



National Centre
for External Evaluation
of Education

*Through knowledge evaluation
to quality of education*

National Centre for External Evaluation of Education – institution presentation

Study visit to the Republic of Croatia –
delegation from Mongolia

Zagreb, 24 May, 2017

**Maja Jukić, MA in El.Eng.,
Director of the National Centre for External Evaluation of Education**



National Centre
for External Evaluation
of Education

**Welcome to the
National Centre for
External Evaluation of Education,
the City of Zagreb,
and the Republic of Croatia**

the Centre's employees



Presentation structure

- ✓ The Centre's legal and strategic framework
- ✓ The Centre's identification card
- ✓ Feedback analysis after surveying stakeholders on their collaboration with the Centre and its expertise
- ✓ The EU strategic framework
- ✓ The Centre's long-term priority projects
- ✓ The state graduation exam – the State Matura
- ✓ The Centre's research projects in secondary education
- ✓ International studies in education
- ✓ Other projects and activities of the Centre



National Centre
for External Evaluation
of Education

General info

The Republic of Croatia

- Declaration of Independence: 8 October, 1991
- Capital City: Zagreb
- Population: 4.4 million
- 28th EU member: 1 July, 2013

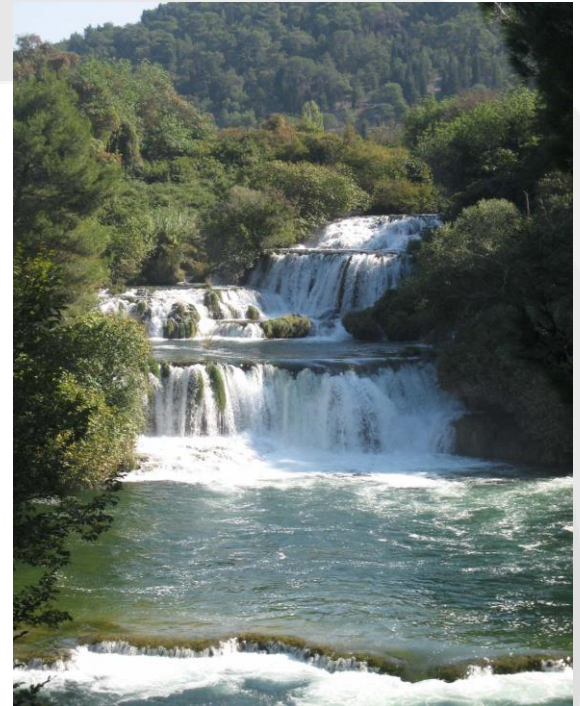




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1185 islands and islets

8 national parks





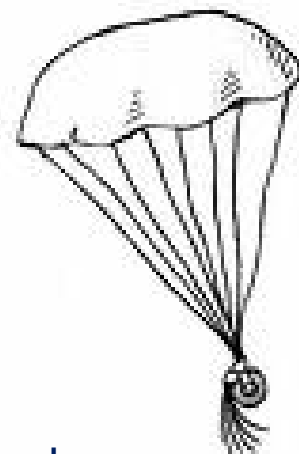
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Croatian innovators and inventors

CRAVAT/TIE – a tradition introduced by Croatian soldiers, widely accepted in Europe 1618 – 1648



Faust Vrančić (1551 – 1617)
parachute



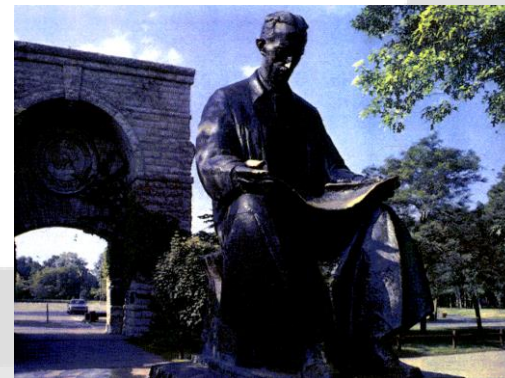
Nikola Tesla (1856 – 1943)

The father of alternating current – the production and transmission of electrical energy as we know it today.

Great contribution in high frequency technology and wireless communications.



Slavoljub Eduard Penkala
(1871 – 1922)





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Pre-tertiary education In the Republic of Croatia – in numbers

- 777 kindergartens (238 private)
- 151 514 (58.00%) children (29 320 –19.40% in private kindergartens)
- 864 primary schools
- 300 000 students
- 180 000 students in secondary education
- 128 000 students in VET education
- 300 VET schools
- 100 grammar schools (*gymnasium*)
- 18 000 teachers in secondary education

The Centre is responsible for providing objective and independent feedback on pre-tertiary education system in the Republic of Croatia.



Primary and secondary education act (2008, article 88)

(1) In school institutions, external evaluation and self evaluation are carried out with the aim of improving school quality, and they refer to the implementation of national exams and measuring the quality level of all national curriculum components.

(3) The National Centre for External Evaluation of Education is in charge of external evaluation of education.

(4) Schools are required to use the results of national exams and all other achievement indicators of educational work for analysis and self-evaluation in order to continuously improve the quality of schools' work.



Primary and secondary education act (2008, article 117)

- (1) The license to work in an educational institution is a public document proving the required level of general and professional competence for teachers, professional collaborators and principals.
- (2) The first work license that teachers and expert collaborators obtain is the document that proves they passed professional examination.
- (3) Teachers and professional collaborators have the right and duty to renew the license every five years.
- (4) **Licensing is the responsibility of the National Centre for External Evaluation of Education.**
- (5) The program, procedure and manner of obtaining, issuing and renewing the licenses for teachers, professional collaborators and school principals, as well as the rights and duties arising under paragraph 1 of this Article are prescribed by the Minister.



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Present state according to the European Commission's report on external evaluation of schools in Europe

What is Eurydice

The Eurydice network's task is to understand and explore how Europe's different education systems are organised and how they work. The network provides descriptions of national education systems, comparative studies devoted to specific topics, indicators and statistics. All Eurydice publications are available free of charge on the Eurydice website or in print upon request. Through its work, Eurydice aims to promote understanding, cooperation, trust and mobility at European and international levels. The network consists of national units located in European countries and is co-ordinated by the EU Education, Audiovisual and Culture Executive Agency. For more information about Eurydice, see <http://eacea.ec.europa.eu/eurydice>

The full study

Assuring Quality in Education: Policies and Approaches to School Evaluation in Europe can be found in English on the Eurydice website: http://eacea.ec.europa.eu/education/eurydice/thematic_reports_en.cfm

Printed copies of the report are available upon request at: eacea-surveys@ec.europa.eu

Contact
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Communication and Publications:
+32 2 299 80 58

Eurydice Highlights

Assuring Quality in Education: Policies and Approaches to School Evaluation in Europe



Schools are the basic building blocks of education and training systems and key actors of education policy. School evaluation is an important way to improve school organisation and functioning as well as to enhance the quality of education provision.

Improving the quality of education and training is a constant concern in the policy debate on education both at national and EU level. It is one of the four major objectives for education systems in the strategic framework for European cooperation in education and training (ET 2020).

To assist this process, the report *Assuring Quality in Education: Policies and Approaches to School Evaluation in Europe* takes stock of the structures and organisation of school evaluation at primary and compulsory secondary level education in all EU Member States, as well as Iceland, Norway, the former Yugoslav Republic of Macedonia, and Turkey.

The report examines the two major types of school evaluation: external evaluation, conducted by evaluators who are not directly involved in school activities, and internal evaluation, where most evaluators are members of the examined school's staff. The report contains both country-specific and comparative reviews of school evaluation in Europe and refers to the year 2013/14.

These Highlights provide a snapshot of some of the most important findings in the report.

2

External school evaluation is carried out in 26 European countries

External evaluation of schools is currently carried out in 31 education systems located in 26 countries. External evaluation focuses on the school as an entity and essentially aims to monitor and improve its quality. In most cases, external school evaluation assesses a broad range of school activities, such as educational and management tasks, student outcomes, the quality of teaching, and compliance with regulations. The exact areas monitored differ from one country to the next. In most systems, evaluation criteria are set at central level and outline not only what the external evaluation should focus on but also define what a 'good' school would look like according to a set of standards.

Status of external school evaluation according to central/top level regulations, full-time compulsory general education, 2013/14



Source: Eurydice

The main steps of the external school evaluation process are the same in all European countries

While the scope and range of activities evaluated can differ from one country to the next, the implementation aspects of external school evaluation are very similar across Europe. The process is largely based on a three step approach: (1) preliminary analysis, (2) site visits, and (3) reporting. Six education systems (Denmark, Ireland, the Netherlands, Sweden, the United Kingdom – England and Northern Ireland) incorporate a risk assessment as a very first step with the aim of focusing evaluation efforts on schools that seem to perform below standard or choosing among different typologies of inspection. 'Site visit' are a common pattern to all external school evaluation processes and are meant to provide evaluators with first-hand evidence of school performance and functioning. During such visits evaluators consult school documents, observe teaching practices, and discuss with in-school actors and, if foreseen, with external stakeholders. The third 'reporting' phase consists of preparing a final school evaluation report.

Remedial actions are the most common outcome of external school evaluation

Outcomes of external school evaluation can be slotted into three broad categories: remedial actions, disciplinary actions, and profile-raising actions. Of the three, remedial actions are by far the most common. They aim at addressing weaknesses found or at rectifying breaches in the regulations. In some systems, when remedial actions do not reach their goal, education authorities apply disciplinary measures which can target the school as a whole or in rare cases specific individuals. In six education systems (France, Lithuania, Poland, and the United Kingdom – England, Wales, Northern Ireland) external evaluations are used not only to find flaws in schools performances, but also to identify strengths and good practices, and to make them visible to the larger education community. This profile-raising approach supports a culture of positive feedback, visibility of what works, and can initiate a mechanism of peer-learning with positive returns on the entire education system.

