

# FRAMEWORK FOR DIGITALLY MATURE SCHOOLS

CARNet, Croatia  
E-schools project

University of Zagreb,  
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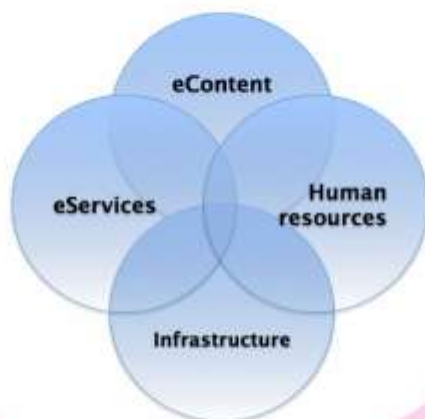
INFOTER CONFERENCIA 2017  
17.-19. October 2017

# eSchools

2015-2022

180 m€ (153m€ from the EU (ERDF, ESF))

**GOAL:** digitally mature schools



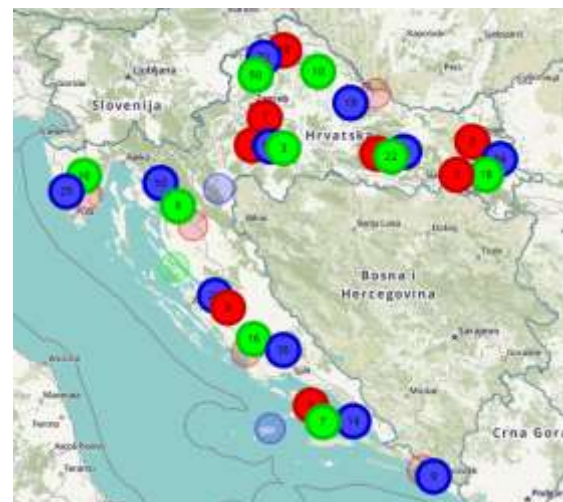
The purpose of the e-Schools pilot project is to establish a system for the development of digitally mature schools

**2nd phase (2019 – 2022)**  
700 schools (50%)

**Pilot phase**  
**(2015 – 2018)**

All the project components on 151 schools (10% schools)

Evaluation and contracting for the 2<sup>nd</sup> phase (2018)



# Introduction



- **Digitally mature schools** - schools with a high level of ICT integration and systematized approach to ICT use in school management and educational processes
- In line with the goals of e-Schools project in Croatia ("**e-Schools: Establishing a System for Developing Digitally Mature Schools (pilot project)**") **we developed:**
  - **Framework for Digitally Mature Schools (FDMS) in Croatia**
  - **Instrument for self-evaluation and external evaluation of schools**
  - **Software supporting FDMS implementation**
- **Framework for Digitally Mature Schools** - needed to enable the **identification of areas and elements that contribute to the digital maturity** as well as for **planning of possible progress in the integration and use of digital technologies.**
- The **self-evaluation and external evaluation** of 151 schools (first phase) and 880 (second phase) in Croatia was performed by using the **instrument and software for** assessing the level of digital maturity of schools in Croatia

