



THE ACADEMY OF SCIENCES  
OF THE CZECH REPUBLIC

# Evaluations in the Academy of Sciences of the Czech Republic: past, present and future

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Academy Council of AS CR





## Outline

### **Structure and organization of AS CR**

- institutes, peoples, budgeting

### **Past Evaluations 1993 - 2004**

- internal, external, methodologies, results & consequences

### **Present Evaluation 2008**

- data-set, collecting data, bibliometry & scientometry, methodology, measurable structure and output of AS CR institutes

### **Future Evaluation 2010**

- automated data collecting system, bibliometry & scientometry + international context + peer & panel system

### **Conclusions**



**The Academy of Sciences of the Czech Republic (ASCR) was established by [Act No. 283/1992 Coll.](#) as the Czech successor of the former Czechoslovak Academy of Sciences.**

**It is set up as a complex of [54 public research institutions](#).**

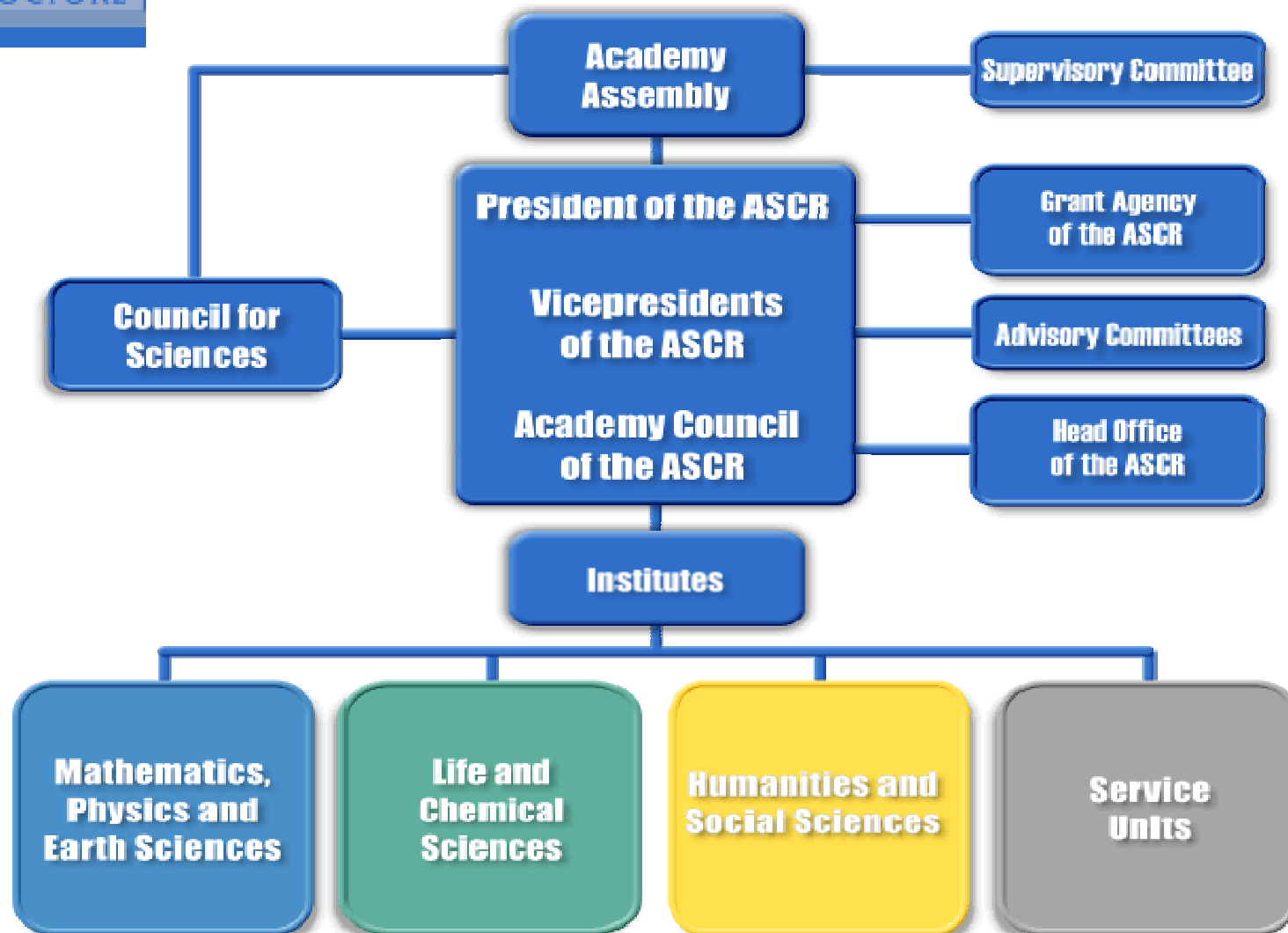
**The Academy employs bellow 7,000 employees more than a half of whom are researchers with university degrees.**



