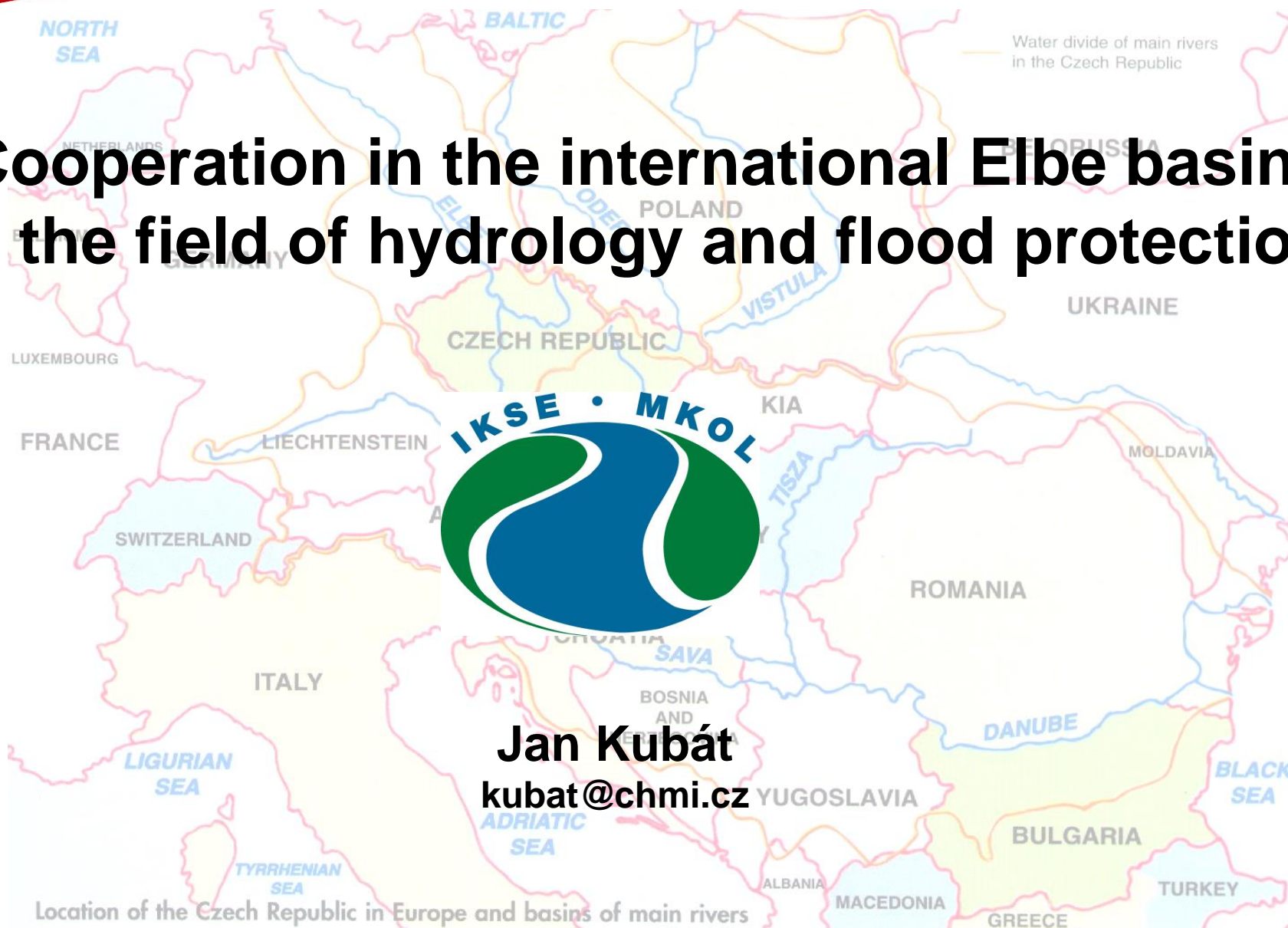


Cooperation in the international Elbe basin in the field of hydrology and flood protection



INTERNATIONAL COMMISSION FOR THE PROTECTION OF THE RIVER ELBE ICPER - IKSE - MKOL



established in 1990 (Agreement on the ICPE)

members: Germany (65,5 % of the basin)
Czech Republic (33,7 %)
European Union (untill 2003)

observers: Austria (0,6 %)
Poland (0,2 %)

secretariat: Magdeburg

president: changed in two years period

language: German and Czech

main tasks:

