



Regione Toscana

Diritti Valori Innovazione Sostenibilità

TUSCAN REGIONAL SPECIALIZATION PLATFORM «TECHNOLOGIES, CULTURAL HERITAGE & CULTURE»: APPLIED RESEARCH PATHS TO BOOST INNOVATION IN CCIs

RICC Annual Event, Bxl 24/6/2019

EU Liaison Office of Tuscany Region in Brussels

Mariachiara Esposito
mariachiara.esposito@regione.toscana.it



Platform “Technologies, Cultural Heritage and Culture”

Research & Innovation Smart Specialization Strategy (RIS 3) approved in 2015 and reviewed in 2019 (February) .

In 2017 the Regional Specialization **Platform «Technologies, Cultural Heritage and Culture»** was established (DGR 815 /2017).

Members of the Platform:

- ▶ Tuscany Region - Directorate of Culture and Research ;
- ▶ IRPET - Regional Institute for Economic Planning of Tuscany ;
- ▶ University Departments, Higher Education Schools and Research Centres competent in the field ;
- ▶ Companies active in the sector ;
- ▶ Experts on the topic, gathered in a temporary Advisory Board.

Main goals:

- ▶ to bring out the needs for innovation and research in the field of cultural heritage in terms of **preservation, management and enhancement**;
- ▶ to promote, through technological innovation applied to material and immaterial cultural heritage, a **new model of social and economic development**, based on quality of life and productions **with high cultural and creative content**.



New Technologies and Cultural Heritage: Expected Effects

FIELD: PRESERVATION, MONITORING, RESTORATION

EXPECTED EFFECTS: REDUCTION OF COSTS,
LASTING RESULTS , GREATER ECONOMIC
SUSTAINABILITY THANKS TO COSTS REDUCTION

FIELD: DEVELOPMENT OF NEW ARTISTIC COMMUNICATIVE FORMS

EXPECTED EFFECTS: EVOLUTION OF
COMMUNICATION MODELS DEVELOPED BY
CULTURAL INSTITUTIONS , WITH AN IMPACT ALSO
ON PRODUCTION PROCESSES



FIELD: NEW PROFESSIONS' DEVELOPMENT

EXPECTED EFFECTS: SWITCH FROM
RADITIONAL TO MORE INNOVATIVE AND
SKILLED PROFILES

FIELD: AUDIENCE DEVELOPMENT, EDUTAINMENT

EXPECTED EFFECTS: NEW MARKETS , NEW USERS ,
INCREASING USER LOYALTY, INCREASING ECONOMIC
AND SOCIAL SUSTAINABILITY THANKS TO GROWTH
AND SOCIAL COHESION.

MAIN TECHNOLOGICAL TRENDS 2018 (GARTNER INSTITUTE)

1. ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING (FLEXIBILITY, CUSTOMIZATION)
2. DIGITIZATION, AUTOMATION (IMMERSIVE ENVIRONMENTS, CONSERVATION)
3. NETWORKS AND PLATFORMS (SERVICE ORGANIZATION, RESOURCE SHARING)

