



Deutsches Institut für Internationale Pädagogische Forschung  
German Institute for International Educational Research  
Mitglied der Leibniz-Gemeinschaft

Hans Doebert / Stefan Brauckmann

# **PISA 2000 –Areas of reform of the educational policy and findings of the educational research in Germany**

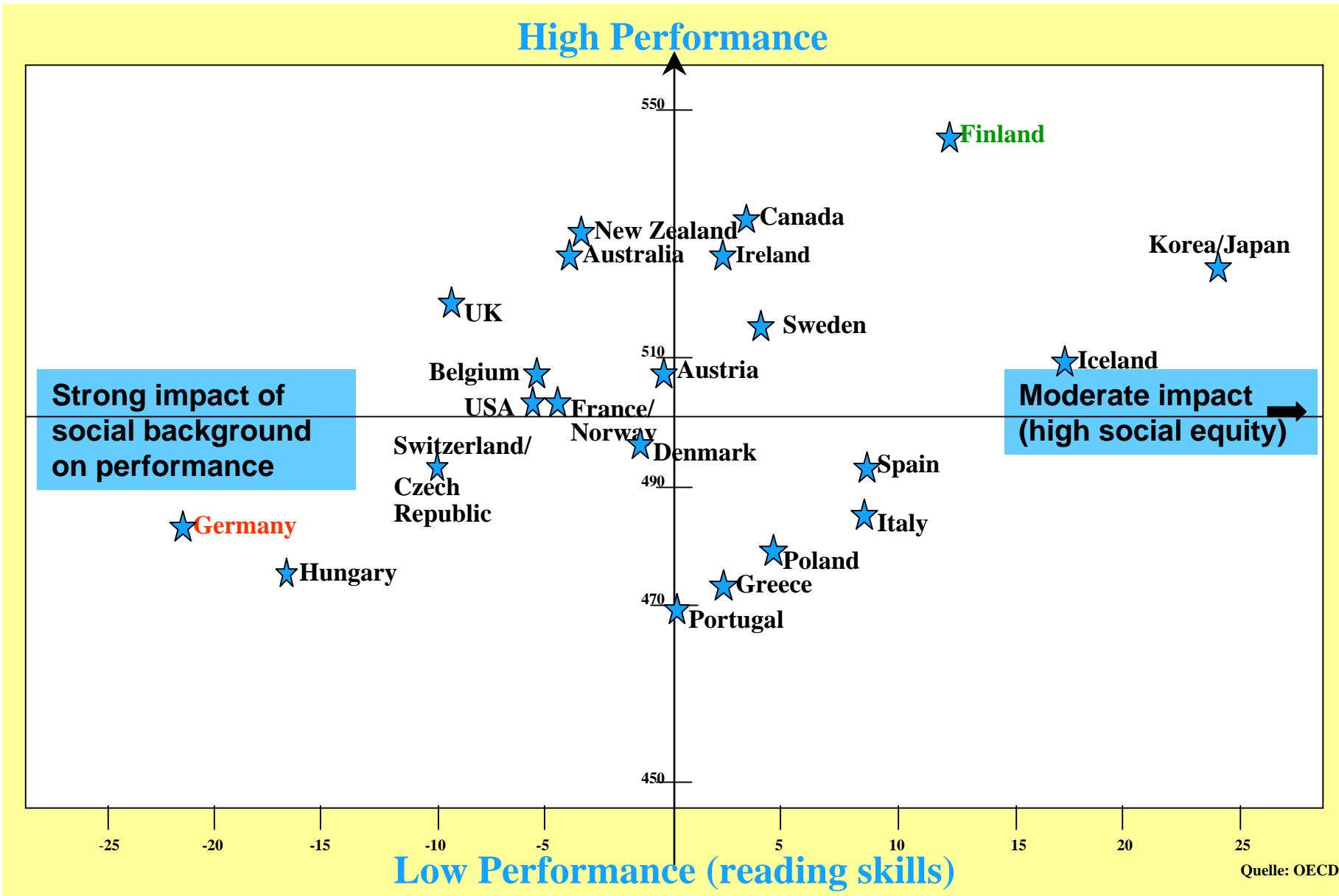
Presentation, Conference on School Leadership and School Achievement, Utrecht, 25th to 27th November 2004