- to improve water quality
- to enable water usage (supply)
- to achieve natural ecosystems (flora, fauna)
- to decrease a pollution load of the North Sea
- to reduce pollution accidents

- to improve flood protection (1997)
- to coordinate implementation of WFD (2000)
- to coordinate implementation of FD (2007)

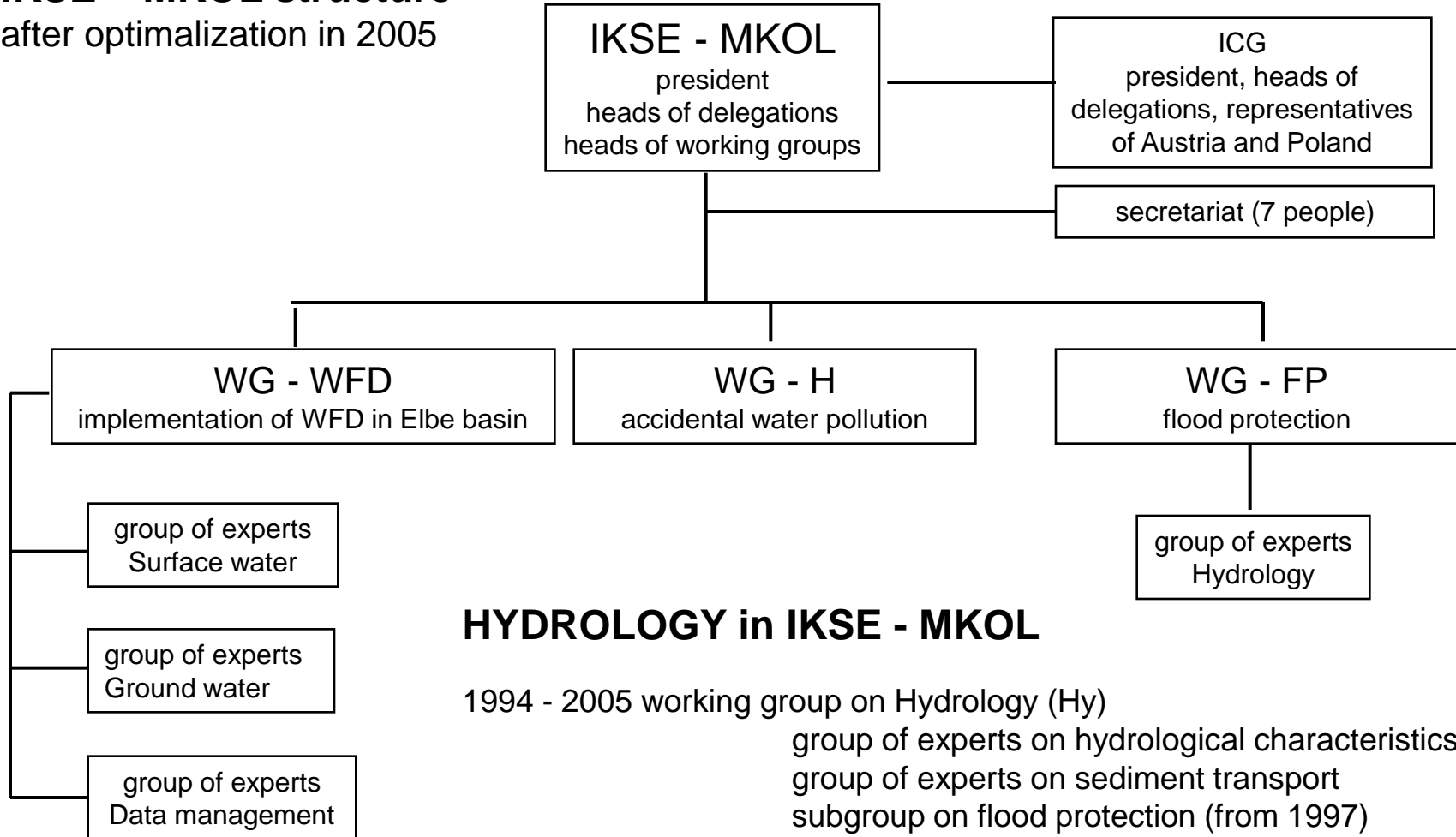
<http://www.ikse-mkol.org>

Wenderburg



IKSE – MKOL structure

after optimization in 2005



HYDROLOGY in IKSE - MKOL

1994 - 2005 working group on Hydrology (Hy)

group of experts on hydrological characteristics

group of experts on sediment transport

subgroup on flood protection (from 1997)