Link: http://eacea.ec.europa.eu/education/eurydice/documents/thematic_reports/178EN_HI.pdf



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External evaluation of education systems within the European Union




Seven education systems do not have a (complete) system of external evaluation of education

- **Croatia**
- Bulgaria – new legal act in 2015 introduced external evaluation
- Greece
- Cyprus (missing only from ISCED1)
- Luxembourg
- Finland
- Norway.

External evaluation of:

- **educational processes**
- **school governance**
- **student outcomes**
- **the quality of teaching**
- **compliance with regulations.**



-  external school evaluation is carried out
-  no external school evaluation is carried out
-  external school evaluation carried out as a piloting phase



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Strategija obrazovanja,
znanosti i tehnologije

OBJECTIVES AND MEASURES FROM THE STRATEGY FOR EDUCATION, SCIENCE AND TECHNOLOGY PERTAINING TO THE CENTRE

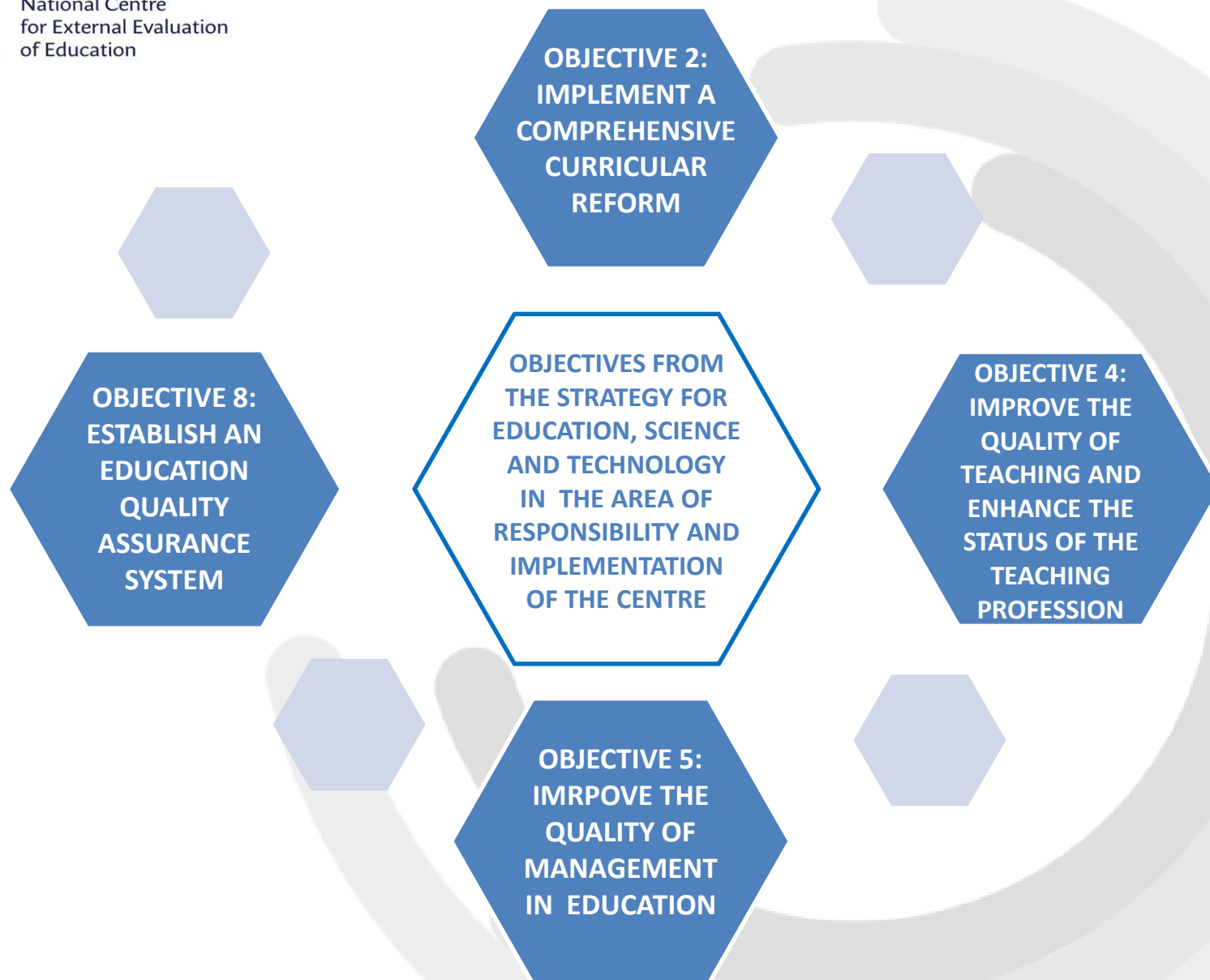


The strategy of education, science and technology on the external evaluation of education

- ✓ In Croatia there is no clearly structured and a coherent education quality assurance system. Neither the evaluation of the quality of system governance nor the monitoring of the efficiency of the agencies operating within the system have been established. There is no **systematic external evaluation of education institutions**, nor has **systematic monitoring of the quality of work of the main stakeholders in the system** (school principals, professionals in early childhood and pre-school education, teachers and other professionals in education) been established.
- ✓ The **outcomes of each education segment need to be clearly defined**, and **quality assurance system** that will monitor the success of educational processes needs to be **established**.



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The Strategy for Education, Science and Technology measures: External evaluation of educational institutions

**2.4. MEASURES FOR A COMPREHENSIVE CURRICULAR REFORM
RELATING TO ALL EDUCATION LEVELS AND TYPES (2.4.7.)**

**2.5. DEVELOPMENT AND INTRODUCTION OF A COMPREHENSIVE
SYSTEM OF ASSESSMENT, GRADING AND REPORTING ON THE
LEVEL OF THE ACQUISITION OF EDUCATIONAL OUTCOMES
(LEARNING OUTCOMES) (from 2.5.2. to 2.5.9.)**

4.1. PROFESSIONALIZATION OF THE TEACHING PROFESSION (4.1.1.)

**4.4. ESTABLISHMENT OF A COMPREHENSIVE SYSTEM OF QUALITY
ASSURANCE OF INITIAL TEACHER EDUCATION AND CONTINUING
PROFESSIONAL DEVELOPMENT (4.4.1., 4.4.2.)**



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The Strategy for Education, Science and Technology measures: External evaluation of educational institutions

**5.4. PREPARATION OF A PRINCIPAL LICENSING PROGRAMME AND
PROCEDURE (5.4.3.)**

**5. EXTERNAL EVALUATION OF EDUCATION INSTITUTIONS
(from 8.5.1. to 8.5.5.)**

**6. EXTERNAL EVALUATION OF LEARNING OUTCOMES
(from 8.6.1. to 8.6.5.)**

**7. ESTABLISHMENT OF A DIGITAL SYSTEM FOR
EVALUATING AND MONITORING THE ACQUISITION
OF LEARNING OUTCOMES (8.7.1.)**



National Centre
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National centre for external evaluation of education

The Centre is a public institution responsible for external evaluation of pre-tertiary education in the Republic of Croatia, including the assessment of student achievement of learning outcomes. i.e. testing.

The objectives of external evaluation:

- ✓ to establish a system for improving the quality of education
- ✓ to establish a system for standardized evaluation of knowledge, skills and competences



National Centre
for External Evaluation
of Education

Identification card

Full name: National Centre for External Evaluation of Education

Short name: the Centre or NEEE

Address: Damira Tomljanovića-Gavrana Street, 10 000 Zagreb

Legal structure: public institution

Founder: The Republic of Croatia

Competent person: Director Maja Jukić, MA in El.Eng.

Date of foundation: 4 March, 2005, Commercial Court of Zagreb

Employees: 39, 5 trainee, 11 employees through contract agencies, 5 – 120 students, more than 3000 expert associates

First employment contract signed: 16 March, 2006

Web: www.ncvvo.hr



Departments and services

Pursuant to the National Centre for External Evaluation of Education Act (Official Gazette, no. 151/2004), the following departments and services were founded:

- ✓ General Administrative Services and Public Relations
- ✓ Research and Development Department
- ✓ IT and Computing Department
- ✓ Publications Department
- ✓ Department for Exams Organization and Administration
- ✓ Department for Certificates and Qualifications
- ✓ Department for Promoting the Quality of Education
- ✓ Finance Services
- ✓ Data Security Service



The centre is in charge of the following activities:

- **conducts all types of external evaluation of learning outcomes** based on national standards, including State Matura
- **produces the methodology for exam preparation**
- produces item banks and **constructs tests**
- produces and publishes working **materials and handbooks for different external evaluation purposes**
- analyzes, statistically processes and **publishes the results of conducted exams**
- issues exam **certificates and diplomas**
- collaborates and aligns its work with **international certification centres** and organizations
- **organizes conducting international exams** and international comparative analyses in education



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The centre is in charge of the following activities:

- conducts **other types of external evaluation** (of educational institutions, experimental programs, licensing and certifying vocational qualifications)
- based on evaluation analyses, offers **suggestions to the Ministry** of Science, Education and Sports for a **continued improvement of the quality of education**
- conducts **research and development activities**
- organizes **seminars for external collaborators** of the Centre
- organizes **seminars** for principals, teachers and the interested expert public **in the area of external evaluation**
- develops and maintains the information system
- **prints and publishes documents** and publications in the area of **external evaluation**
- performs other activities related to **conducting national exams** and external evaluation in education



The EU strategic framework

The EU's priority objectives are:

- long-term economic growth and development
- social inclusion
- employment opportunities



The key factor in accomplishing these objectives is **the quality assurance in education.**

The key objectives of the European Strategic framework – Education & Training 2020 are **improving the quality and efficiency of education.**



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The Strategy for Education, Science and Technology on autonomy and responsibility

- ✓ The Strategy for Education, Science and Technology is based on the fundamental principle of ensuring the **autonomy of all education institutions, as well as the autonomy of their staff.**
- ✓ **Autonomy means taking responsibility** for the outcomes of the education process, validated by a system of self-evaluation and external evaluation.