## Content:

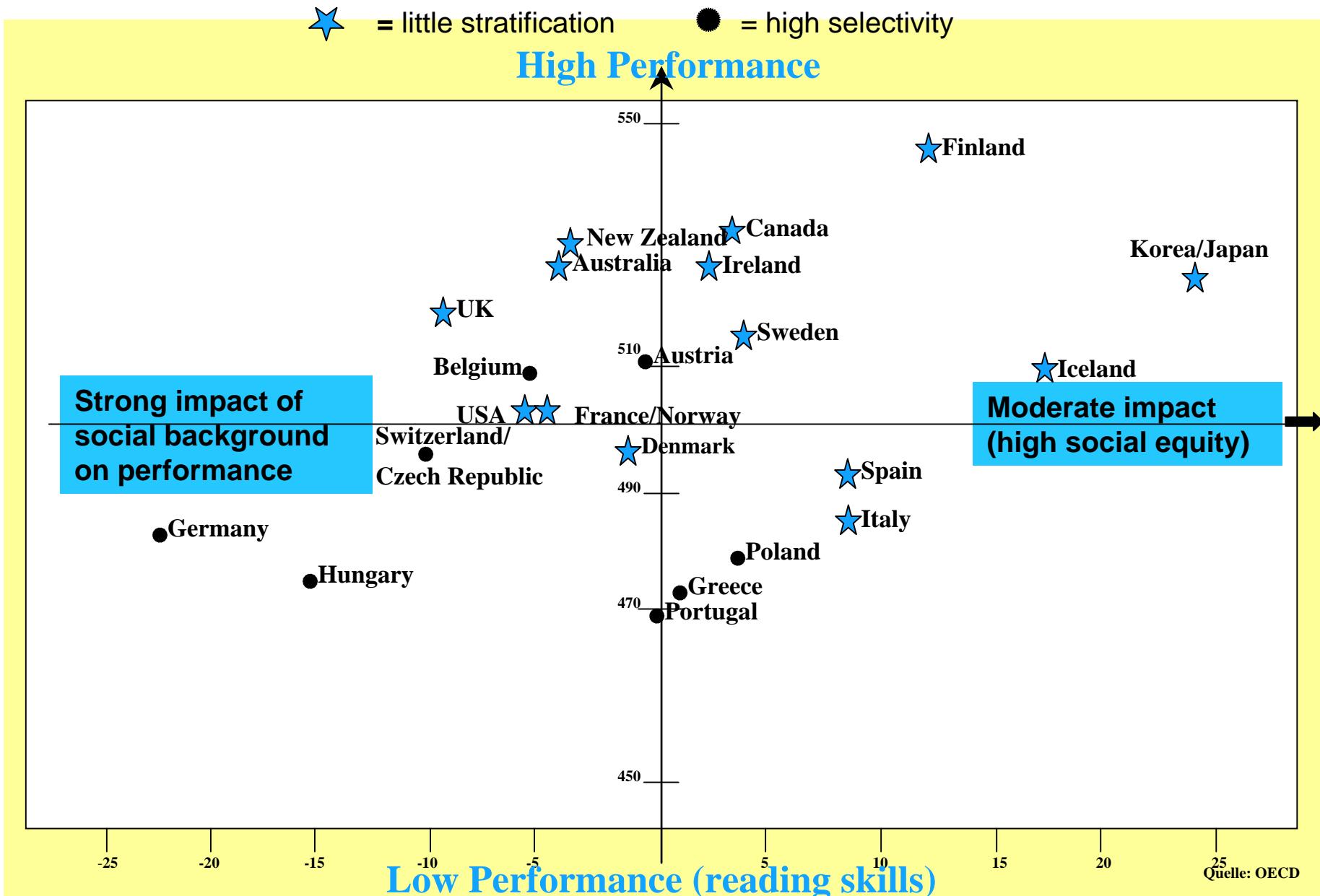
1. The background: Some selected results of PISA 2000
2. The seven areas of reform of the KMK\* after PISA 2000
3. Some results of the educational research in Germany
4. Consequences for the development of quality