2002 - 2005 working group on flood protection (HWS)

2005 – to now working group on flood protection (FP)

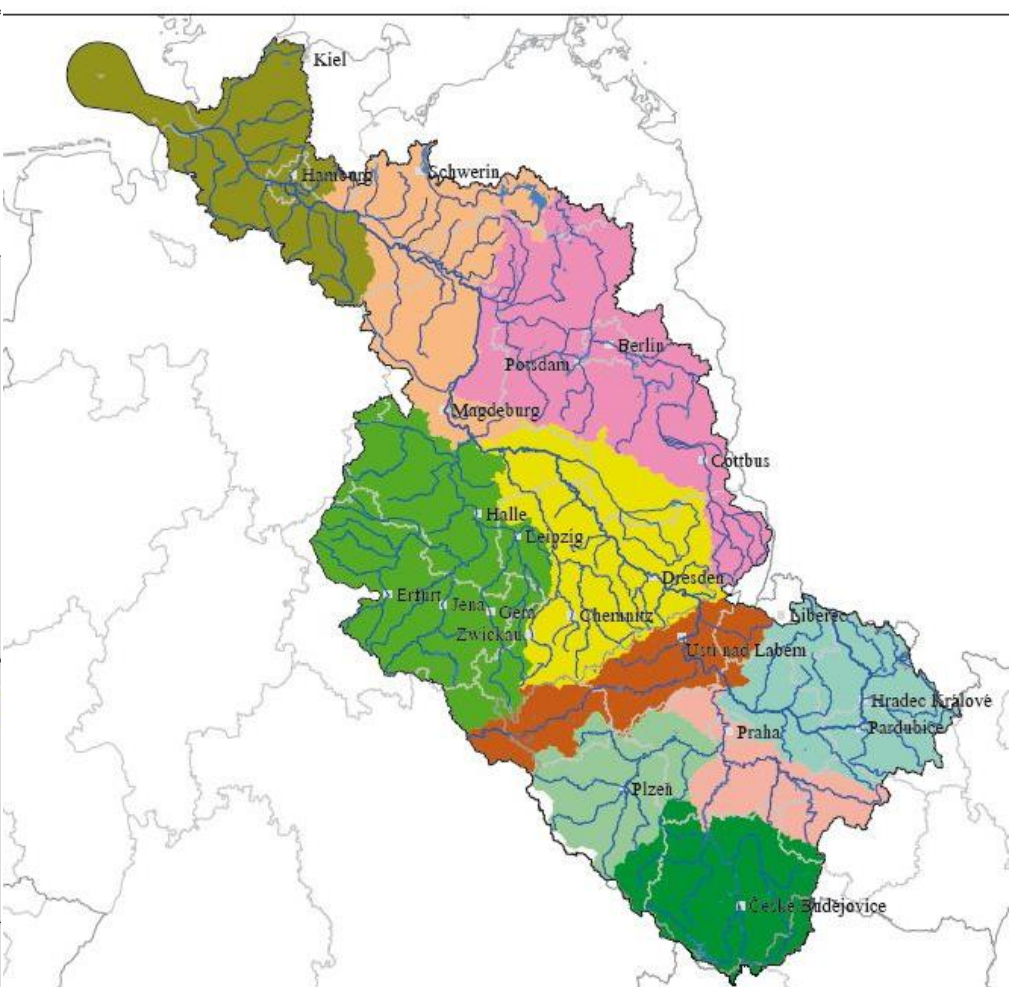
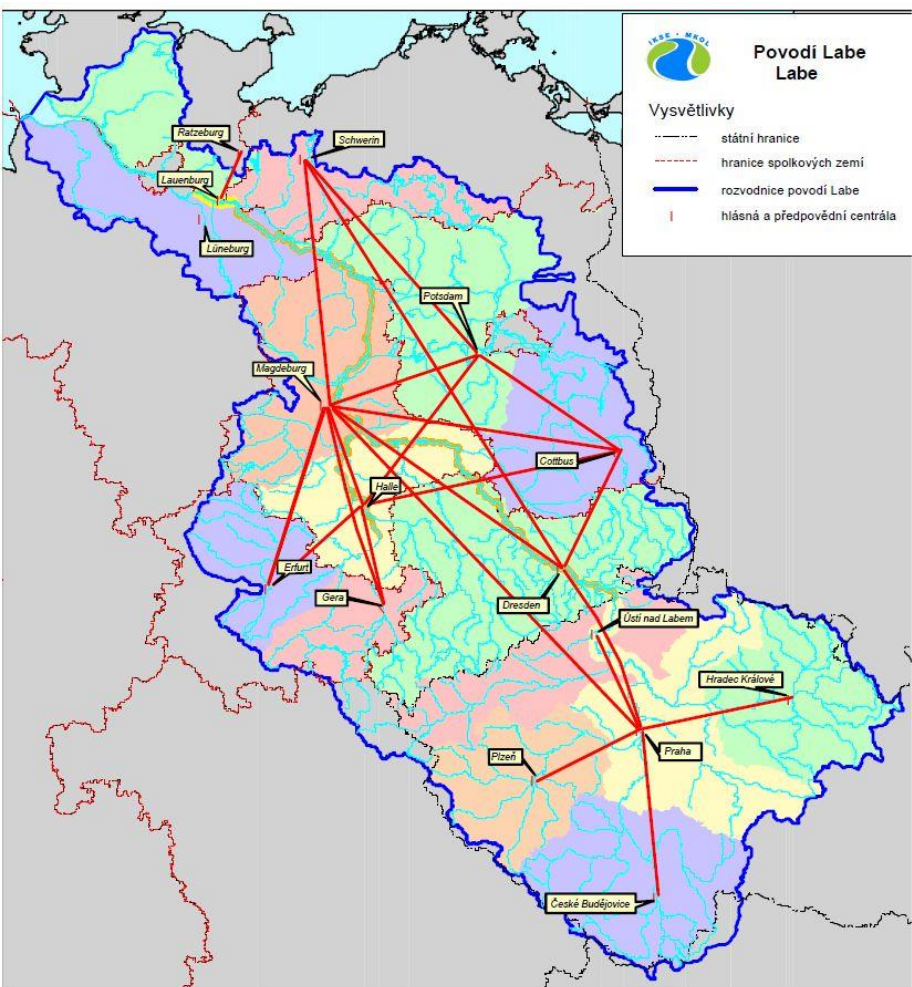
group of experts on hydrology