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Survey among stakeholders in the education system on their collaboration with the Centre

November – December 2014.

The number of people who filled in the *online* questionnaire = 6131

The number of completely filled in *online* questionnaires = 4952

Where are you currently employed?

Type of institution	%
Kindergarten	0.13 %
Primary school	53.81 %
Secondary school	30.67 %
Public (popular) university	0.51 %
Higher-education institution	6.42 %
University	7.28 %
Education agency (AZOO, ASOO, AZVO, AMPEU)	0.09 %
Scientific-research institute	0.44 %
Somewhere else – where?	0.64 %
TOTAL	100.00 %

Have you ever collaborated with the National Centre for External Evaluation of Education?

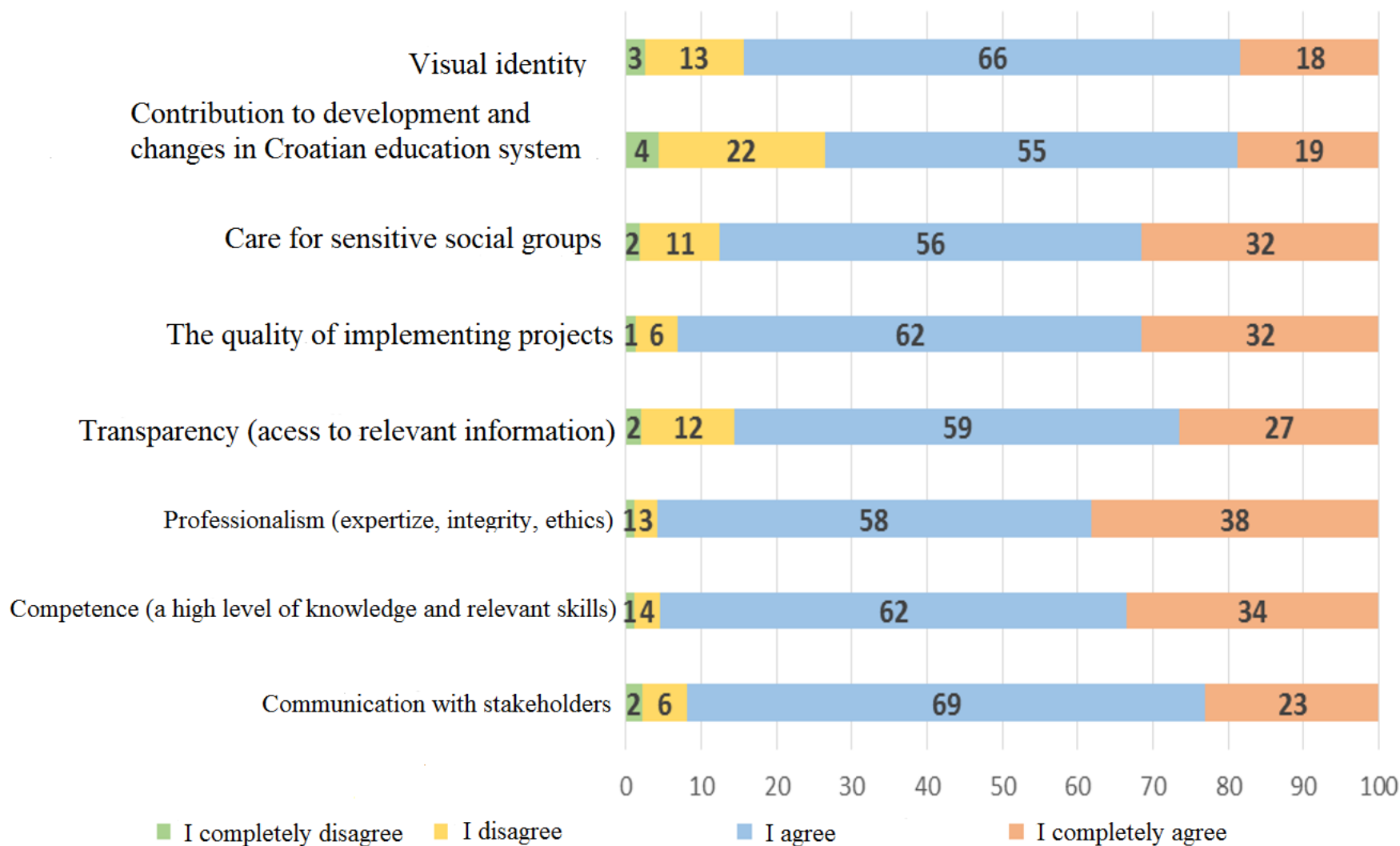
YES	2157	43.56%
NO	2795	56.44%
TOTAL	4952	100.00%



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Survey among stakeholders in the education system on their collaboration with the Centre

Evaluation of collaboration with the Centre – GENERAL ASPECTS

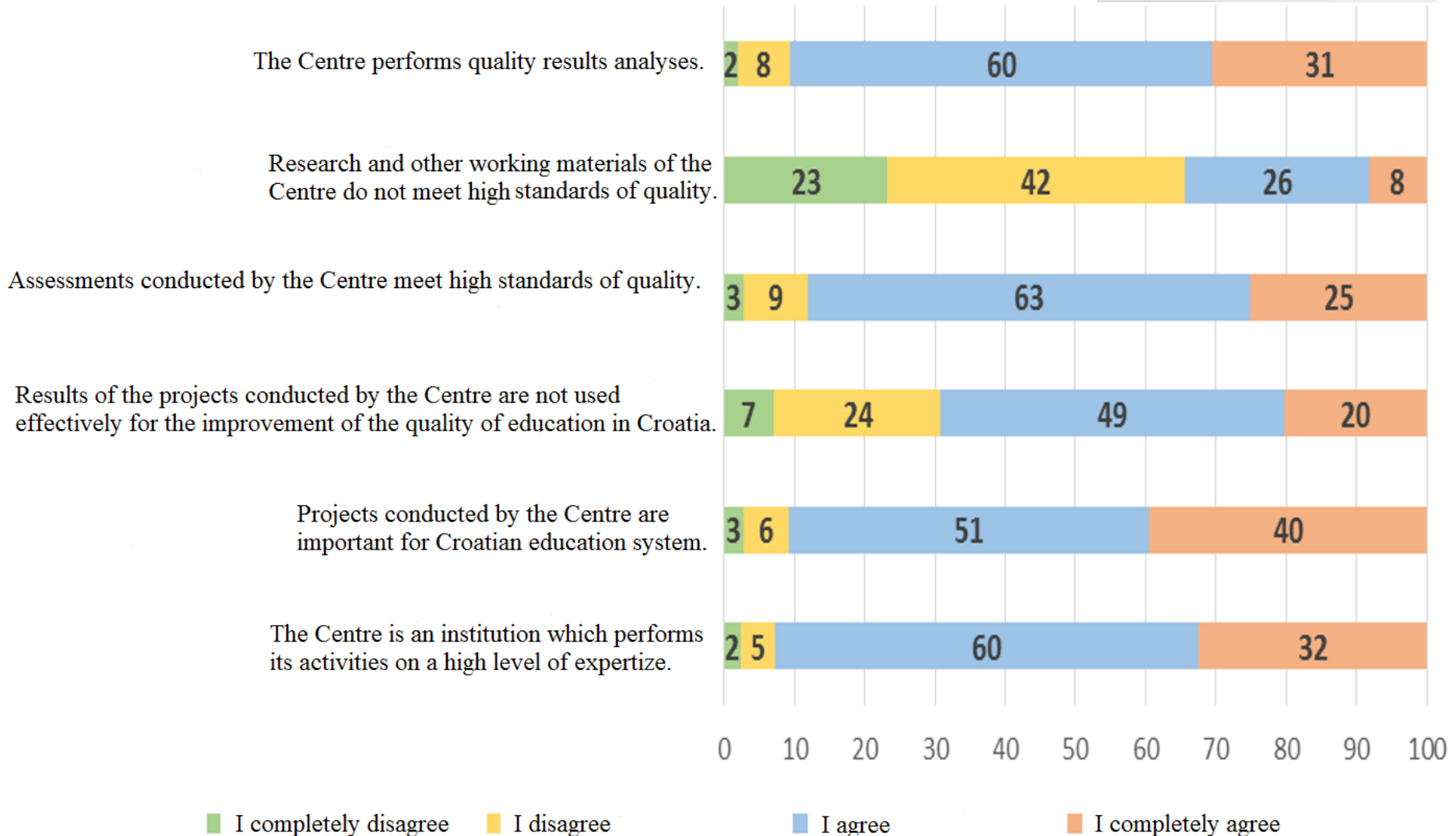




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Survey among stakeholders in the education system on their collaboration with the Centre

Evaluation of the collaboration with the Centre – EXPERTIZE





Qualitative analysis of stakeholders' comments on their collaboration with the Centre

The Centre's strengths	The Centre's weaknesses
improving the quality and monitoring the education system	lack of feedback for teachers and schools
professionalism, quality, objectivity, transparency, good organization, promptness	insufficient or belated information
feedback for teachers and schools	teachers are not paid for their work for the Centre
promoting school self-evaluation	lack of practical application of external evaluation results
high quality and standardization of exams	negative image in the media / data leaks into the media
organizing adult training	policy regarding employment and promotion within the Centre
data accessibility	inadequate web page
reducing parents' pressure on teachers	insufficient financial funds for normal functioning
	assessment of only lower knowledge levels