**Financial Resources: ASCR gross amount of the budget is 180 Mio € (2009), and cca 60 Mio € „Investment“ primarily be used for the supplementation and renewal of instruments and equipment essential for the scientific pursuits of institutes**



ASCR STRUCTURE





## **I. Mathematics, Physics and Earth Sciences**

### **1. [Section of Mathematics, Physics and Computer Science](#)**

**6 Institutes**

### **2. [Section of Applied Physics](#)**

**7 Institutes**

### **3. [Section of Earth Sciences](#)**

**5 Institutes**

## **II. Life and Chemical Sciences**

### **4. [Section of Chemical Sciences](#)**

**6 Institutes**

### **5. [Section of Biological and Medical Sciences](#)**

**8 Institutes**

### **6. [Section of Bio-Ecological Sciences](#)**

**4 Institutes**

## **III. Humanities and Social Sciences**

### **7. [Section of Social and Economic Sciences](#)**

**4 Institutes + Library of the ASCR, v. v. i.**

### **8. [Section of Historical Sciences](#)**

**6 Institutes**

### **9. [Section of Humanities and Philology](#)**

**6 Institutes**



## Past Evaluations 1993 - 2004

**1993** – Czech House of Deputies cut significantly budget support for new AS CR,  
Evaluation methodology: instinctive, ad hoc 3 committees of internal and external (Universities) experts for every of science divisions, no external reviews/opinions, final statement based on personal knowledge about scientific activities + estimation of scientific quality/productivity, no database consultations

Final verdict: binary – abolish and dismiss vs. retain in AS CR system

Consequences: 26 Institutes closed and dismissed, number of AS CR employees decreased to about 6000 ( approx. to one half),

**However. Measurable publication activity increased in a short time span**

**1995** – no external „pressure“, internal activity of AS CR to help Institutes to increase scientific quality/production,

Evaluation methodology: – AS CR Evaluation Gremium = panel of national (one third) and international experts, detailed and structured Institute Report, on site visits and presentations of teams, reports of expert panels, comments of Institutes, bibliometry

Final verdict: binary – abolish and dismiss vs. retain in AS CR system

Consequences: all evaluated Institutes retain in AS CR system with consequent control system how identified problems were treated



## Past Evaluations 1993 - 2004

**1999** – external legislative evaluation act (Regulation of CS Government),  
Evaluation methodology – 3 committees for every AS CR science division composed of internal (1/3) and external (2/3) panelists, detailed and structured Institute Report summarizing 1995 – 1999 results and 1999-2003 research foresights, external reviewers (usually 4, 2-3 international), on site visits of Institutes, final verdict of panel + statement of Institute was basis for budgeting decision

Evaluation criteria: publication activity + indicator analyses, visibility and level of research (first application of IF calculations), research foresights and outlook for next quality increase, granting success, personal policy (diploma and PhD students), participation in life of scientific communities, popularization of research results

Results: Committee proposed 4 categories of Institutes (where last one = abolish and dismiss)

Consequences : differential budget support for institutional financing ( = mostly salaries of core researchers and technical staff) using so called coefficient (+ 11%, + 7%, + 4% ) for decision on final annual budget





## Past Evaluations 1993 - 2004

**2004** – external legislative evaluation act (Regulation of CS Government),  
Evaluation methodology – 3 committees for every AS CR science division composed of internal (1/3) and external (2/3) panelists, detailed and structured Institute Report summarizing 1999 – 2003 results and 2004 - 2011 research foresights, external reviewers (usually 4, 2-3 international), on site presentations of Institutes, final verdict of panel + statement of Institute was basis for budgeting decision

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Evaluation by another 7 Committees based in Ministry of Education, evaluation together with Universities/faculties

Evaluation criteria: publication activity + indicator analyses, visibility and level of research (application of IF calculations), research foresights and outlook for next quality increase, granting success, personal policy (diploma and PhD students), participation in life of scientific communities, popularization of research results

Results: Committee proposed 4 categories of Institutes (where last one = abolish and dismiss)

Consequences : differential budget support for institutional financing ( = mostly salaries of core researchers and technical staff) using so called coefficient (+ 11%, + 7%, + 4% ) for decision on final annual budget.

Moreover – 7 AS CR Institutes were deeply and substantially reorganized or dismissed



## Present Evaluation 2008

**2008** – external legislative evaluation act (Regulation of CS Government) + internal decision of Academy Council to check interim the quality of research in AS CR Institutes

Evaluation methodology – 3 committees for every AS CR science division composed of internal (1/3) and external (2/3) panelists,