Cooperation IKSE - MKOL in the field of hydrology and flood protection

Germany - administrative structure – the Elbe basin interferes into 10 federal states
-hydrological service – under responsibility of federal states (federal navigable rivers under BfG)
-implementation of the Flood Directive – under responsibility of federal states (national coordination LAWA)

Czech Republic - hydrological structure – 3 River Basin Company (Elbe, Vltava, Ohře)
-unified meteorological and hydrological service (CHMI)



Publication activities of the working group FP and its predecessors

Conception documents:

Analysis of hydrological aspects flood generation on the Elbe and its major tributaries (1996)

Strategy of flood protection in the Elbe basin (1998)

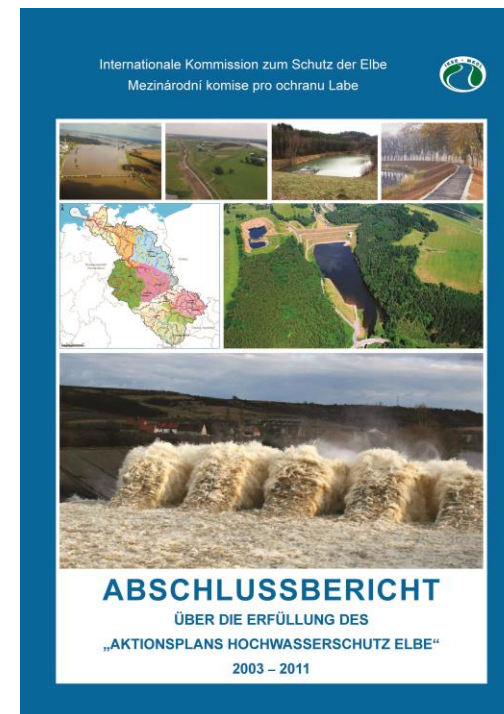
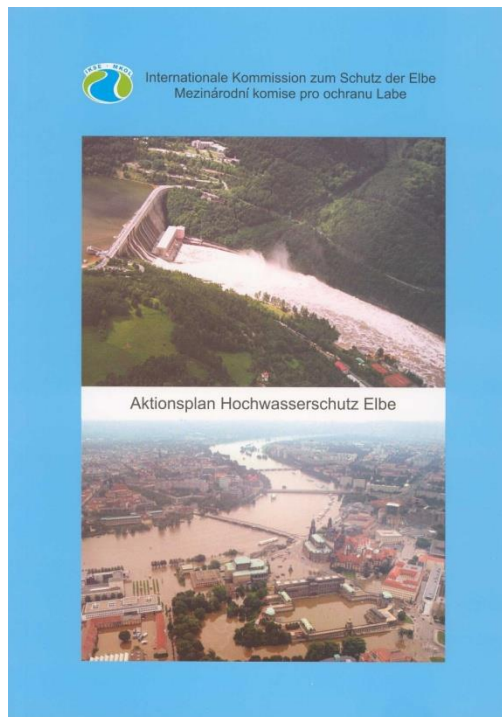
Mapping of current level of flood protection in the Elbe basin (2001)