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The Centre's strategic development

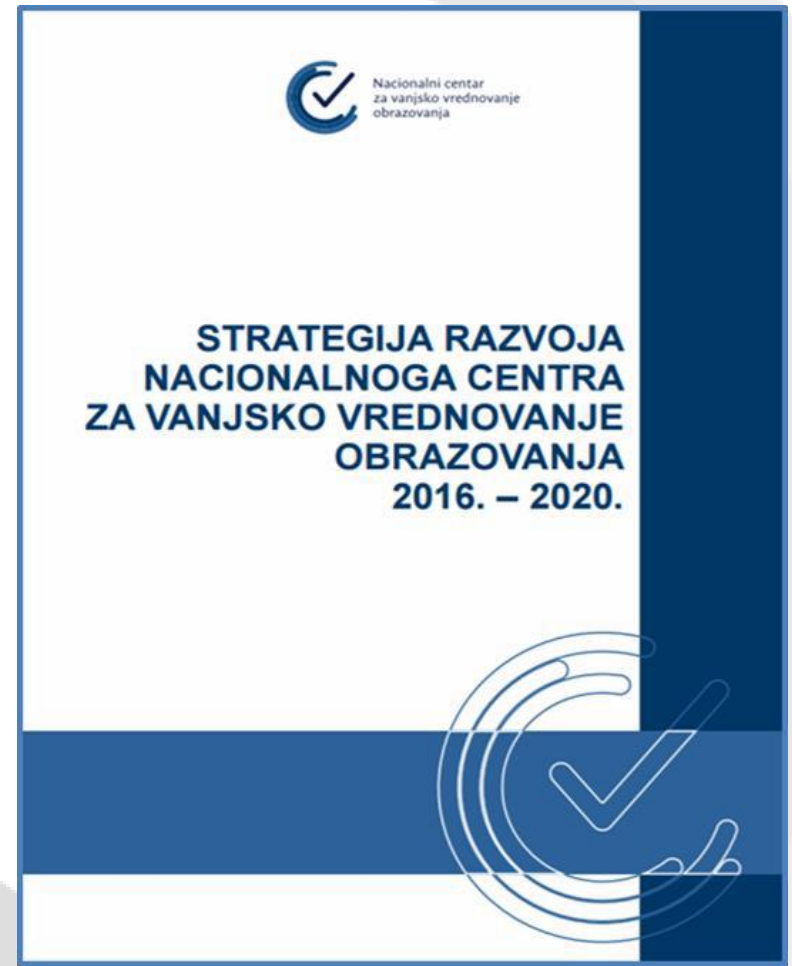
✓ Development Strategy of the
Centre 2016 – 2020

• **The Centre's values**

Our fundamental values are
our source of functioning and
existence.

The values that we deeply
believe in, and that make up an
integral part of our activity are:

- autonomy and responsibility
- professionalism
- objectivity
- collaboration.





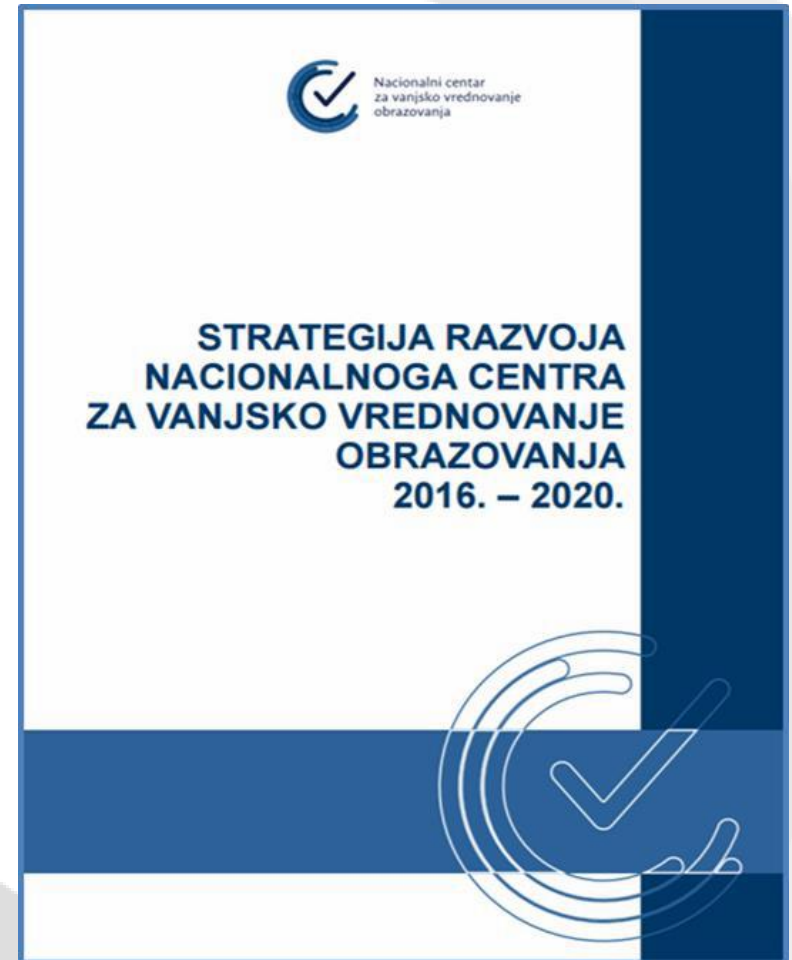
National Centre
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The Centre's strategic development

- ✓ Development Strategy of the Centre 2016 – 2020

- **The Centre's mission**

Our mission is to provide valid and objective monitoring and external evaluation of the national education system, in collaboration with its stakeholders, in order to define and improve the quality of education.





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The Centre's strategic development

We are a leading national and regional, as well as internationally acclaimed institution, which through

- the objective and transparent **external evaluation of learning outcomes**,
- the development and implementation of the system of **external evaluation of education**,
- the **licensing and certification** of key stakeholders in education,
- the **conducting of international research** in education,
- **educating stakeholders** on the quality of education at all levels of the system,
- **research and development** in educational measurement,
- and assuring **self-sustainability** and strengthening **partnerships** with other institutions, **continually promotes and develops the quality of the education system and fosters positive change within it.**

✓ Development Strategy of the Centre 2016 – 2020

• the Centre's vision





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The Centre's strategic development

FIRST CATEGORY OF STRATEGIC OBJECTIVES

AUTONOMY, ORGANIZATION AND SELF-SUSTAINABILITY

SECOND CATEGORY OF STRATEGIC OBJECTIVES

STRENGTHENING AND EXPANDING THE CENTRE'S CORE ACTIVITY

THIRD CATEGORY OF STRATEGIC OBJECTIVES

STRENGTHENING THE CENTRE'S INFLUENCE AND IMPROVING COOPERATION WITH NATIONAL AND INTERNATIONAL INSTITUTIONS



Nacionalni centar
za vanjsko vrednovanje
obrazovanja

**STRATEGIJA RAZVOJA
NACIONALNOGA CENTRA
ZA VANJSKO VREDNOVANJE
OBRAZOVANJA
2016. – 2020.**





Operational plan for achieving the Centre's strategic objectives

Our Operational plan was developed on the level of individual strategic objectives, with:

- ✓ elaborated activities
- ✓ defined stakeholders of activities
- ✓ explicitly stated indicators of success
- ✓ defined deadlines required for implementing individual activities
- ✓ identified necessary resources and
- ✓ identified risks.

Strategic objective 1.7.: Assure continual professional development**** of employees in the area of the Centre's core activity and to prepare for and conduct EU-funded projects					group: I / II / III	priority: 1 / 2 / 3
Activity	Resources*	Deadlines**	Measurable performance indicators	Competent person	Correlation***	Risks
Working unit II.: Defining the Centre's and employees' needs						
1.7.II.a. Defining the Centre's needs for employees' specific competences in accordance with the Centre's development plan	The Centre's development plan, documents on employees' qualifications and professional development, Commission for continual professional development of the Centre's employees	15 March 2017	Document – defined the Centre's needs Documents on employees' qualifications and professional development	Director of the Centre	SC: 1.2., 1.3., 1.4., 1.5., 1.6., 1.12., 2.8. SESS: 8.2. (8.2.4.)	
1.7.II. b. Exploring the educational needs of employees – a poll	Production, implementation, and analysis of the poll – psychologists	15 March 2017	Questionnaire, questionnaire results	Expert advisor of the Department for Promoting the Quality of Education	SESS: 8.2. (8.2.4.)	
1.7.II. c. Aligning the needs for continual professional development of the Centre's employees	The Centre Director, department heads Commission for continual professional development of the Centre's employees	15 April 2017	Document with defined needs (aligned with Rulebook on professional development)	Commission President	SC: 1.2., 1.3., 1.4., 1.5., 1.6., 1.12., 2.8. SESS: 8.2. (8.2.4.)	