KMK\* = Standing Conference of the Ministers of Education and Cultural Affairs of the Laender in the Federal Republic of Germany

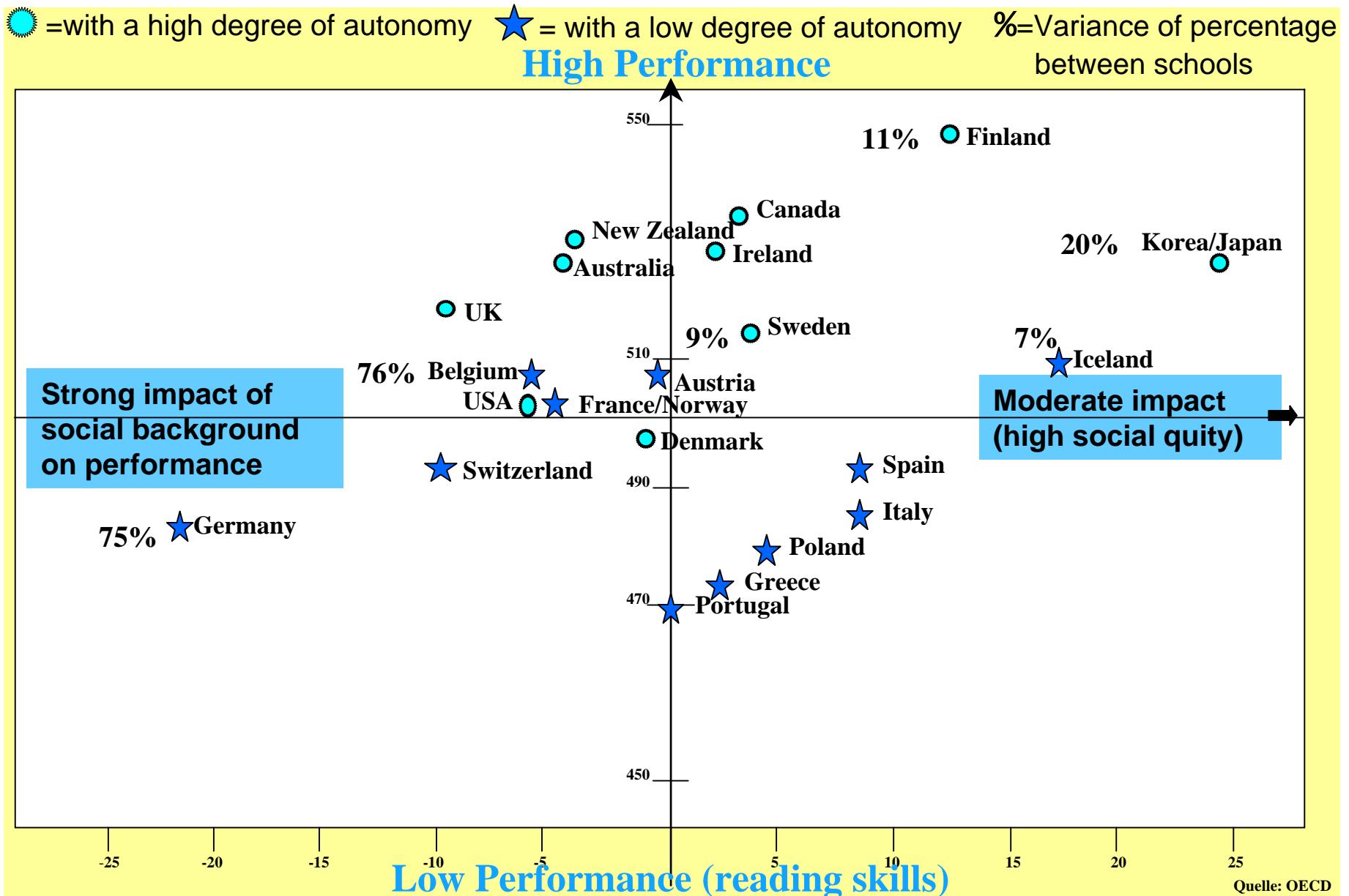
# 1. The background: Some selected results of PISA