Action plan of flood protection in the Elbe basin (2003, updated version after flood 2002)

The first report on performance of the Action plan of flood protection in the Elbe basin 2003 – 2005 (2006)

The second report on performance of the Action plan of flood protection in the Elbe basin 2006 – 2008 (2009)

Final report on performance of the Action plan of flood protection in the Elbe basin 2003 – 2011 (2012)



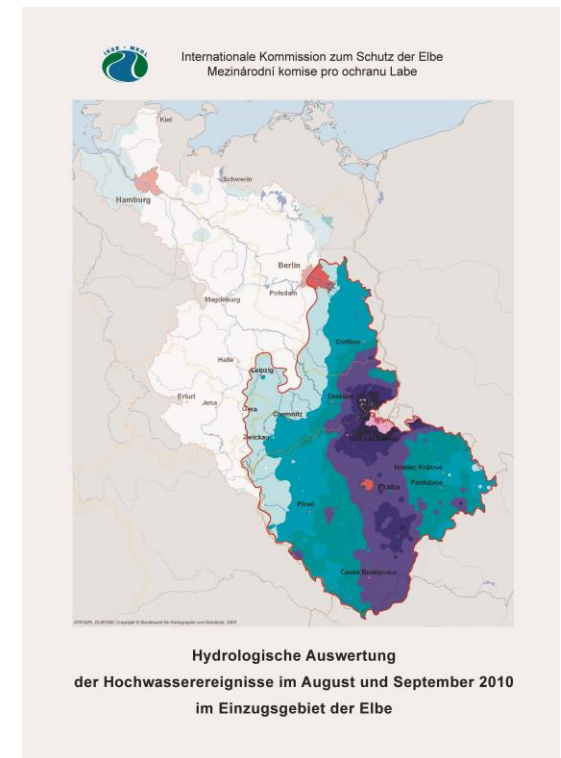
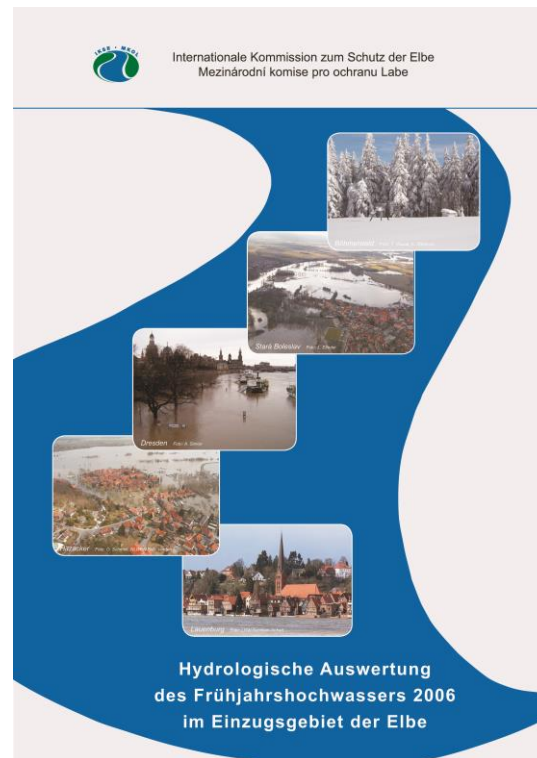
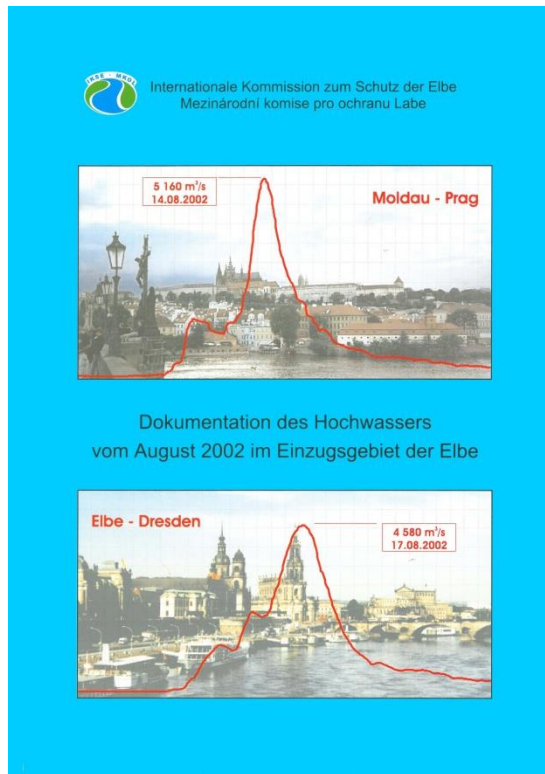
Publication activities of the working group FP and its predecessors