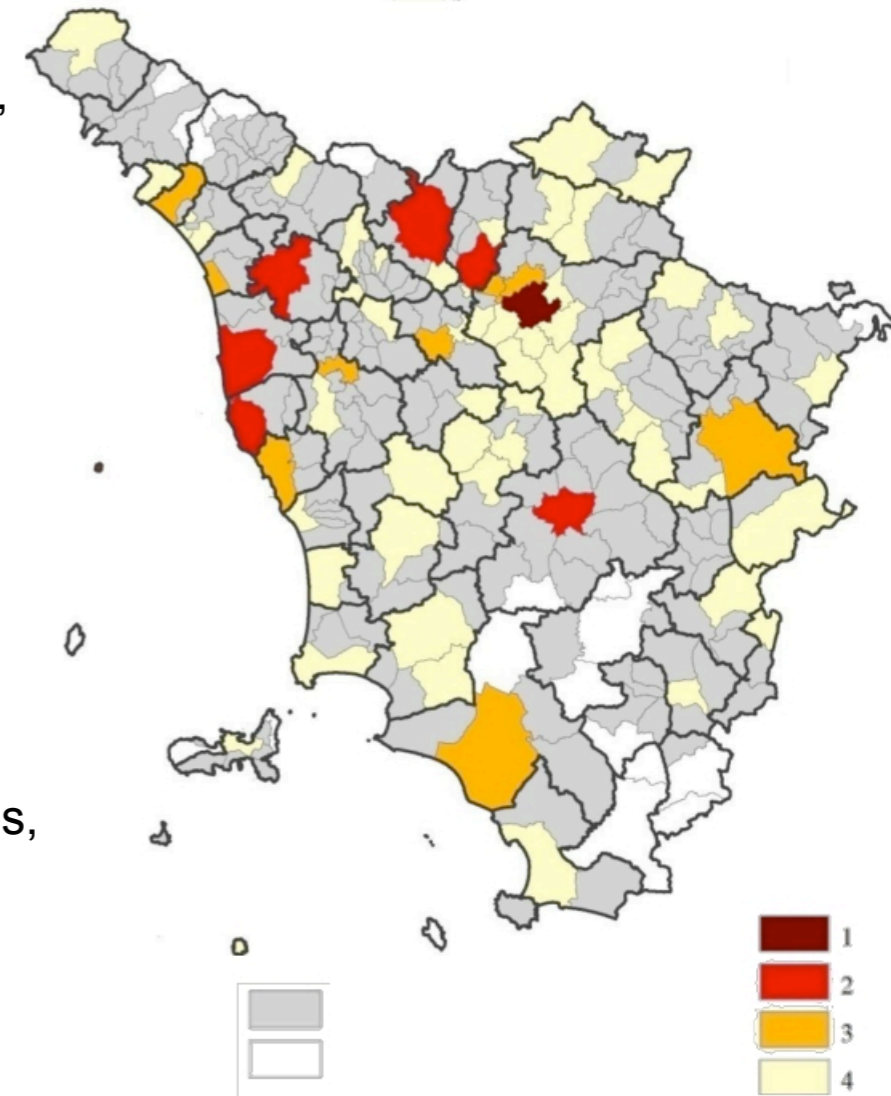


Mapping of CCIs and HE offer on Culture in Tuscany

The Platform allowed the **emergence of innovation and technological needs** of the cultural field.

Working method :

- 1) Mapping regional offer of cultural heritage (national and regional museums, archaeological areas, Unesco sites, historical theatres, libraries, etc)
- 2) Mapping regional offer of higher education and specialized training related to cultural heritage (restoration schools, chemistry and physics departments, etc)
- 3) Mapping regional companies active in fields related to cultural heritage (restoration, managing, ICT)
- 4) Analysis of the sector's literature and of the most recent policy documents
- 5) Interviews to industry/institutional key players (museums, libraries, etc)
- 6) Online questionnaire to stakeholders (Universities, Research centres, companies, museums, etc)
- 7) Final discussion among the members of the Regional Specialization Platform«Technologies, Cultural Heritage and Culture»
- 8) Designing “Roadmaps” for technological upgrading and enhancement of cultural heritage





The Roadmaps for Research and Technology Transfer in Culture

ROADMAP 1	ROADMAP 2	ROADMAP 3
Title/Goal		
SUSTAINABLE FRUITION OF CULTURAL HERITAGE , SOCIAL INCLUSION AND WELL-BEING THROUGH CULTURE	VALORISATION OF SKILLS IN THE CULTURAL VALUE CHAIN	KNOWLEDGE AND CONSERVATION OF CULTURAL HERITAGE
Technologies		
ICT PHOTONICS, MICRO AND NANO - ELECTRONICS	PLATFORMS ADVANCED MATERIALS OTHER INNOVATION	ICT PHOTONICS NANO AND BIO -TECHNOLOGIES, ADV MATERIALS



Cleaning of the Marble Facade of the BAPTISTERY OF SAN GIOVANNI in Florence

THE LASER WORKS PERFECTLY ON
THIS KIND OF MARBLE DECORATION

LASER IS ABLE TO WORK
EVERYWHERE, EVEN IN LITTLE
INTERSTICES



- ✓ Easy to use: after setting every restorer can use it with the safety equipment;
- ✓ Non invasive cleaning: no pressure on the stone, no mechanical action on the materials
- ✓ When the geometry of the monument is really complex