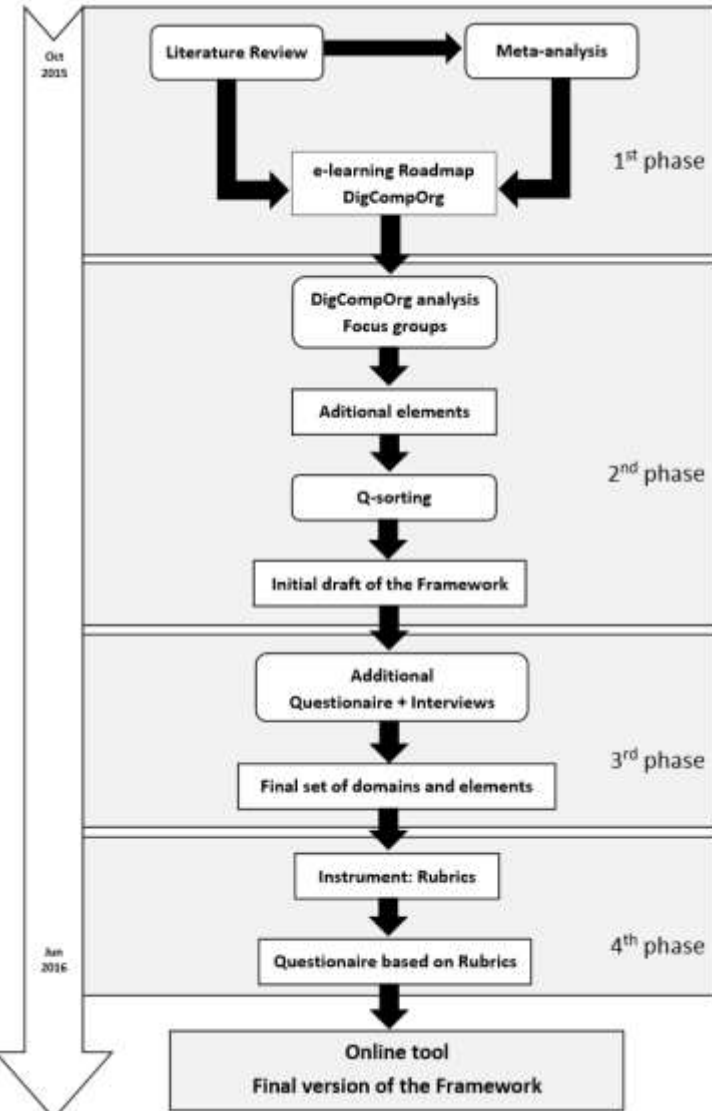


# Framework for Digitally Mature Schools in Croatia - purpose

- **Decision makers** can use FDMS for **identification of areas and elements that contribute to the digital maturity** as well as for planning of possible progress in the integration and use of digital technologies
- The **policy creators and the decision-makers** in the educational system can exploit the FDMS for the **development of policies and initiatives aiming at successful integration of the ICT** into the educational system

- The **schools** can use the FDMS as a **guide when planning and integrating the ICT in learning and teaching**, as well as in their management processes
- Ability of the project activities to raise the digital maturity level; Capacity of the educational system to absorb the project activities in raising digital maturity level of schools
- **Identify strong points and areas for improvement; recommendations for next steps, supporting materials and activities**

# Research methodology



- The qualitative analysis of **15 digital maturity frameworks** was performed
- The analysis revealed **two frameworks / toolkits** - **DigCompOrg** and **eLearning Roadmap** – the best describe the comprehensive field of digital maturity of schools
- sorting cards method and focus groups analysis  
questionnaire, semi-structured interviews



## FIVE LEVELS OF DIGITAL MATURITY OF SCHOOLS IN FDMS

**BASIC**



**INITIAL**



**E-ENABLED**



**E-CONFIDENT**



**E-MATURE**

## AREAS AND ELEMENTS OF THE FDMS



### PLANNING, MANAGEMENT AND LEADERSHIP

- Vision, strategic guidelines and objectives of ICT integration.
- Plan and programme of school development from ICT perspective.
- Managing the integration of ICT in learning and teaching.
- Managing the integration of ICT the school's business activities.
- Learning analytics (LA).
- Regulated access to ICT resources.
- Use of ICT in teaching students with special educational needs.



### ICT IN LEARNING AND TEACHING

- Awareness.
- Planning.
- Use.
- Digital content.
- Evaluation of students.
- Students' experience.
- Special educational needs.



### DEVELOPMENT OF DIGITAL COMPETENCES

- Awareness and participation.
- Planning.
- Purpose of professional training.
- Self-confidence in the use of ICT.
- Digital competences of students.
- Special educational needs.
- Informal learning.



### ICT CULTURE

- Access to ICT resources by educational staff (teachers).
- Access to ICT resources by students.
- Network presence.
- Communication, information and reporting.
- Netiquette.
- Copyright and intellectual property.
- Projects.



