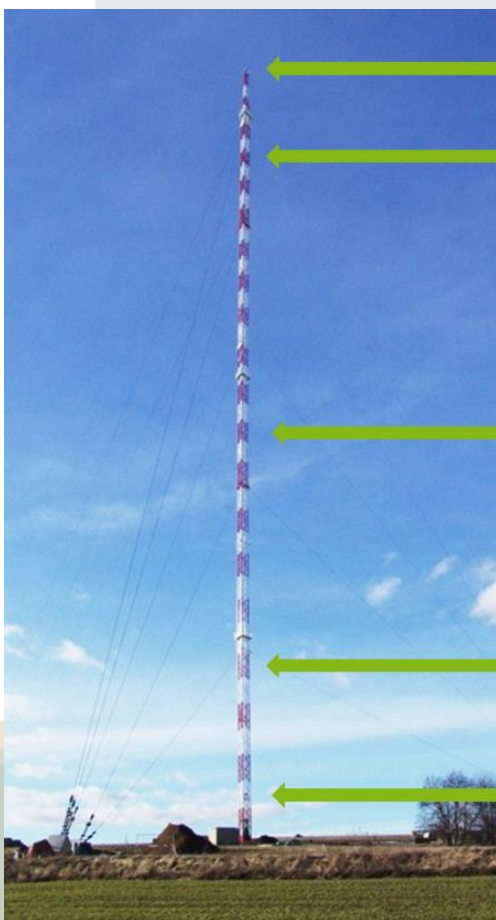


CzechGlobe – spatially distributed infrastructure



Current achievements in the CzechGlobe infrastructure realization

National reference point of GHG observation - *ICOS ATM point*



250 m (meteo, CO₂, CO, CH₄, N₂O, SF₆, ²²²Rn)

230 m (meteo, O₃, Hg)

125 m (meteo, CO₂, CO, CH₄, N₂O, O₃)

50 m (meteo, CO₂, CO, CH₄, N₂O, O₃)

10 m (meteo, CO₂, CO, CH₄, N₂O, O₃)



Current achievements in CzechGlobe infrastructure realization

Domanínek – field laboratory and training center, agroforestry system



Current achievements in the CzechGlobe infrastructure realization

„Farm“ of 24 Advanced Open Top Chambers



Current achievements in the CzechGlobe infrastructure realization

Analytical laboratory Brno



Current achievements in CzechGlobe infrastructure realization

New aircraft „*LIDKA*“ – airborne RMS lab.



Current achievements in the CzechGlobe infrastructure realization

Ecological monitoring



Annual precipitation: 770 mm

Current achievements in the CzechGlobe infrastructure realization

Pavilion of experimental techniques – „Paul Jarvis pavilion Brno“



- ENVIRONMENTAL METABOLOMICS
- CARBON ISOTOPS
- RS CALIBRATION AND STATELITE SIGNAL RECEIVING POINT
- PHYTOTRON CLUSTER

Current achievements in the CzechGlobe infrastructure realization

Long-term impact experiments – „domus and „OTC farm“



Spin-off company



EXPERIENCES WITH THE STRUCTURAL FUNDS UTILIZATION

PLEASURES

➤ ***BIG AMOUNT OF MONEY***

➤ ***RELATIVELY FLEXIBLE STYLE OF INTER- AND ANNUAL BUDGET***

➤ ***POSSIBILITY TO EXCHANGE MONEY BETWEEN INDIVIDUAL CHAPTERS***

EXPERIENCES WITH THE STRUCTURAL FUNDS UTILIZATION

HARDSHIPS

- ***TENDERS PROCEDURES***
- ***VERY OFTEN CHANGED RULES***
- ***APPARENT „INCOMPABILITY“ TO THE CZECH LAW SYSTEMS***
- ***BYROCRACY***

PRINCIPLES OF THE CzechGlobe SUSTAINABILITY

I. agreements

Main national agreements

Type of organization	No	Country
Czech universities	9	CZ
Special secondary schools programme	1	CZ
R&D institutions	7	CZ
Czech companies	3	CZ
International association	1	ECRA
GO	1	CZ
NGO	2	CZ

Main int. agreements

	Country
Univ. of Panama	Panama
Wageningen University	NL
Vietnam Academy of Sci.	Vietnam
Naijing Inst. of Geography and Limnology	China
Nepal Academy of Sci.	Nepal
Australian Population and Migration Centre	Australia
Washington Univ. St. Louis	USA
Innovative Bioimaging Ltd.	USA
NEON	USA