NO detailed and structured Institute Report ,

NO external reviewers,

NO on site presentations of Institutes,

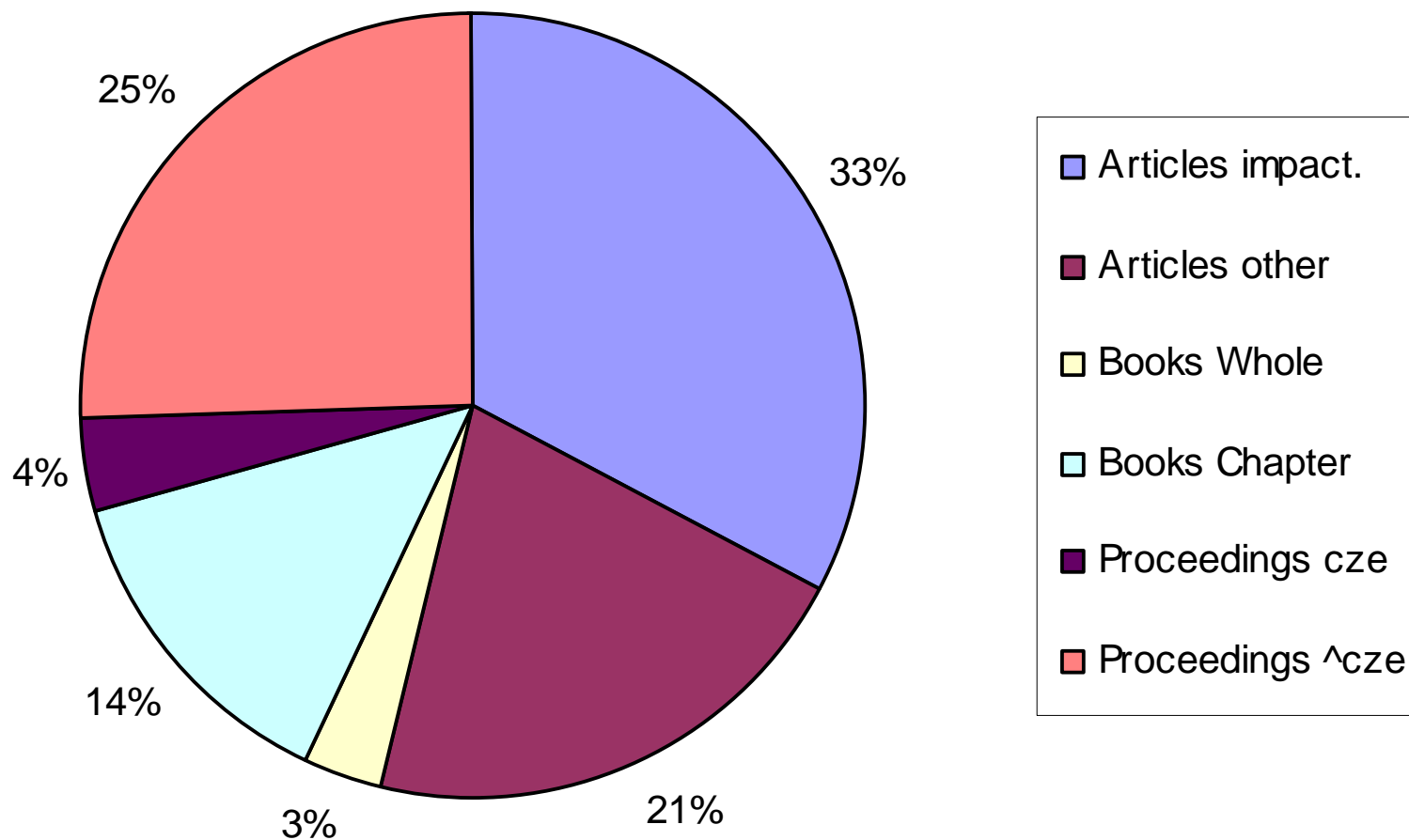
INSTEAD – detailed productivity/quality indicators derived from WoS (where applicable), experimentally also from Scopus + detailed overview of personnel and granting policy/success (prepared in AS CR centre) + detailed overview of student activities + self-SWOT analysis of Institute + 10 most highly reputable results of Institute (provided by Institutes)

Consequences: final verdict of panel + statement of Institute **BUT NO** budgeting decision