### ICT INFRASTRUCTURE

- Planning and procurement.
- Network infrastructure.
- ICT equipment in the school.
- ICT equipment for educational staff (teachers).
- Programme tools in schools.
- Technical support.
- Equipment maintenance.
- Central repository of digital documents and educational content.
- Information security system.
- Licensing control.

# Framework for Digitally Mature Schools - rubric

Rubric for the element “Vision, strategic guidelines and objectives of ICT integration”

	Basic	Initial	e-Enabled	e-Confident	e-Mature
Vision, strategic guidelines and objectives of ICT integration	In the school documents, general vision and strategic guidelines for school development are not defined. The ICT integration in learning and teaching processes as well as in school management processes is not included in the general vision and/or strategic guidelines for the school development. Long-term objectives of the ICT implementation are not defined.	In the school documents, general vision and strategic guidelines for school development are defined. However, the ICT integration in learning and teaching processes as well as in school management processes is not included in the general vision and/or in the strategic guidelines for the school development. Long-term objectives of the ICT implementation are not defined.	In the school documents, general vision and strategic guidelines for school development are defined. This includes the ICT integration in learning and teaching processes as well as in school management processes. Long-term objectives of the ICT implementation are partially defined in the school documents.	In the school documents, general vision and strategic guidelines for school development are defined. ICT integration into learning and teaching processes and school management processes is defined as a separate vision in strategic guidelines. Long-term objectives of the ICT implementation are defined. However, there is no periodic evaluation of effects of the defined long-term ICT implementation objectives.	In the school documents, a general vision and strategic guidelines for school development are defined. ICT integration into learning and teaching processes and school management processes is defined as a separate vision in strategic guidelines. Long-term objectives of the ICT implementation are defined. The school board periodically evaluates the effects of the defined long-term ICT implementation objectives.

# Framework for Digitally Mature Schools - levels

The descriptors indicate the **characteristics of a school on a particular level of digital maturity**



- **Basic** - the school is not aware of the possibility of using ICT
- **Initial** - there is awareness of the possibility to use ICT
- **e-Enabled** - the school is aware of the possibility to use ICT in all its activities, guides the development of its strategic documents and integration of ICT into these documents
- **e-Confident** - the school recognizes the advantages of ICT usage in its activities and integrates the ICT implementation into strategic documents, and in everyday activities
- **e-Mature** - in its strategic documents and development plans, the school very clearly recognizes and requires the use of ICT in all activities.



**Rezultati**  
 U skladu s provedenom samoevaluacijom digitalna zrelost škole koji su sa sobom donose odgovore u pilot projektu. Pristup različitim samoevaluacijama IKT škole u pilot projektu je i dalje omogućen učiteljima na upitnik "Analiza" koji je dostupan nakon prijave u sustav.

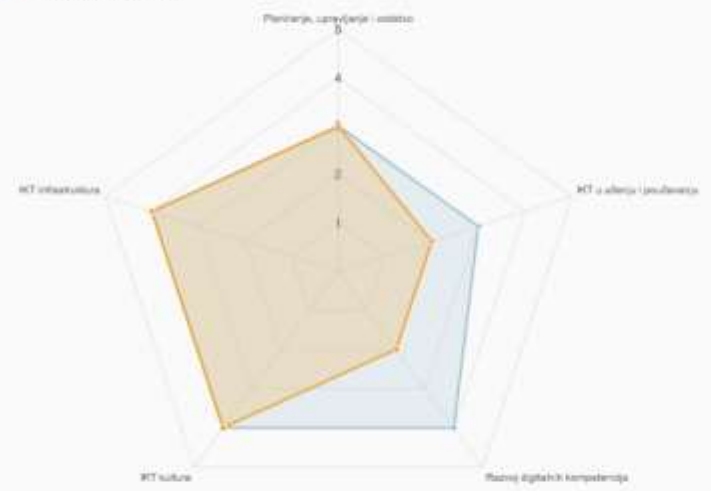
**Upitnik za samovrednovanje digitalne zrelosti škola**  
 Upute za škole koje nisu uključene u pilot projekt

Upitnik je dostupan nakon prijave u sustav!