PRINCIPLES OF THE CzechGlobe SUSTAINABILITY

II. foreign scientists and education

PhD. degree		18
DSc. degree		6
Assoc. prof.		10
professor		9
regular lectures		12
	Bc.	2
	Mst.	6
	PhD.	4
secondary schools		3
summer school		2

CzechGlobe staff

Current situation (end of the year 2013)

Number of CzechGlobe employees: 224

Number of scientists: 143

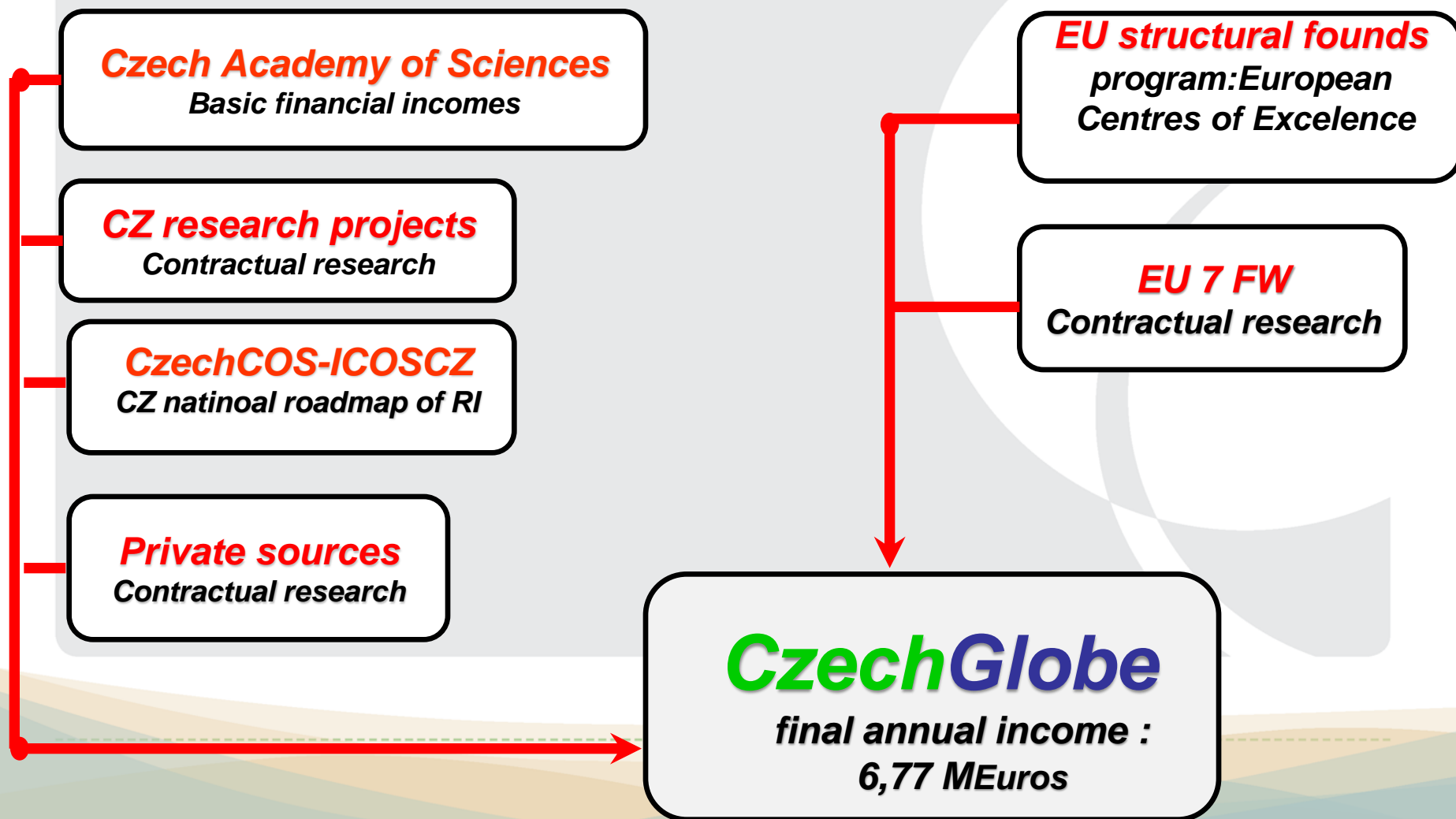
Number of PhD students: 46/ 21/4

Number of foreign scientists: 17

Number of scientific impacted papers: 137

Number of scientific missions: 127

CzechGlobe financial sources 2012



The current situation OF ME after CzecGlobe project realization



**NO, the
reality is
different**