# Structural tracking separation and institutional differentiation



# Student achievement and the degree of autonomy



# System Monitoring – Attendance in international large scale assessments (1)

|                          | FIMS<br>1963/<br>64<br>13<br>year<br>olds | SII M* | SII<br>NM* | FISS<br>1970<br>10<br>year<br>olds | 14<br>year<br>olds | SII | SIMS<br>1976-<br>1989<br>13<br>year<br>olds | SII | SISS<br>1979-<br>1991<br>10<br>year<br>olds | 14<br>year<br>olds | SII |
|--------------------------|---|--------|------------|------------------------------------|--------------------|-----|---|-----|---|--------------------|-----|
| <b>Canada</b>            |   |        |            |                                    |                    |     | X   | X   | X   | X                  | X   |
| <b>Finland</b>           | X   | X      | X          | X                                  | X                  | X   | X   | X   | X   | X                  | X   |
| <b>France</b>            | X   | X      | X          |                                    |                    | X   | X   |     |   |                    |     |
| <b>Sweden</b>            | X   | X      | X          | X                                  | X                  | X   | X   | X   | X   | X                  | X   |
| <b>England<br/>(UK)</b>  | X   | X      | X          | X                                  | X                  | X   | X   | X   | X   | X                  | X   |
| <b>Nether-<br/>lands</b> | X   | X      | X          | X                                  | X                  | X   | X   |     |   | X                  |     |
| <b>Germany</b>           | X   | X      | X          | X                                  | X                  | X   |   |     |   |                    |     |

S II M: secondary student with focus in mathematical science; S II NM: secondary student without focus in mathematical science

## System Monitoring – Attendance in international large scale assessments (2)

|                  | IRLS<br>1990/91<br>9 year<br>olds | 14 year<br>olds | TIMSS<br>P | 1994/95<br>SI | 1995/96<br>SII | CivED<br>1994-<br>2002<br>14 year<br>olds | PISA<br>2000<br>15 year<br>olds | PIRLS<br>2001<br>P |
|------------------|-----------------------------------|-----------------|------------|---------------|----------------|---|---------------------------------|--------------------|
| Canada           | X                                 |                 | X          | X             | X              |   | X                               | X                  |
| Finland          | X                                 | X               |            |               |                | X   | X                               |                    |
| France           | X                                 | X               |            | X             | X              |   | X                               | X                  |
| Sweden           | X                                 | X               |            | X             | X              | X   | X                               | X                  |
| England<br>(UK)  |                                   |                 | X          | X             |                | X   | X                               | X                  |
| Nether-<br>lands | X                                 | X               | X          | X             | X              |   | X                               | X                  |
| Germany          | X                                 | X               |            | X             | X              | X   | X                               | X                  |

Source: Doeber/Sroka (Eds) (2004):  
Features of Successful School Systems

## **2. The seven areas of reform of the KMK after PISA 2000**

*Area of reform 1:*

### **Improvement of German language skills in the pre-school sector**

**Contents:**

- Furthering of children in the knowledge of the German language (especially for children with migration background and their parents)
- Further development of educational concepts for the kindergarten and the pre-school sector.
- Implementation of performance measurements concerning the mastering of the German language.

*Area of reform 2:*

**Steps for a better networking between the pre-school sector and the primary schools with spot on early school enrolment**

**Contents:**

- Steps for a better networking between the pre-school sector and the primary schools.
- To decrease the number of deferments of school enrolment.
- Introduction of a more flexible handling with school enrolment

*Area of reform 3:*

## **Steps to further literacy in reading, mathematics and science in the primary education sector**

**Contents:**

- Structural steps (introduction of the extended half-day primary school, providing of all-day schools)
- Educational process-monitoring steps (optimisation of study time, achievement surveys, support of language education, new methodical- didactical concepts for topics like reading-competence and understanding of texts).
- Implementation of performance measurements to improve primary education.