Common floods assessment:

Documentation of the flood in August 2002 in the Elbe basin (2004)

Hydrological assessment of the spring flood 2006 in the Elbe basin (2007)

Hydrological assessment of the floods in August and September 2010 in the Elbe basin (2012)



Publication activities of the working group FP and its predecessors

Other publications:

The Elbe and its catchment (2005)

Hydrological low-flow characteristics of the Elbe river and its major tributaries (2012)

Under preparation:

Hydrological assessment of the floods in June 2013 in the Elbe basin (2013-2014)

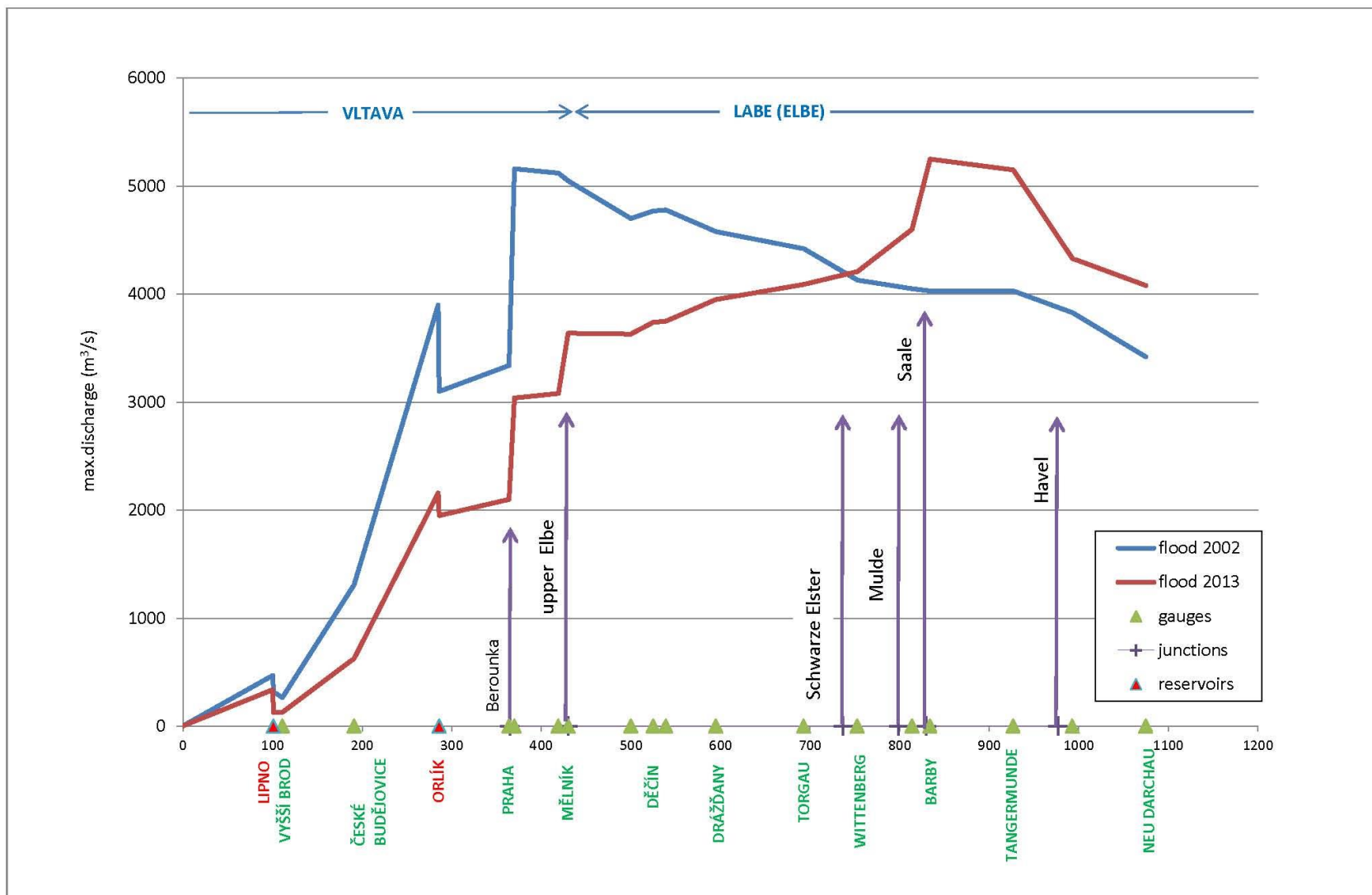
International flood risk management plan in the Elbe basin (2014-2015)