[Grafčki prikaz](#) [Tablični prikaz](#)

■ Rezultat samoevaluacije  
 ■ Rezultat vanjske evaluacije



GRUPACIJA	DIGITALNO NEOSVJESŦENA 1	DIGITALNA POČETNA 2	DIGITALNO OSPOSOBLJENA 3	DIGITALNO NAPREDNA 4	DIGITALNO ZRELA 5
IZJAVA, STRATEŠKE SVJERNICE I CILJEVI...	Orange	Blue	Grey	Grey	Grey
PLANIRANJE RAZVOJA ŠKOLE S ASPEK...	Grey	Grey	Blue	Orange	Grey
UPRVLJANJE INTEGRACIJOM IKT-A U U...	Grey	Grey	Orange	Grey	Blue
UPRVLJANJE INTEGRACIJOM IKT-A U P...	Grey	Grey	Blue	Grey	Grey
UPRVLJANJE PODACIMA PRIKUPLJENI...	Grey	Grey	Orange	Grey	Grey
REGULIRANI PRISTUP IKT RESURSIMA	Grey	Grey	Orange	Blue	Grey
PRIMJENA IKT-A U POUČAVANJU UČEN...	Grey	Grey	Orange	Blue	Grey

**Analiza vanjske evaluacije**

**Analiza samoevaluacije**

Analizom rezultata vanjske evaluacije po svim domenama vi ste na razini **(3)**  
**Digitalno osposobljena**

**Karakteristike razine:**

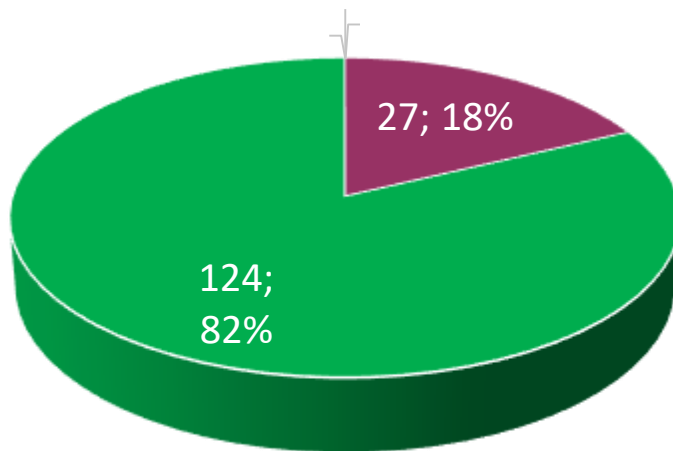
Škola je svjesna mogućnosti korištenja IKT-a u svim aspektima poslovanja, te se u tom smjeru i razvijaju strateški dokumenti i praksa, IKT se koristi i za rad s učenicima s posebnim odgojno-obrazovnim potrebama. Djelatnici razvijaju vlastite digitalne kompetencije, digitalne sadržaje i počinju uvoditi inovativne načine poučavanja. Postoje tragovi manjih projekata orijentiranih na IKT. Pristup različitim IKT resursima je moguć u većini učionica, a postoje i zajednički periferni uređaji za odgojno-obrazovne djelatnike. Vodi se računa o održavanju opreme i kontroli licenciranja programskih proizvoda. Škola je aktivna online u smislu prezentacije sadržaja i komunikacije.

- [Planiranje, upravljanje i vodstvo](#) iDetaljnije
- [IKT u učenju i poučavanju](#) iDetaljnije
- [Razvoj digitalnih kompetencija](#) iDetaljnije
- [IKT kultura](#) iDetaljnije
- [IKT infrastruktura](#) iDetaljnije