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The proposed Centre's long-term priority projects

The Centre's priority projects (cca 7 million Euro):

1. Development of a comprehensive **national system of external evaluation of learning outcomes – the item bank** (2,8 mil Euro)
 2. **External evaluation of education institutions** (1,7 mil Euro)
 3. **Licensing** kindergarten, school and student dormitory **principals** (1 mil Euro)
 4. **Certifying vocational qualifications** in vocational education and training (1,5 mil Euro)
- ✓ Proposals have been made for the model for licensing principals, for external evaluation of education institutions, and for certifying vocational qualifications
 - ✓ Preparatory activities have been undertaken for elaboration of application for those projects, for their funding from the European Social Fund (with technical aid for developing project proposals, funded through European funds)



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Comprehensive system of external evaluation of education

A comprehensive system of external evaluation of education encompasses:

- ✓ External evaluation of **education institutions**
- ✓ External evaluation of **all components of the curriculum**
- ✓ External evaluation of **learning outcomes**
- ✓ **Licensing** teachers, expert collaborators and principals
- ✓ **Certifying** qualifications



The characteristics of the system of external evaluation of education

All forms of external evaluation performed or to be performed by the Centre:

- ✓ are intended as a **continual help to all interested stakeholders in education** for improving their work and results, from the student level to the system levels (with collaboration and synergy)
- ✓ are based on the **principle of trust and mutual respect**
- ✓ involve **the best representatives of the system**, in both developing the external evaluation instruments, as well as their implementation
- ✓ foster the culture of quality, by which **everyone is responsible for the results of their work** in accordance with the results of external evaluation and their continual improvement



The Centre's basic work principles

- 1. Communication and collaboration** with all stakeholders in the Republic of Croatia relevant to quality of pre-tertiary education system in Croatia, as well as their involvement in the development of **a coherent quality assurance of education system** where there has been a **shift from input control (of content and teachers) to the quality assurance process of learning and output (of students and learning outcomes)**
- 2. Detecting the best and the most cooperative persons in the system** (who put the welfare of the system before their personal gain), their licensing and **setting up networks for implementing external evaluation and licensing**



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Državna
matura

State
Matura

International
research

Međunarodna
istraživanja

Project
groups of
the
Centre

External
evaluation

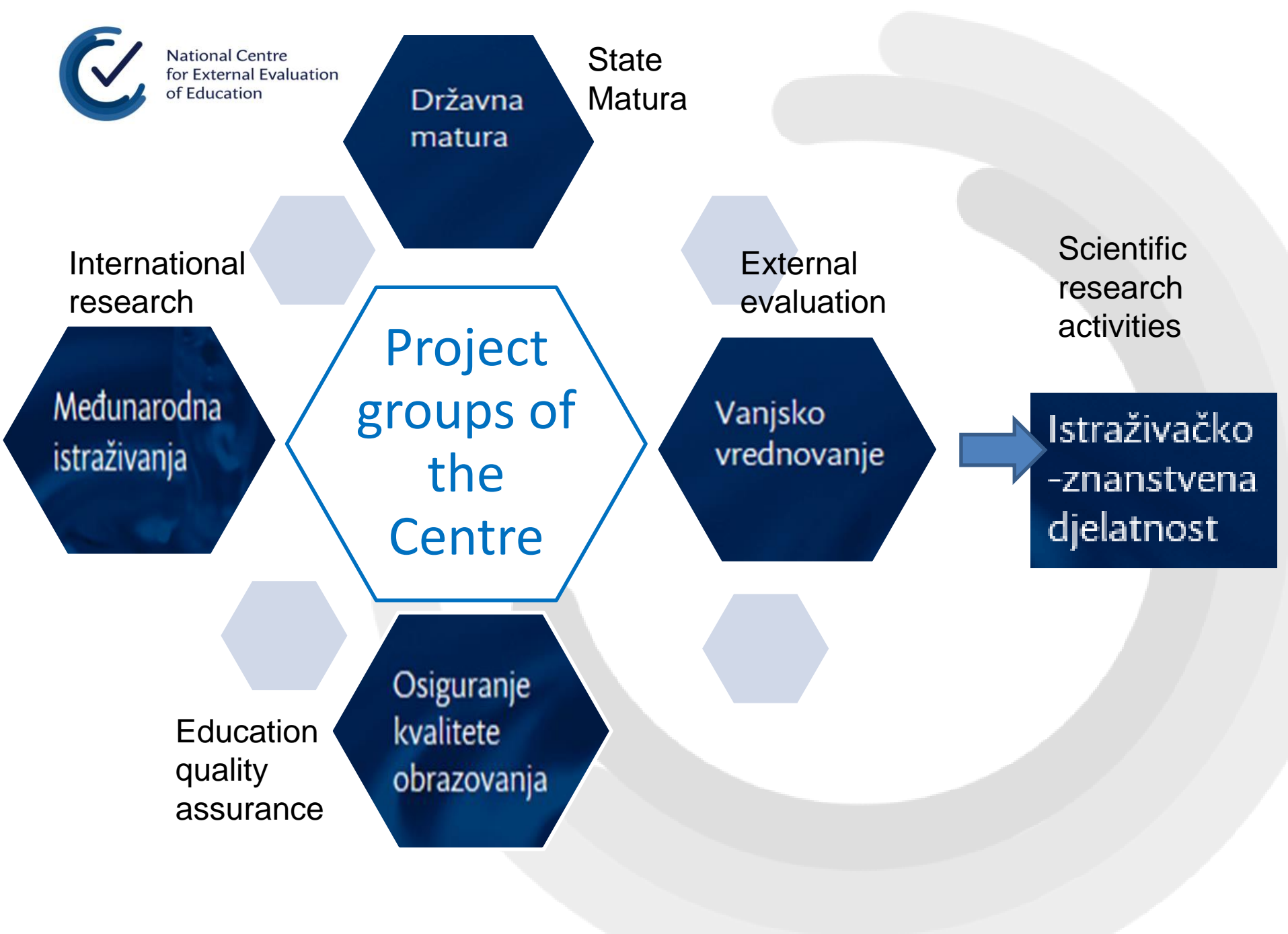
Vanjsko
vrednovanje

Scientific
research
activities

Istraživačko
-znanstvena
djelatnost

Education
quality
assurance

Osiguranje
kvalitete
obrazovanja





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State Matura

- ✓ summative assessment
- ✓ ensures standardized evaluation of knowledge at the end of secondary education
- ✓ has a formative purpose: serves as the basis for improvement of the education system and initiating the process of self-evaluation in schools





State Matura – development path

- ✓ The first scientific elaboration and plan for introducing State Matura in Croatian education system was written by educational experts in 2003.
- ✓ In 2005, Croatian Ministry of Science, Education and Sports established the operative unit with the goal to prepare the entire system for introducing State Matura.
- ✓ The first expert working groups for item construction started work in 2005
- ✓ By 2007, all expert working groups for all subject areas were formed
- ✓ Each expert working group consisted of 4 to 6 members (one university representative plus 3 – 5 experienced teachers)
- ✓ Their first task was to put together examinations catalogues with accompanying learning outcomes



State Matura – development path

- ✓ In 2009, "trial" State Matura was administered
- ✓ Since 2010, State Matura has become a compulsory part of the Croatian education system
- ✓ Throughout the last five years some minor changes have been introduced into the examination system (the majority of them within the last two years)



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State Matura

- ✓ Students sit compulsory and elective exams, which are identical for all students and are administered at the same time.
- ✓ State Matura exams are compulsory for grammar school (*gymnasium*) students, but elective for vocational and art school students attending 4-year programs. If they do not wish to continue their education at university level, their education finishes upon the final paper creation and defence, which is organized and conducted by the school.



State Matura compulsory exams

- ✓ Students take compulsory State Matura exams in Croatian language, Mathematics and a foreign language.
- ✓ Classical grammar school students can choose to take an exam in Latin or Ancient Greek instead in a foreign language, and students educated in the language and script of national minorities can take an exam in an national minority language (in addition to Croatian).



State Matura – elective part

- ✓ Students sit elective exams in the following subjects: Biology, Chemistry, Physics, Psychology, Sociology, Religious education, Art education, Music education, Politics and economy, History, Ethics, Logics, Philosophy and Informatics.
- ✓ Elective State Matura exams in foreign languages (English, German, French, Italian and Spanish) are taken at advanced level. The elective exam in Latin is taken at elementary level.
- ✓ The exam in Greek and all other elective exams have no levels. At enrollment into university programs all elective subjects, regardless of their real level, are valued equally.



Matematika

9. Koji je rezultat sređivanja izraza $\left(\frac{t}{t-1} + \frac{t}{t+1} - \frac{2t}{t^2-1}\right) : \frac{4}{t^2+2t+1}$, gdje je $t \neq \pm 1$?

A. $\frac{t(t+1)}{2}$

B. $\frac{t(t-1)}{2}$

C. $\frac{2}{t(t+1)}$

D. $\frac{2}{t(t-1)}$

- A. ☐
B. ☐
C. ☐
D. ☐

10. Zadana je pravilna četverostrana piramida kojoj duljine svih bridova iznose a cm. Kolika je mjera kuta između baze (osnovke) i strane (pobočke)?

- A. $35^{\circ}15'52''$
B. $45^{\circ}27'12''$
C. $54^{\circ}44'08''$
D. $60^{\circ}12'06''$

- A. ☐
B. ☐
C. ☐
D. ☐

11. Koliko iznosi zbroj rješenja jednadžbe $2(x+5)^3 - 7(x+5)^2 + 7(x+5) - 2 = 0$?

A. $-\frac{33}{2}$

B. $-\frac{31}{2}$

C. $-\frac{25}{2}$

D. $-\frac{23}{2}$

- A. ☐
B. ☐
C. ☐
D. ☐

MAT A D-S004



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Lessons we have learned

Once the procedures and techniques for exam preparation and administration are set, huge efforts are needed to change them

Good communication with all stakeholders within the system is crucial in order to obtain support for improvement and change



The State Matura

- so far, 7 State Matura examinations have been conducted

The aims of State Matura:

- ✓ graduation/school-leaving exam for grammar school students
- ✓ ranking for entry into high education institutions in the Republic of Croatia for all candidates.