All publications are in German and Czech versions on <http://www.ikse-mkol.org> (in .pdf format)



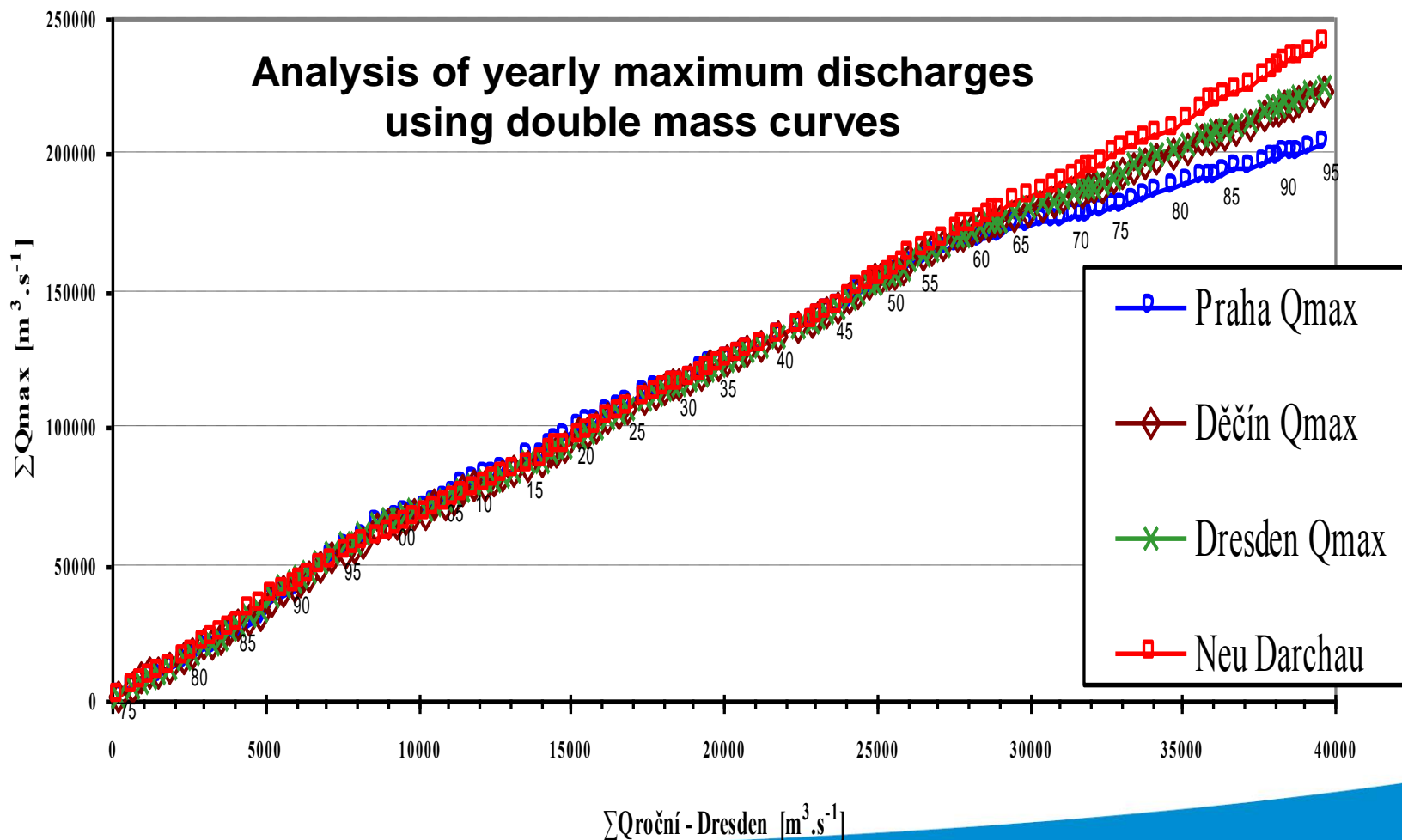
Longitudinal profile of top discharges along the Vltava and Elbe rivers during flood 2002 and flood 2013