*Area of reform 4:*

## **Steps to further disadvantaged children, as well as children with a migration background**

**Contents:**

- The intensification of cooperation between parent`s house and school as well as between school youth school services and school.
- The establishment of special support classes and practical classes.
- The support of children with German as a second language.

*Area of reform 5:*

**Measures to develop and ensure quality of the teaching process and school based on the introduction of binding standards and result- oriented evaluation**

**Contents:**

- New definition of the curriculum
- Conception of school programmes
- Use and interpretation of comparative school performance tests
- Intensification of external evaluation procedures
- Formulation of standards in the core subjects
- Quality management at the schools

*Area of reform 6:*

**Measures to improve the professional development of teachers, particularly with regard to diagnostic and methodical competences as a part of systematic school development.**

**Contents:**

- Reform of the formal teacher training.
- In-service training for teachers with regard to diagnostic competences.
- In-service training for teachers with regard to methodical competences.
- Paying attention to research findings concerning the teaching practice.
- Scientific monitoring of innovations undertaken by the educational policy.

*Area of reform 7:*

**Measures to expand school and outside school based provisions of all-day education with regard to further disadvantaged pupils and pupils with special needs**

**Contents:**

- Extension of all-day schools
- Extension of additional all-day offers
- Implementation of vacation academies (summer schools).
- Individual encouragement by differentiation.
- Free time type programmes.
- Support systems in the afternoon for especially disadvantaged pupils in cooperation with school and youth welfare services.

### 3. Some results of the educational research in Germany

**Findings of the international research project „Comparison of education systems in selected countries – understanding the international variation of PISA results“**

In cooperation with the following international partners:

- **Canada: Prof. Dr. David N. Wilson, Prof. Dr. Tony C.M. Lam, University of Toronto**
- **England: Prof. Dr. Pamela Sammons a.o., University of London**
- **Finland: Prof. Dr. Pirjo Linnakylä, University of Jyväskylä**
- **France: Dr. Jean-Claude Emin a.o., French Ministry of Education**
- **The Netherlands: Prof. Dr. Jaap Scheerens, Dr. Bob Witziers, University of Twente**
- **Sweden: Prof. Dr. Holger Daun a.o., University of Stockholm**

## Features of successful school systems:

- (1) School systems demonstrating high performance in PISA are characterized by continued and target-oriented reform and innovation policies*
- (2) School systems demonstrating high performance in PISA have a relatively straightforward and flexible interior organization and a clear output control*
- (3) System monitoring is a regularly applied means in successful school systems: in addition to student performance, the basic conditions of learning, education biography, motives, social competencies etc. are also taken into account*
- (4) Those school systems which demonstrate high PISA performance have elaborated support systems (including support by external providers), which flexibly provide differentiated and user-oriented services for all levels of the education system*

*(5) Standardized, binding performance expectations (education standards) and test procedures for quality assurance that are set up on these, are essential for a successful school system*

*(6) A flexible formation of pedagogic processes within a school is one of the fundamental features of the work of the individual school in those school systems with high PISA performance*

*(7) In school systems with high PISA performance priority is given to the balancing of different starting points of learning conditions, especially concerning children with migration backgrounds*

*(8) The distinct efforts made to reach a balance between school careers that were planned and initially carried out until adulthood are evident in successful school systems*

*(9) The relationship between teacher training, teacher professionalism and student achievement is of great importance in successful school systems*

*(10) In successful school systems we can assume the impact of a factor “culture of achievement”*

## **4. Consequences for the development of quality**

**A new model for quality development (and control) with the following components (features):**

- guideline of educational standards (achievement expectations, partly competence models, marking guideline),
- raising of self-responsibility (autonomy) of schools
- enlargement of internal differentiated educational offers
- foundation of professional evaluation agencies
- large scale assessments, school- evaluation (partly as school-inspection) centralized final examinations
- aimed interventions in problematic cases