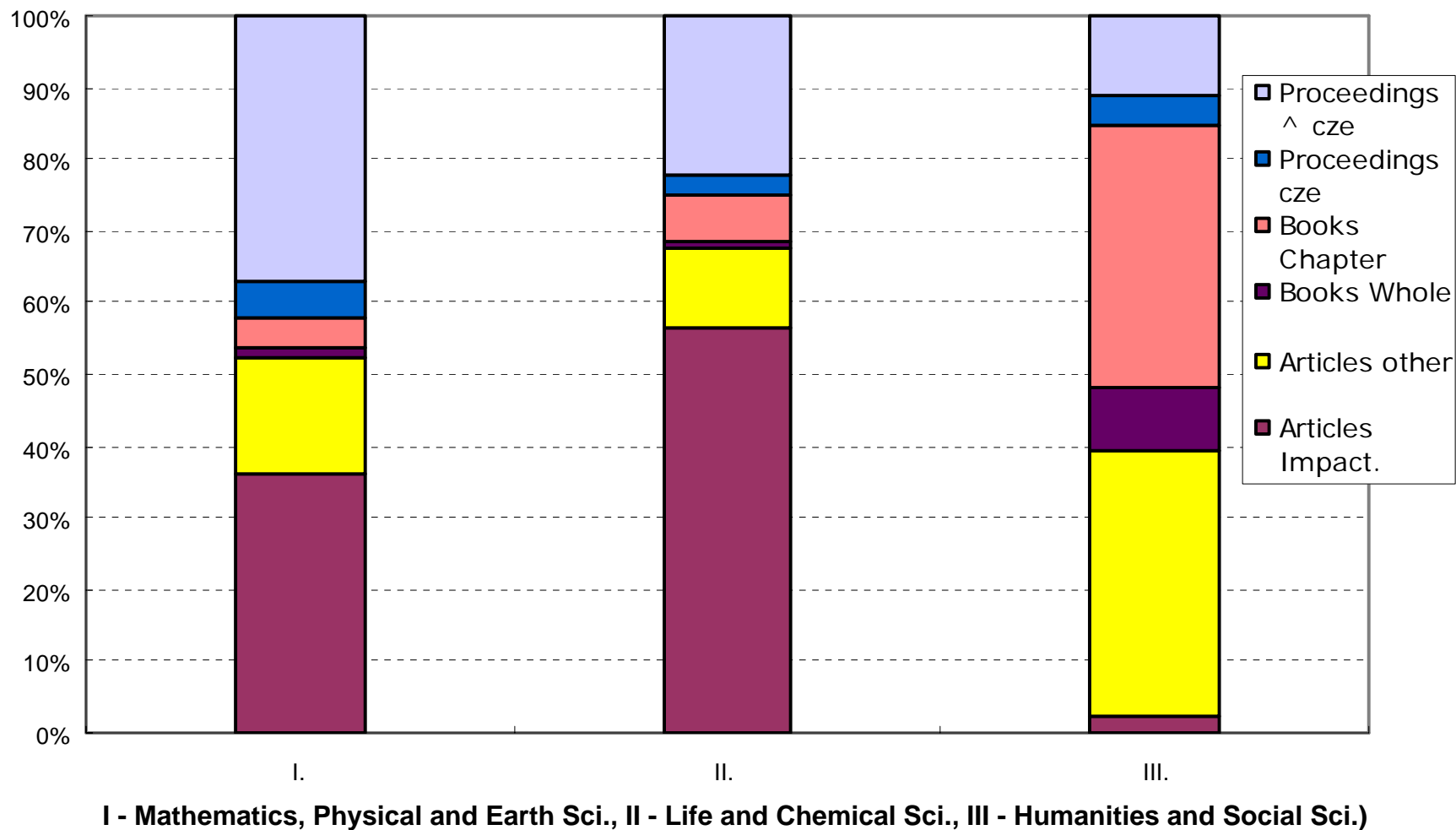


## Publication Type in Period 2004 - 2008 in the ASCR



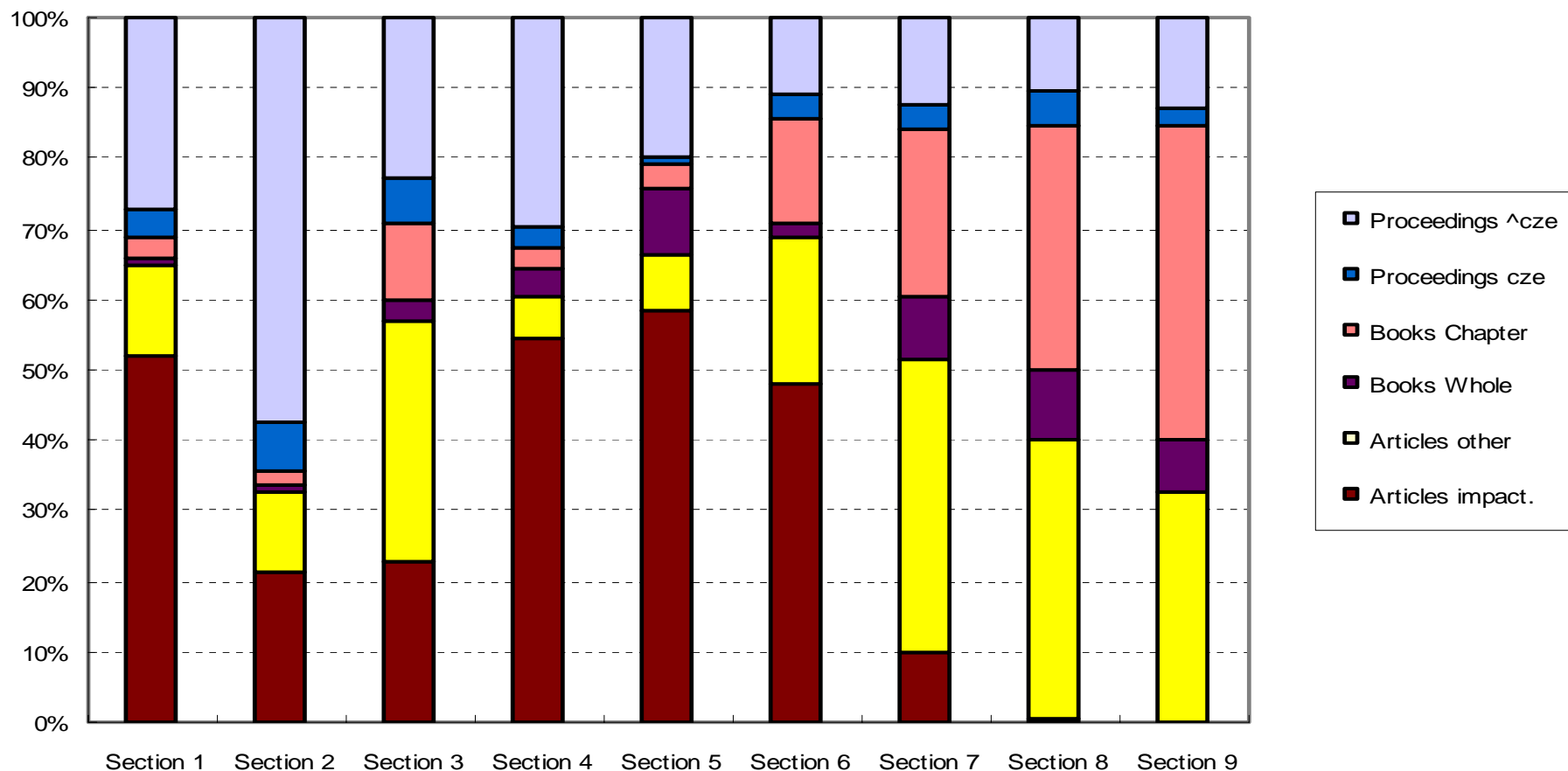


## Publication Type in Period 