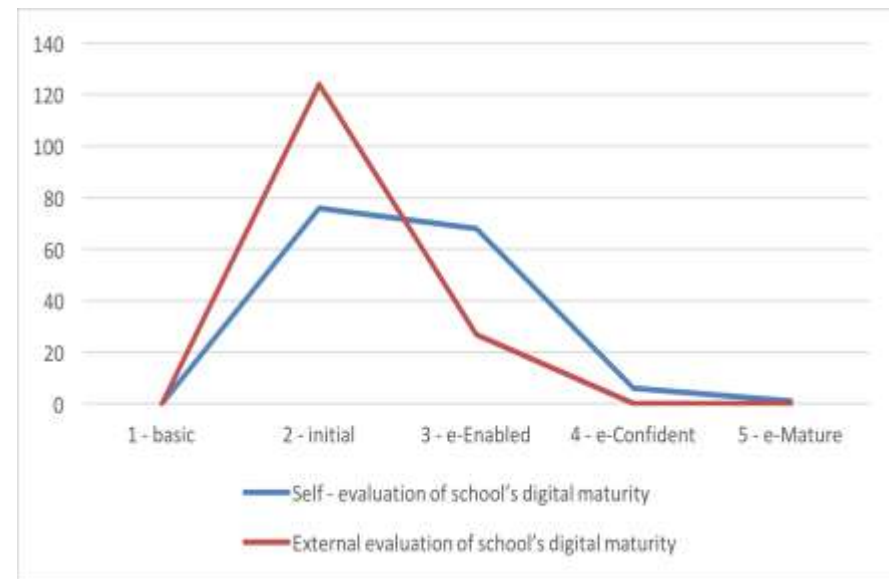
Presentation of the self-evaluation and external evaluation results and recommendations

# Results of self-evaluation and external evaluation of school's digital maturity

- 124 schools – initial level; 27 schools – e-Enabled



External evaluation of primary and secondary schools (N=151)

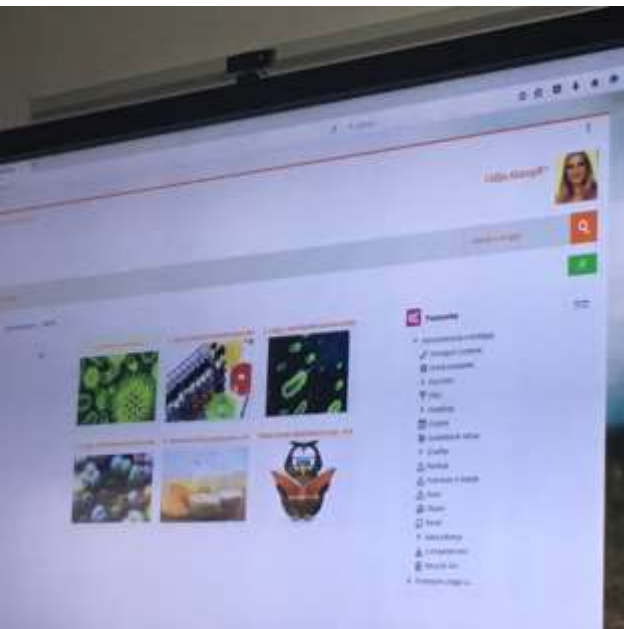


# Primary school – Croatia

## Initial level



# Secondary school – Croatia e-confident



# Primary school – Ireland digital mature (e-Learning roadmap)



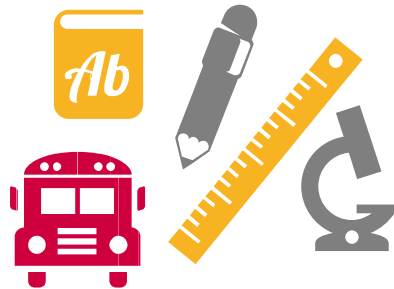
# Conclusion

- The Framework for Digitally Mature Schools, the accompanying Instrument for evaluation of the digitally mature schools and the supporting software - represent a unique and comprehensive tool set created according to research methodology
- The FDMS, the Instrument and the accompanying software - **already successfully applied in the process of self-evaluation and external evaluation of 151 schools in Croatia**
- The significant feedback for improvement of the FDMS and of the Instrument was collected in this validation process
- The evaluation of further 1400 elementary and high-schools in Croatia is in the process.

- Schools will receive:
  - Equipment
  - Workshops
  - Education programmes
- Additional round of evaluation – March 2018.



**Thank you for  
your attention !**



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