Influence of reservoirs on the Vltava and Elbe flood regime

Lipno	1959	33,17 mil.m3	< 2 % of catchment area to state border
Orlík	1961	62,07 mil.m3	23,5 %
Nechranice	1968	36,56 mil.m3	7 % of catchment area to state border

Reservoirs effect decreases downstream the river



Homogenization of long HQ data series of gauges of the German reach of the Elbe

Project leader – German Federal Institute of Hydrology (BfG)

Cooperation on the Czech site – Water Research Institute TGM Prague

Czech Hydrometeorological Institute

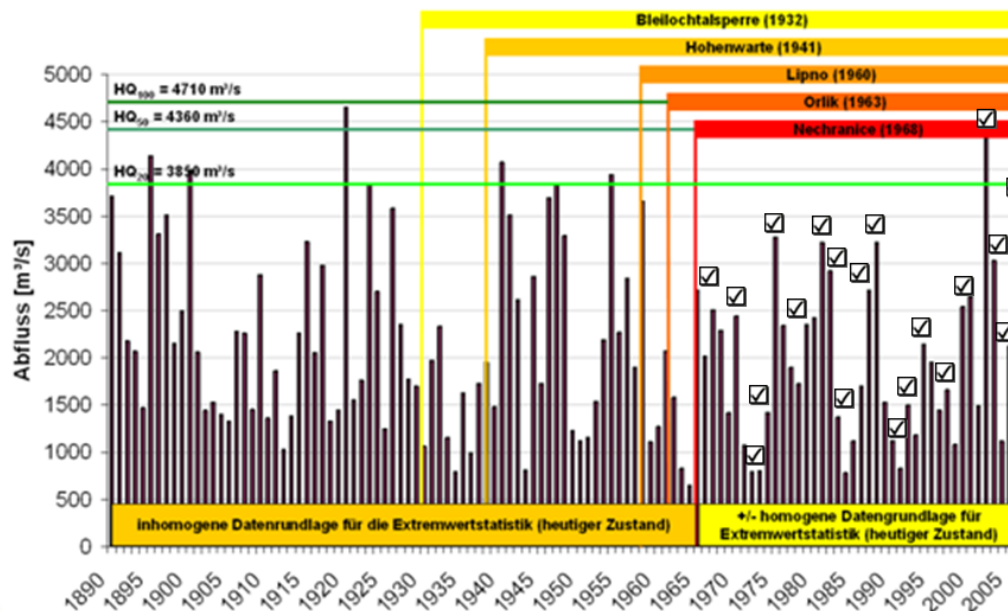
Methodological surveillance – Group of experts on hydrology IKSE - MKOL

Methodology

1. Choice of about 25 typical flood events (out of time series 1968 to 2013):

- Winter floods and summer floods
- flood origin in Vltava catchment area (Prague), in Czech part of Elbe catchment area (Dresden) and in German mountain areas (Barby)

2. (a) Modelling of real course of flood event



- current river situation, that means with dams (after 1968)
- 1:1-use of the existing model

Thank you for attention



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Location of the Czech Republic in Europe and basins of main rivers