2003 - 2008 in Divisions





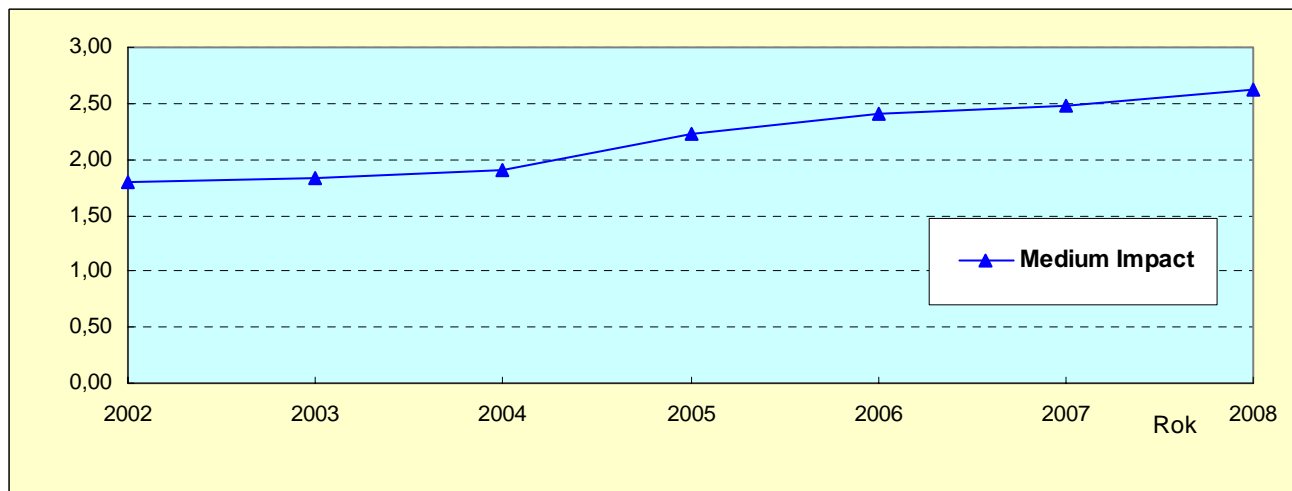
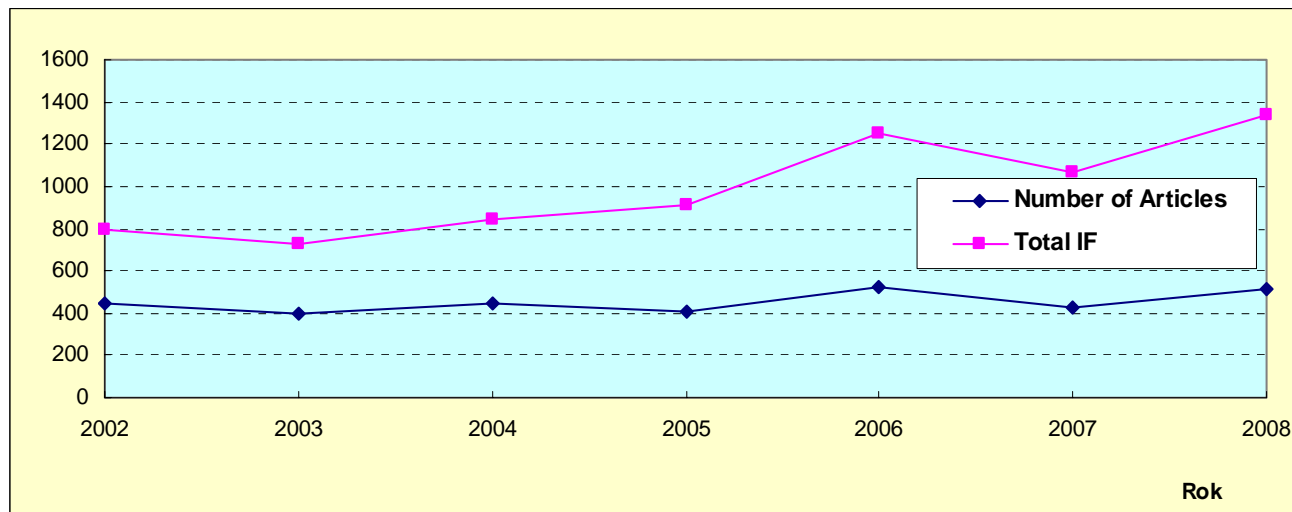
## Publication Type in Period 2003 - 2007 in Sections