Call for Research Grants on Culture and CCIs

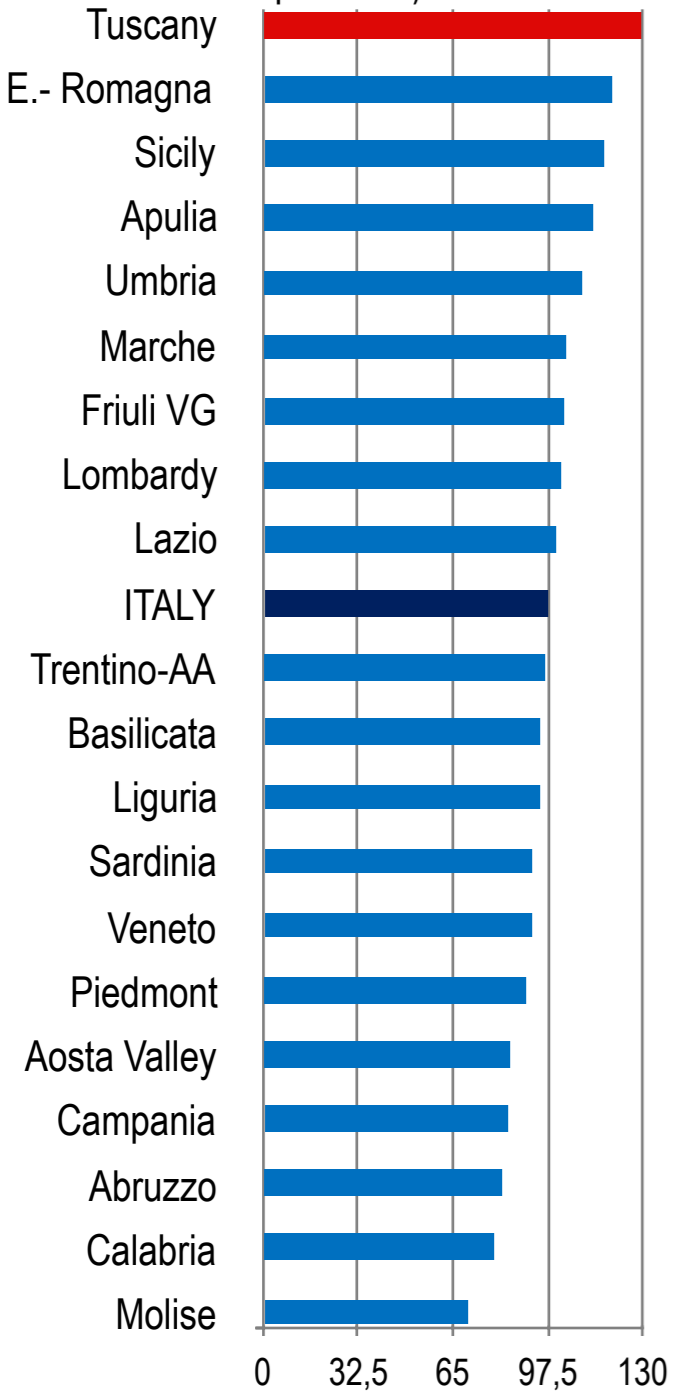
- ▶ Financing **high-level training paths** through research applied to Technologies – Cultural Heritage and Culture” and industry 4.0 paradigm, in order to integrate:
 - * theoretical knowledge
with the acquisition of
 - * skills in specific applied/working contexts
- ▶ **Support research careers** not only in the academic environment, but also in the regional productive system (at least 50% of the time spent on research must be carried out within CCIs regional operators)
- ▶ Develop **relationships between Universities/Research Centres and operators in regional cultural and creative industries (CCIs)**, for better access to culture
- ▶ Encourage the **modernization of the actors operating in regional CCIs**, favoring the adoption of more effective, efficient and sustainable
 - * management systems
 - * conservation/preservation practices
 - * promotion/fruition modelacross the cultural heritage and the performing arts’ regional system
- ▶ **Promote innovation** through technological, organizational and methodological solutions