State Matura – compulsory subjects

SCHOOL YEAR		2009/2010	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015
NUMBER OF CANDIDATES	Total	33577	32181	33019	33786	33262	36232
	Grammar school	37%	36%	37%	37%	40%	37%
	Vocational school	50%	51%	50%	51%	47%	50%
	Other	13%	13%	13%	12%	13%	13%



The State Matura in the 2015/2016 school year

CANDIDATES DATA

Candidate category	Candidate status	Number of candidates	Percentage of candidates
Regular students	grammar school programmes	19 981	37%
	vocational programmes	17. 638	50%
Regular students – in total		30 619	86%
Other State Matura candidates	finished school after State Matura was introduced	3332	9%
	finished school outside the Republic of Croatia	917	3%
	in adult education	470	1%
	finished school before State Matura was introduced	189	1%
Other candidates – in total		4908	14%
Candidates – in total		35 527	100%



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State Matura in numbers...

- ✓ 28 expert working groups, 101 member
- ✓ 24 translators and 5 text editors for national minority languages
- ✓ 1086 exams adapted for 534 candidates – for all compulsory and 15 elective subjects
- ✓ 115 special needs personal assistants
- ✓ Exam materials comprising 5 400 000 pages of text
- ✓ Packed into 600 000 security bags (4 kinds)
- ✓ 3 deliveries to 378 secondary schools, in 8600 boxes + emergency delivery of 800 essays for Croatian language exam
- ✓ 28 groups trained for scoring (2 – 264 scorers), in total 1159 scorers out of 1361 who applied
- ✓ 19 supervisors supervised the reception of exam materials in 44 schools
- ✓ 75 supervisors supervised the administration of 193 exams in 88 schools
- ✓ Commissions for determining the grades criteria for State Matura comprising 54 expert working group members



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InfoCentre

**info.centar@ncvvo.hr + ik.dm@ncvvo.hr + uplata.dm@ncvvo.h
6077 + 6065 + 2062 e-mails replied to**

01/4501 899

31 296 calls answered

4420 PIN/TAN numbers reissued

**exam cancellation and changes, subsequent cancellations
total: 12 361**





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Administering State Matura examinations to candidates and additional testing





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Boxes arrived from schools and university centres





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Reports on conducted exams sorted according to subjects and schools





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A peek into the scoring process





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Garbage for recycling





Additional tests In 2015/2016 school year

- School of Medicine, University of Zagreb – **1242** candidates
- Faculty of Law, University of Zagreb – **1214** candidates
- Social work – **801** candidates
- Croatian as L2/FL language (B2 level) – **11** candidates



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The centre's research projects in secondary education

ANALYSIS OF COMPULSORY STATE MATURA EXAMS

(Croatian, English, Mathematics)

ANALYSIS OF ELECTIVE STATE MATURA EXAMS

(Biology, Geography, Chemistry and History)

HEALTH CARE EXAM

(in all schools with medical programmes)

EXTERNAL EVALUATION OF NEW VOCATIONAL CURRICULA AND PROGRAMMES

(vocational curricula (24) introduced in the 2013/2014 school year and experimental programmes of vocational gymnasiums (6) introduced in the 2012/2013 school year)

CROATIAN AS A L2/FL EXAM FOR EU AND THIRD COUNTRY NATIONALS WHO WANT TO ENROL INTO CROATIAN UNIVERSITIES (B2 level according to the Common European Framework of Reference for Language)



European Qualifications Framework

- ✓ a reference tool for the comparison between qualification levels of different qualifications systems which connects national qualification systems and serves as a translation tool
- ✓ promotes lifelong learning and equal opportunities in the knowledge-based society
- ✓ integrates the European labour while respecting the rich diversity of national education systems
- ✓ provides quality assurance in education and training
- ✓ promotes the validation of non-formal and informal learning with the aim of increasing participation in lifelong learning and improving entry into the labour market (learning outcomes defined as statements about what a candidate knows, understands and is able to do at the end of the learning process)



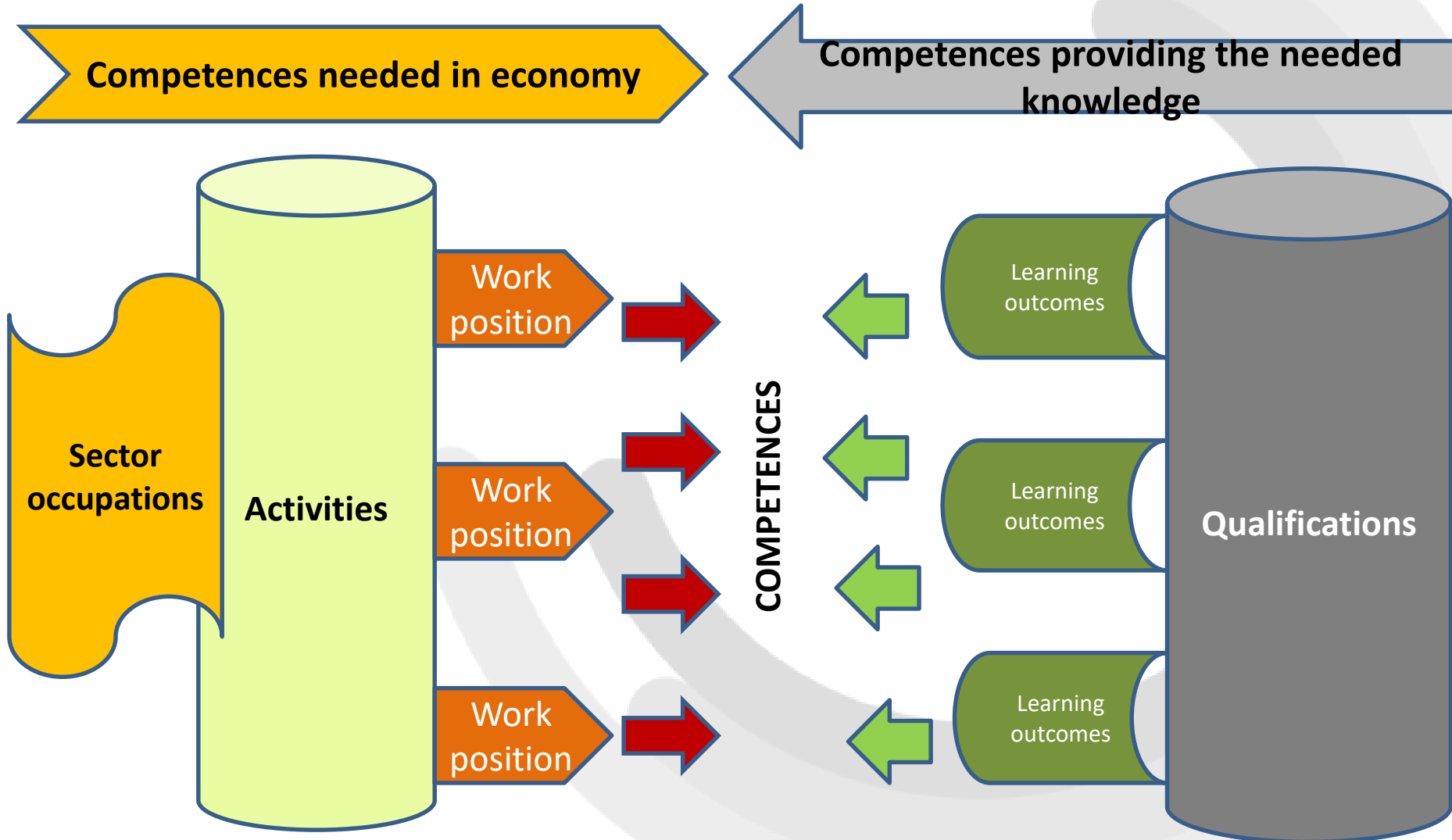
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CROQF – Croatian Qualifications Framework

- ✓ relates learning outcomes acquired in all education institutions and places them in mutual relationships within the Republic of Croatia, as well as on the international level
- ✓ relates the labour market needs with the implementation of educational programs and evaluation of achieved learning outcomes in a more quality way
- ✓ represents an instrument for achievement of a new value in education due to the implementation of new methodology
- ✓ encourages collaboration and attainment of the synergy level among experts in different institutions and companies