1 - 3 Mathematics, Physical and Earth Sci., 4 - 6 Life and Chemical Sci., 7 - 9 Humanities and Social Sci.)

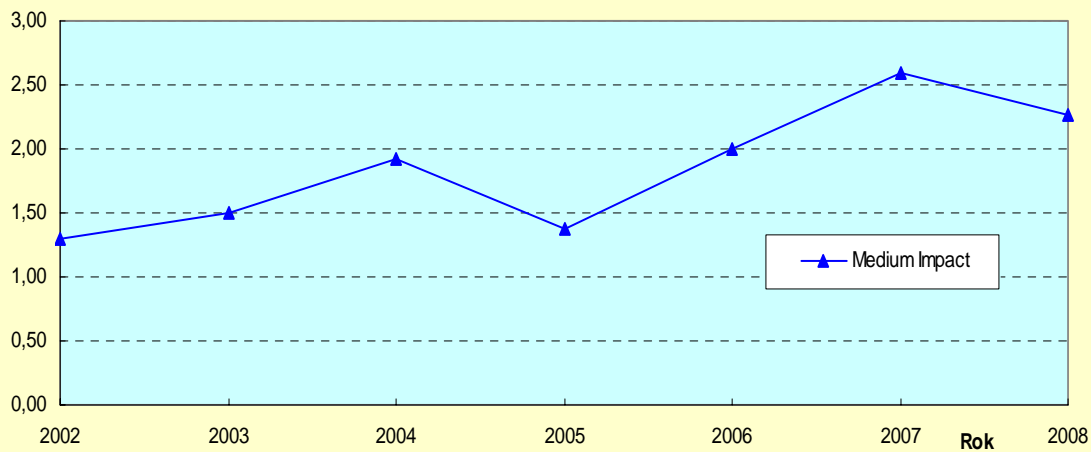
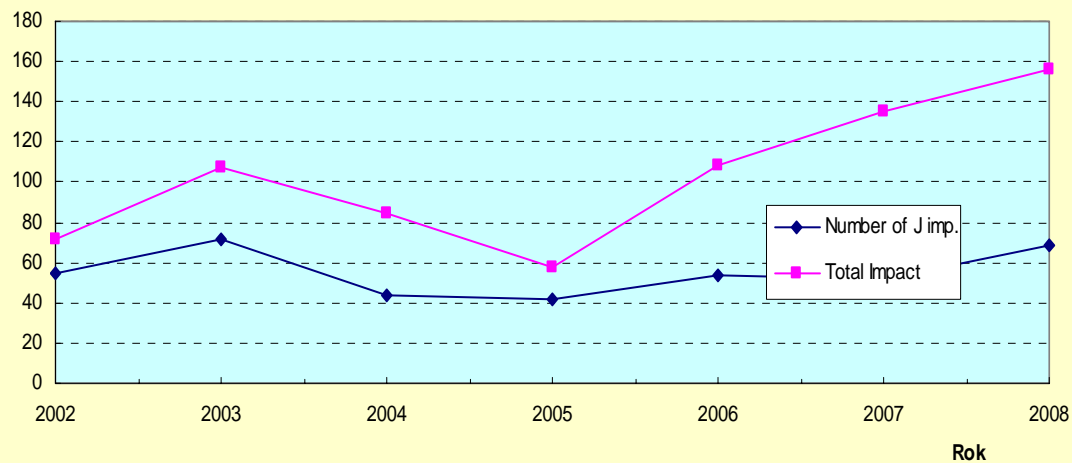