Call for Research Grants on Culture and CCIs

SYNTHETIC INDEX OF CULTURAL TERRITORIAL COVERAGE

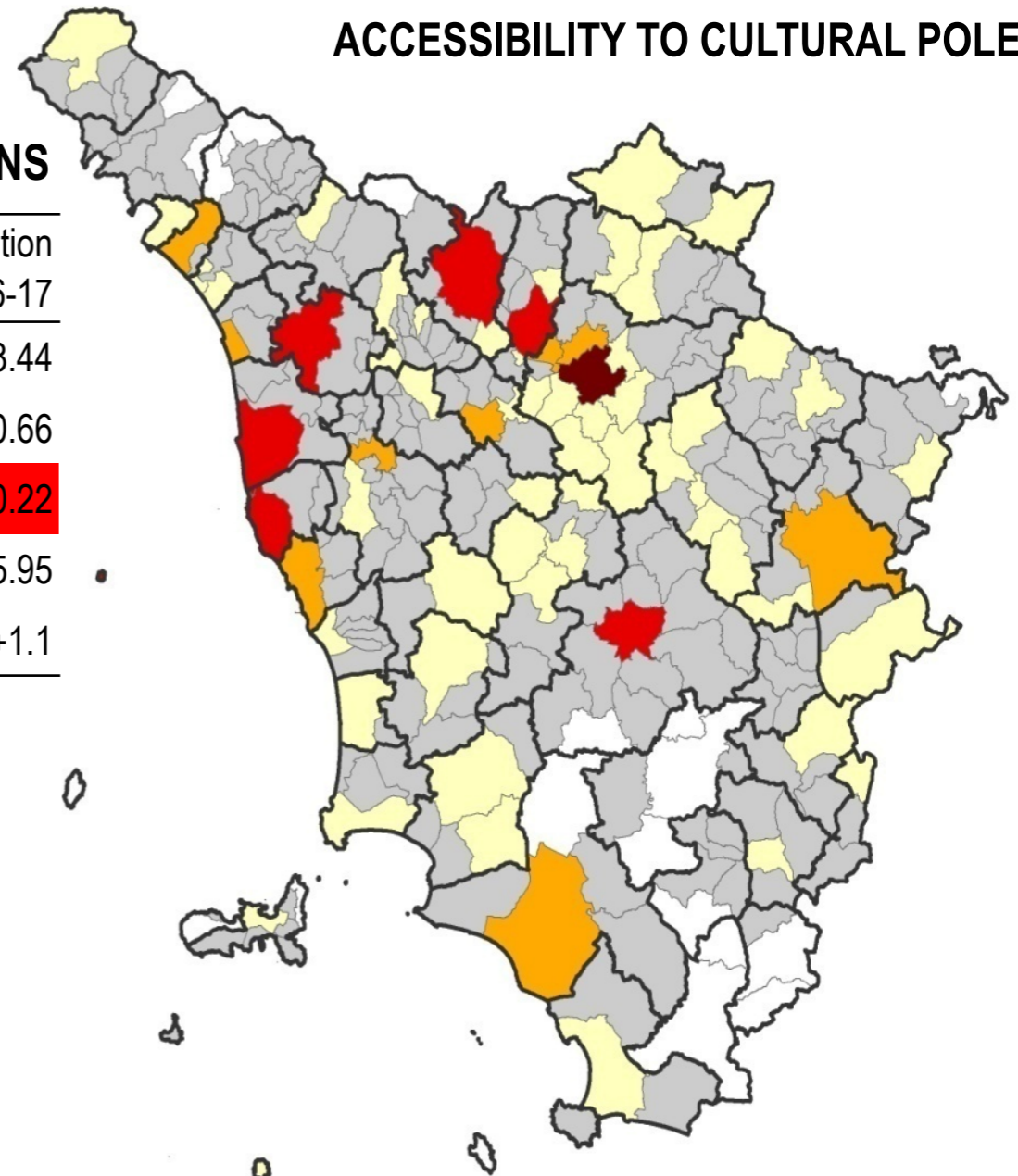
(% of municipalities equipped with theatre, cinema, library and philharmonic)



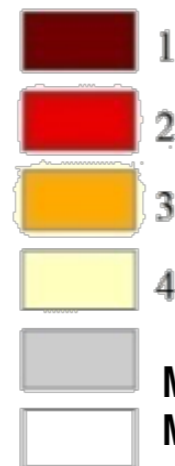
MUSEUM VISITORS BY MAIN REGIONS

Regions	Visitors 2017	% Variation 2016-17
Lazio	23,047,225	+13.44
Campania	8,782,715	+10.66
Tuscany	7,042,018	+10.22
Piedmont	2,610,737	+5.95
Lombardy	1,850,605	+1.1

ACCESSIBILITY TO CULTURAL POLES



CULTURAL POLES RANKING



Municipalities reaching a pole within 30'
Municipalities NOT reaching a pole within 30'

Only 1,3% of population does not reach a cultural pole within 30 minutes



Cultural and Creative Industries in Partnership with R&I

Proponents...

Universities, Tuscan Research Centres, Schools

... in **mandatory collaboration** with

Actors operating in CCI at the regional level

CCIs who they are:

- State Libraries and State Archives
- Libraries, Archives, Institutions and other subjects adhering to the tuscan documentary network
- National and regional cultural institutions
- Museums, museum networks and ecomuseums
- Organizations managing regional Unesco Sites
- Operators recognized as entities of regional importance in live shows/performing arts

Expected Impact:

audience, number of visitors,
sustainability of the economic system
connected to CCI operators.

What does Tuscan Region finance?

Up to 90% co-financing of the research grant tot. amount

Two-years grants - annual amount of 27.000 €



Regione Toscana

Diritti Valori Innovazione Sostenibilità

**THANK YOU FOR THE ATTENTION...
and stay in touch!!! :-)**