The system of aligning educational supply with occupational demand

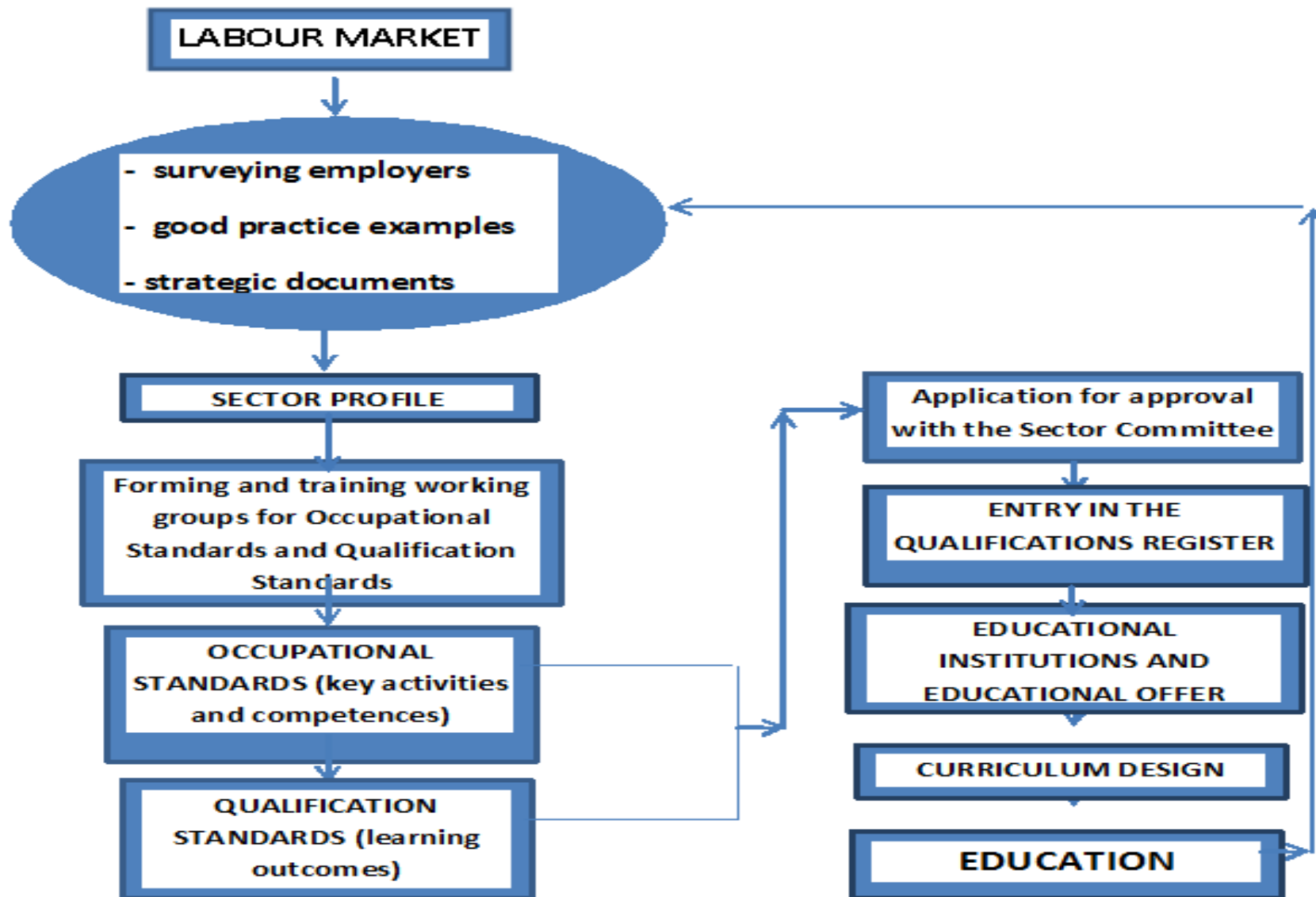
(Sanja Crnković-Pozaić)





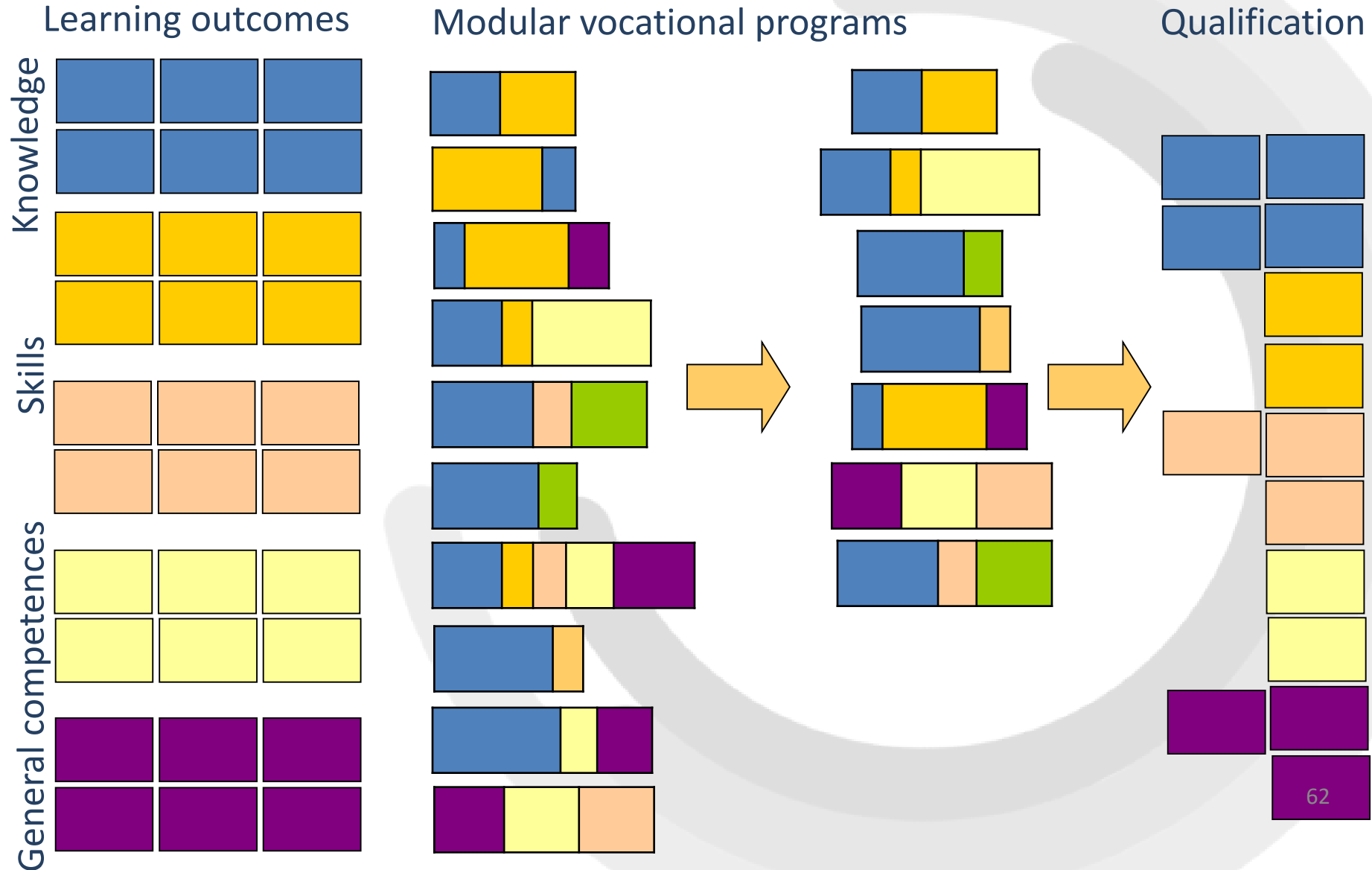
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The Methodology for developing Occupational standards and Qualification standards in accordance with the CROQF





Learning outcomes and qualification





The Centre's activities regarding the CROQF thus far

- Health Care exam has been conducted as a model for certifying vocational qualifications in an external, unitary and objective way.
- **IPA project has been undertaken: Development of the national qualification standard for teachers as a basis for the implementation of a teacher licensing system based on which the document was developed**, defining partial qualification standard for teachers based on the Croatian Qualifications Network, comprising seven learning outcomes and 52 learning outcomes.
- **External evaluation of the experimental implementation of vocational curricula and vocational grammar schools.**



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International education studies

- ✓ **PISA 2015 (OECD)**
- ✓ **PISA 2018 (OECD)**
- ✓ **TALIS 2018 (OECD)**
- ✓ **TIMSS 2015 (IEA)**
- ✓ **TIMSS 2019 (IEA)**
- ✓ **ICCS 2016 (IEA)**

‘ **OECD** – *Organisation for Economic Cooperation and Development*

‘ **IEA** – *International Association for the Evaluation of Educational Achievement*



- ✓ From 3 March 3 to 17 April, 2015, 6754 15-year-old students from 160 schools were assessed (158 secondary schools + 2 primary schools).
- ✓ Assessment modules: science, mathematics and reading literacy, as well as collaborative problem solving; student, school and parent questionnaires
- ✓ 17 316 ISCO responses (on parents' occupation) were coded
- ✓ Results were published on 6 December, 2016



- ✓ The assessment was conducted during May 2015 in **168 primary schools** (130 parent and 38 district schools).
- ✓ **168 principals** participated in the research and filled out online student and school questionnaires
- ✓ **8187 4th-grade students** and their parents/caretakers participated and filled out learning questionnaires.
- ✓ Students filled out **Mathematics and Science** booklets, as well as student questionnaires.
- ✓ **Italian and Serbian national minority** – students participated in the assessment in their mother tongues and writing systems
- ✓ **The results were published on 29 November, 2016**



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TIMSS 2019 and eTIMSS 2019

- ✓ new TIMSS cycle
- ✓ assessment of 4th-grade student's competences in mathematics and science
- ✓ spring 2017 – **piloting the electronic assessment mode on tablets**
- ✓ spring 2018 – **field study**
- ✓ **main study on a nationally representative sample, stratified** according to mother and district schools, as well as according to five regions – in **2019**



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Content analysis of student responses in TIMSS international study and comparison with the national curriculum

The aim is to improve Croatian education system based on objective results obtained through standardized international studies and comparison with the national curriculum for lower primary Mathematics and Science.

Methodological analysis of TIMSS booklets:

- ✓ members of expert working groups analysed items and student responses according to methodological framework
- ✓ based on qualitative analysis of exams and student achievement, a proposal will be put forth for improving the quality of teaching Mathematics and Science



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ICCS 2016 – International civic & citizenship study

Pilot study in May, 2015:

participants: **40** primary schools, **30** of which participated in Civic and citizen education experimental program for the 8th grade of primary school (113 classes in total)

scoring booklets and student questionnaires filled in by **1976 8th grade students**

teacher questionnaire filled in by **599 primary school teachers**

✓ **Main study in April, 2016:**

- ✓ **178** primary schools from all over Croatia participated (229 classes).
- ✓ 30 schools from the field study once again included in the sample (schools which participated in the Civic and citizen education experimental program for the 8th grade of primary schools) – **23** schools continued to implement CCE as a separate subject.
- ✓ **4045 8th-grade students** filled out booklets and questionnaires.
- ✓ about **2500 teachers and 176 principals** filled out on-line questionnaires.