## Inst. of Physics



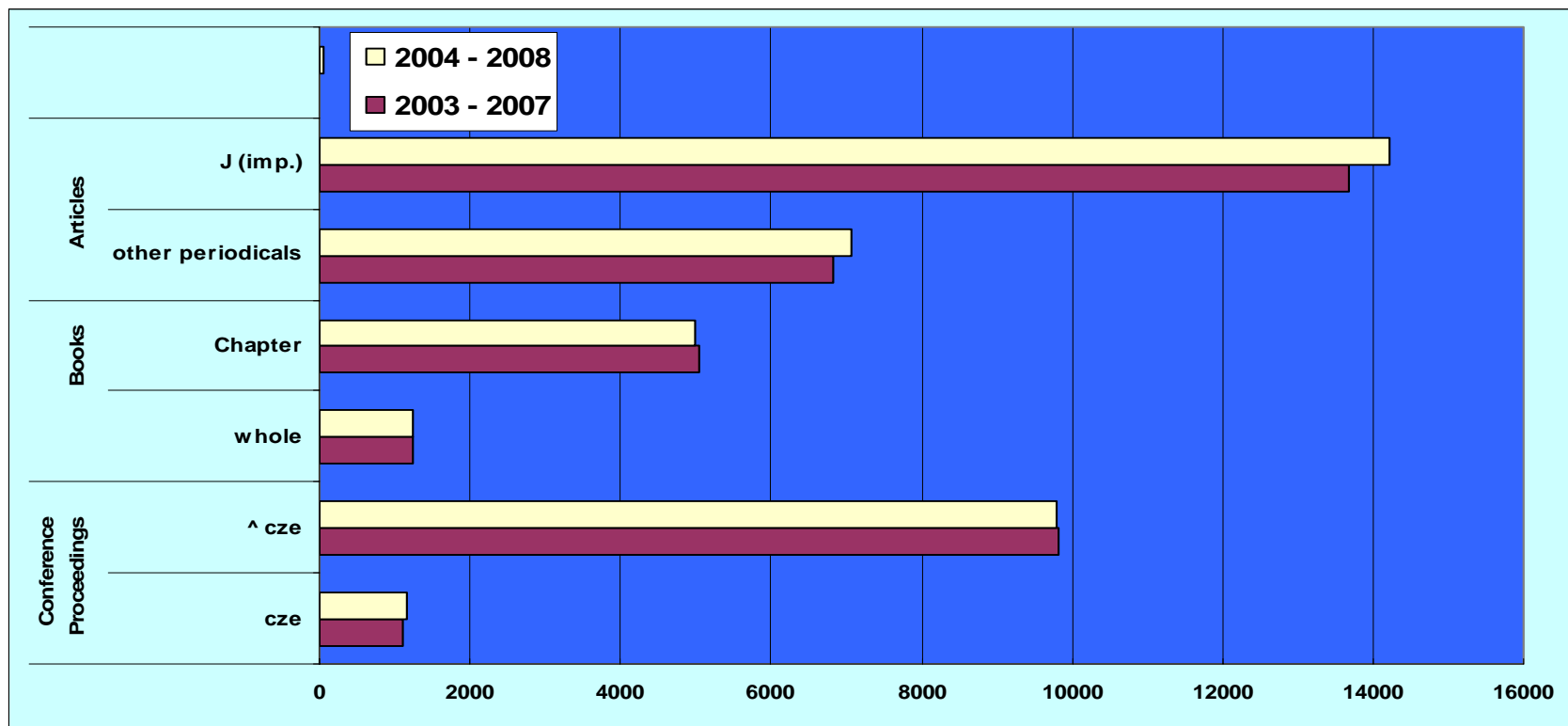


## Institute of Animal Physiology and Genetics





# THE ACADEMY OF SCIENCES OF THE CZECH REPUBLIC



	Conference Proceedings		Books		Articles		%
Roky	cze	^ cze	whole	Chapter	other periodicals	J (imp.)	J (imp.)
2003 - 2007	1107	9815	1251	5058	6820	13676	61,54
2004 - 2008	1159	9792	1252	4994	7063	14217	66,81





## Future Evaluation 2010

**2010** – internal evaluation based on internal decision of Academy Council aiming to increase significantly the quality of research in AS CR Institutes and identify the weakest segments of AS CR research

**Evaluation methodology** – 3 committees for every AS CR science division composed of internal (1/3) and external (2/3) panelists,

- external reviewers/experts reports for every Institute AND teams (research units) +
- on site visits/presentations of Institutes AND teams (research units)

- detailed productivity/quality indicators derived from WoS (where applicable), Scopus, ERIH, ASEP (= internal AS CR database of publications) etc. for every team (research unit) + detailed overview of personnel and granting policy/success (prepared in AS CR centre)

+ detailed overview of student activities + self-SWOT analysis of Institute + 10 most highly reputable results of Institute (provided by Institutes)

NO detailed and structured Institute Report ,  
final verdict of panel + statement of Institute,

**Results:** Rating and clustering of Institutes and their teams (research units) into 6 categories

**Consequences:** significant differential budget support for institutional financing, dismissing of weak research units, increased support for strong research units



# Automated data collecting system for evaluations



ÚSTAV ŽIVOČIŠNÉ FYZIOLOGIE A GENETIKY AVČR, v. v. i.

Publikace ASEP	<b>Publikace RIV</b>	Bibliografie autorů	Projekty	Výzkumné záměry	Hodnocení	RIV - aktuální sběr
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2008 ☒ 2007 ☐ 2006 ☐ 2005 ☐ 2004 ☐ 2003 ☐ 2002 ☐ 2001 ☐  
2000 ☐ 1999 ☐ 1998 ☐ 1997 ☐ 1996 ☐ 1995 ☐ 1994 ☐ 1993 ☐

Článek v odborném periodiku

Odeslat

Publikace v RIV - uplatněné (vydané) v roce 2008

J - článek v odborném periodiku



(pokud u záznamu není odkaz na RIV , záznam bude do RIV odevzdán v roce 2009)

0306601 2008 RIV CZ eng J

**Bechyňová, Renata - Dostál, Jaromír - Stratil, Antonín - Jílek, F. - Horák, Pavel**

Mutation in the RPE65 gene causing hereditary retinal dystrophy in the Briard dogs: application of a new detection method.

[Mutace v genu RPE65 způsobující hereditární retinální dystrofii u Briardů- využití nové metody detekce.]

*Czech Journal of Animal Science*. Roč. 53, č. 4 (2008), s. 176-179. ISSN 1212-1819

Grant: GA AV ČR 1Q5500450578; GA ČR GD523/03/H076

Výzkumný záměr: CEZ:AV0Z50450515

Klíčová slova: RPE65 gene \* CSNB \* dog

Impakt faktor: 0.633, rok: 2007

 Výsledek v RIV

0309952 2009 RIV CZ eng J

**Belzecki, G. - Miltko, R. - Michalowski, T. - Šimůnek, Jiří - Kopečný, Jan**

Chitinolytic activity of the rumen ciliates *Diploplastron affine*.

[Chitinolytická aktivita bavorového prvka *Diploplastron affine*.]

*Folia Microbiologica*. Roč. 53, č. 3 (2008), s. 201-203. ISSN 0015-5632

Grant: GA ČR GA525/05/2584; Ministry of Scientific Research and Information Technology Poland 2 P06Z 052 30

Výzkumný záměr: CEZ:AV0Z50450515



# Automated data collecting system for evaluations



ÚSTAV ŽIVOČIŠNÉ FYZIOLOGIE A GENETIKY AVČR, v. v. i.  
HODNOCENÍ

Odborná periodika	Publikace RIV	Publikace ASEP	Oddělení	<b>Publikační přínos autorů</b>	ÚŽFG - home
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2008 ☐ 2007 ☒ 2006 ☐ 2005 ☐ 2004 ☐ 2003 ☐ 2002 ☐ 2001 ☐  
2000 ☐ 1999 ☐ 1998 ☐ 1997 ☐ 1996 ☐ 1995 ☐ 1994 ☐ 1993 ☐

RIV - 2007	Kniha(cze)	Kniha(eng)	Příspěvek ve sborníku	Odborné periodikum	Impakt. Periodikum	Kapitola v knize (eng)	Recenze (eng)
Albecht, Tomáš					1		
Amler, Evžen					2		
Bímová, Barbora					1		
Blaha, Milan			1				
Bohlen, Jörg			6		4		
Bryja, Josef					1		
Čepica, Stanislav					1		
Dostál, Jaromír							
Ellederová, Zdeňka							
Filová, Eva			1		1		
Flajšhans, Martin					2		
Fleischmannová, Jana			3		3		
Fliegerová, Kateřina			3				



## Conclusions

### External evaluations

- legislative part of the RTD quality control system in the CR
- joint comparative evaluations of the RTD participants, mostly based on simple rating
- starting project Multicriteria/multidiscipline RTD evaluation methodology for CR (modification of REF) combined with funding system methodology to be finished 2010 as result of several separate activities
- identification of strong and weak points of the RTD participants as a basis for conceptual control and subsequent funding
- indicator analyses of n RTD institutions in CR by Thompson Reuters by Research Evaluation and Bibliometric Data Department for period 200 ?
- 2008

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## Conclusions

### Internal evaluations

- integral part of AS CR activities with significant impact on life in the institutes and the whole Academy
- three evaluation levels
  - Institutes – held every five years
  - Teams – individually or every five years
  - Individuals - attestation system held individually or every 5-6 years with impact on next contract period
- wherever applicable based on sound data derived from scientific databases (TR, SCOPUS, ERIH) + peer + panel reviews
- three separate committees (1. Mathematics, Physical and Earth Sci., 2. Life and Chemical Sci., 3. Humanities and Social Sci.)
- basic feedback: demanding and fair but formative results for future



**Thank you**