RESULTS will be released at the end of 2017.

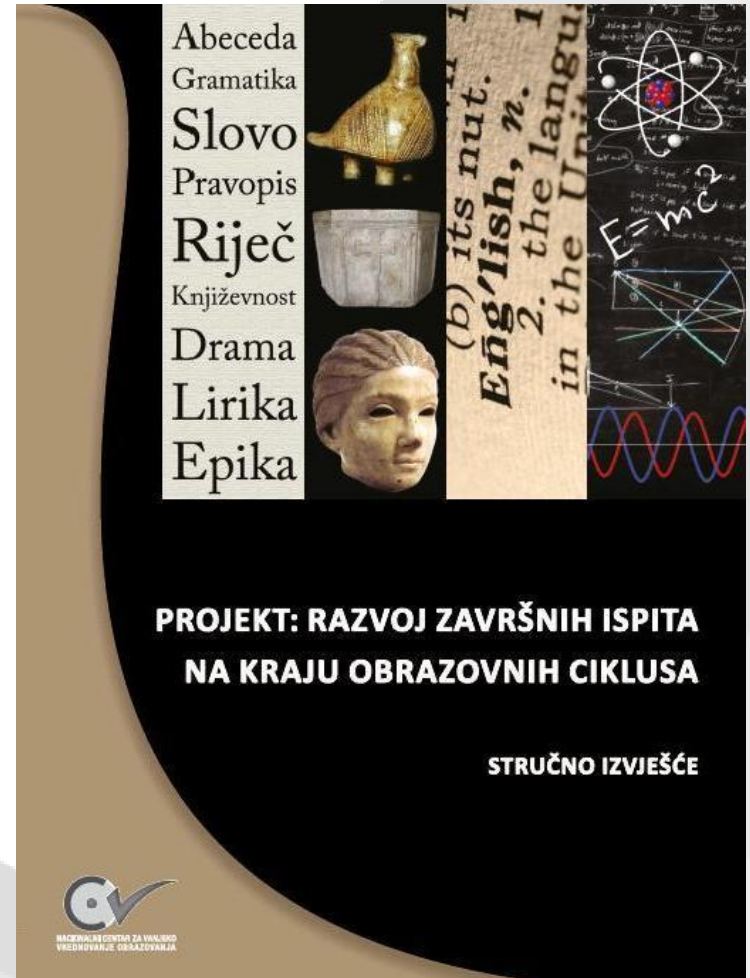


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Other recent projects and activities of the Centre

Project: Development of Final Examinations at the End of Educational Cycles (2011 – 2015)

- ✓ to assess and evaluate the levels of knowledge of Croatian 8th-grade students in Croatian, English, History and Physics
- ✓ publishing final report
- ✓ project-closing conference on 8 December, 2015, and presenting project and assessment results

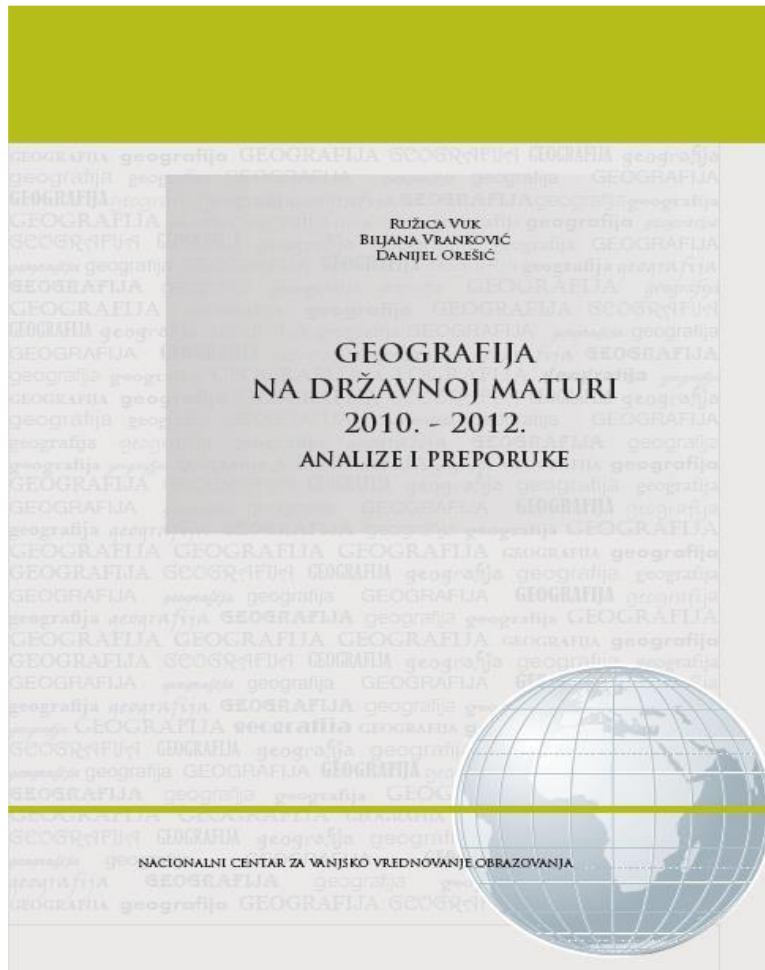




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Qualitative analysis of State Matura Geography exams

- ✓ The analysis of Geography as scientific subject and of grammar school Geography curriculum
- ✓ The analysis of candidates who took State Matura exams in Geography from 2009/2010 to 2011/2012 school years – according to regions, types of school, educational programs etc.
- ✓ The analysis of State Matura exams in Geography from 2009/2010 to 2011/2012 school years – according to item types, cognitive processes levels, and items testing Geography knowledge and skills (e.g. cartographic literacy)
- ✓ Content analysis of specific items – methodological suggestions for improvement of Geography instruction



Self-evaluation of secondary schools 2006 – 2013

IMPLEMENTATION METHODS

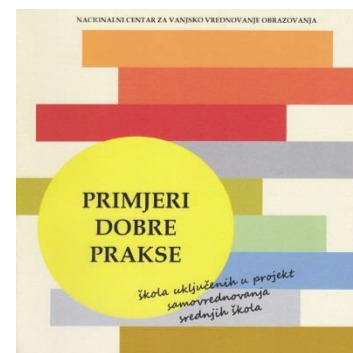
With the help from collaborators in the school self-evaluation support network, schools:

- use the Centre's materials (Self-evaluation Manual, forms...)
- fill in self-evaluation form
- pick collaborators for school self-evaluation support network
- hold meetings and collaborate with collaborators from school self-evaluation support network
- submit reports on held meetings to the Centre

Independently, schools:

- use the Centre's materials (Self-evaluation Manual, forms...)
- Fill in self-evaluation form
- Independently supervise the implementation of the planned development goals (according to the Centre's form).

IZ TISKA ...





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The Centre's new web-site and visual identity



Nacionalni centar
za vanjsko vrednovanje
obrazovanja

Aktualnosti

Državna
matura

Vanjsko
vrednovanje

Osiguravanje
kvalitete
obrazovanja

Međunarodna
istraživanja

Istraživačko
-znanstvena
djelatnost

O nama

Vrednovanjem znanja do kvalitete obrazovanja

Unesite termin i pritisnite enter



Državni stručni skup: Cjelovito vanjsko
vrednovanje – poticaj unapređivanju
kvalitete predtercijarnoga obrazovanja →



Održane radionice o softveru za ispitivanje
Assessment Master →



Rezultati OECD-ova istraživanja PISA 2015
→



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The Centre's business space



National Centre for External Evaluation of Education

Damira Tomljanovića-Gavrana 11 Street

10 020 Zagreb



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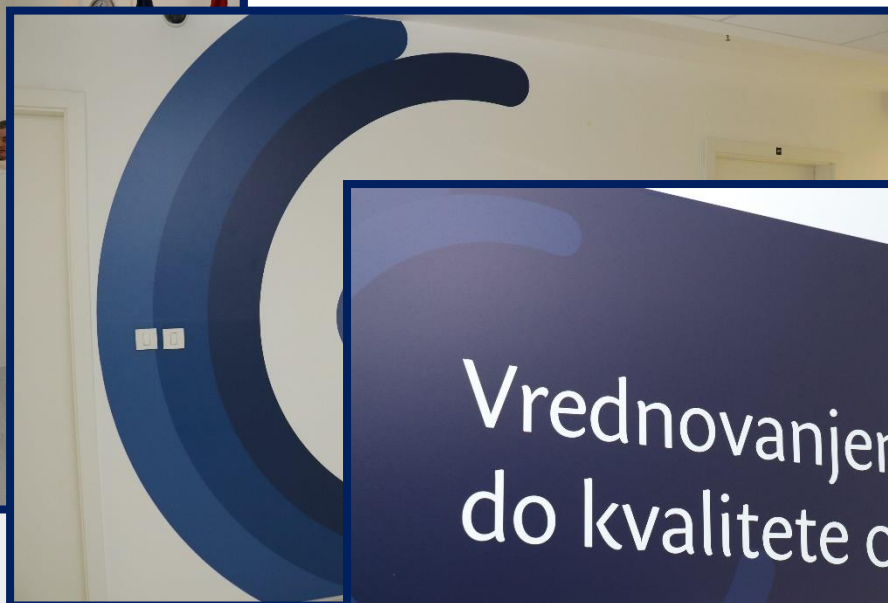
The Centre's business headquarters





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A walk through the Centre





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A walk through the Centre



DRŽAVNI STRUČNI SKUP RAVNATELJA ✓ Opatija, Hrvatska ✓ 20.-22.02.2017. ✓ NCVVO © Sva prava pridržana.



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Thank you for your attention!

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