

# THE MEASUREMENT AND EVALUATION OF UNIVERSITIES' THIRD MISSION ACTIVITIES IN ITALY.

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(ANVUR)



# *Outline*

- Institutional Context
- Evaluation path
- The experience in VQR 2011-2014
- Some results
- Critical issues and next challenges

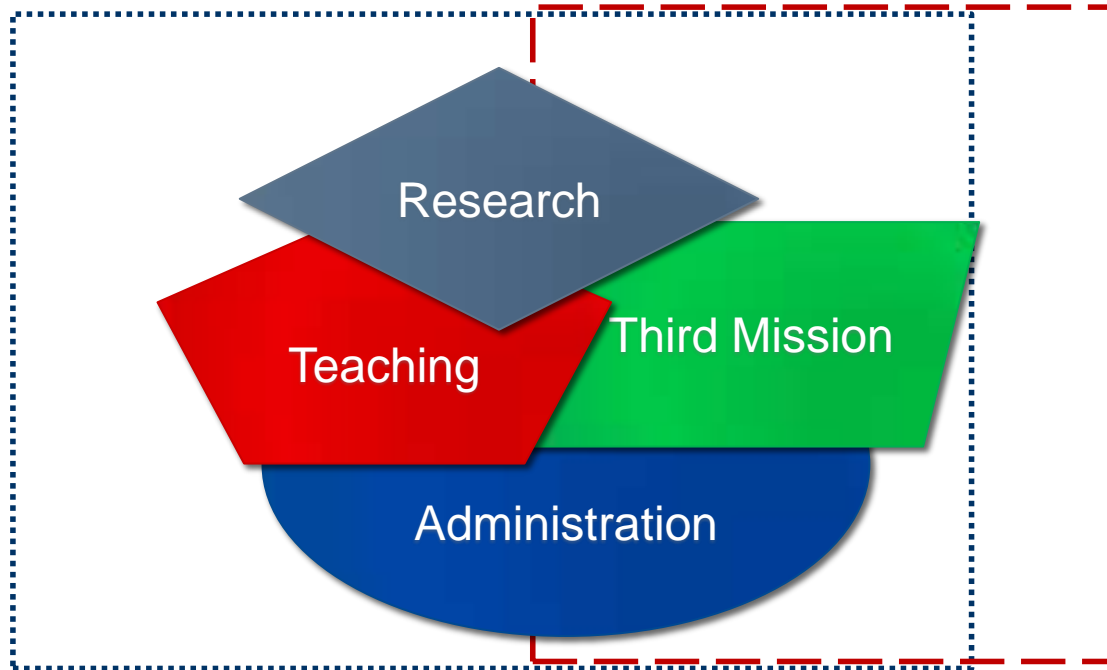
# ANVUR - mission

- National Agency for the Evaluation of Universities and Research Institutes
- Presidential Decree 76/2010 (art. 3, par.1): «to evaluate the quality of processes, results and products of management, teaching, research, including **technology transfer activities**»
- Evaluation of the Third Mission of **Universities** and **Research Institutions**

# ANVUR: mission

*Universities*

*Research Institutions*



# TM evaluation

- Evaluation of Research Quality (VQR) is the assessment of the quality of the outcomes of the research of:
  - Universities
  - Research Institutions supervised by MIUR
  - private institutions that voluntarily submit their research outcome
- VQR 2004-2010 (VQR 1)
- VQR 2011-2014 (VQR 2)

# What we mean for third mission

**DEF:** *the openness of the University towards the socio-economic context through the valorization and transfer of knowledge.*

TM is a process of knowledge transfer, not only related to technology and encompassing social and cultural benefits (production of public goods)

# TM evaluation

## Evaluation of Research Quality VQR 2004-2010

- definition of a set of indicators based on counting (number of spin-off companies,...) built on data from HEIs internal monitoring systems (no central data collection system): *need for more reliable data and definition refinement*

## Evaluation of Research Quality VQR 2011-2014

- building of a central data collection system
- integration with quali-quantitative indicators (spin-off companies' revenues and employees, ...)
- development of the informed peer review model (publication of the Evaluation Manual): *need for metrics on impact and a more context-based evaluation model*

2011 ▶▶

▶▶ 2019

### VQR 2004-2010

- Total revenues from **third party contracts**
- No. of granted **patents** owned by the university
- No. of **spin-off companies**
- No. of **incubators**
- No. of **technology transfer consortia and associations**
- No. of **archaeological excavations**
- No. of **museums**
- No. of **other third mission activities**

**ONE FINAL INDICATOR FOR THIRD MISSION**

**group of experts (data, evaluation, indicators)**

**two international workshops**

**consultation of the academic community**

### VQR 2011-2014

- **central data collection system**
- **definition of evaluation method (informed peer review)**
- **publication of ANVUR TM Evaluation Manual**
- **institution of a TM Evaluation Panel**

**FINAL REPORT ON THIRD MISSION**

**group of experts (metrics on impact and relevance of context)**

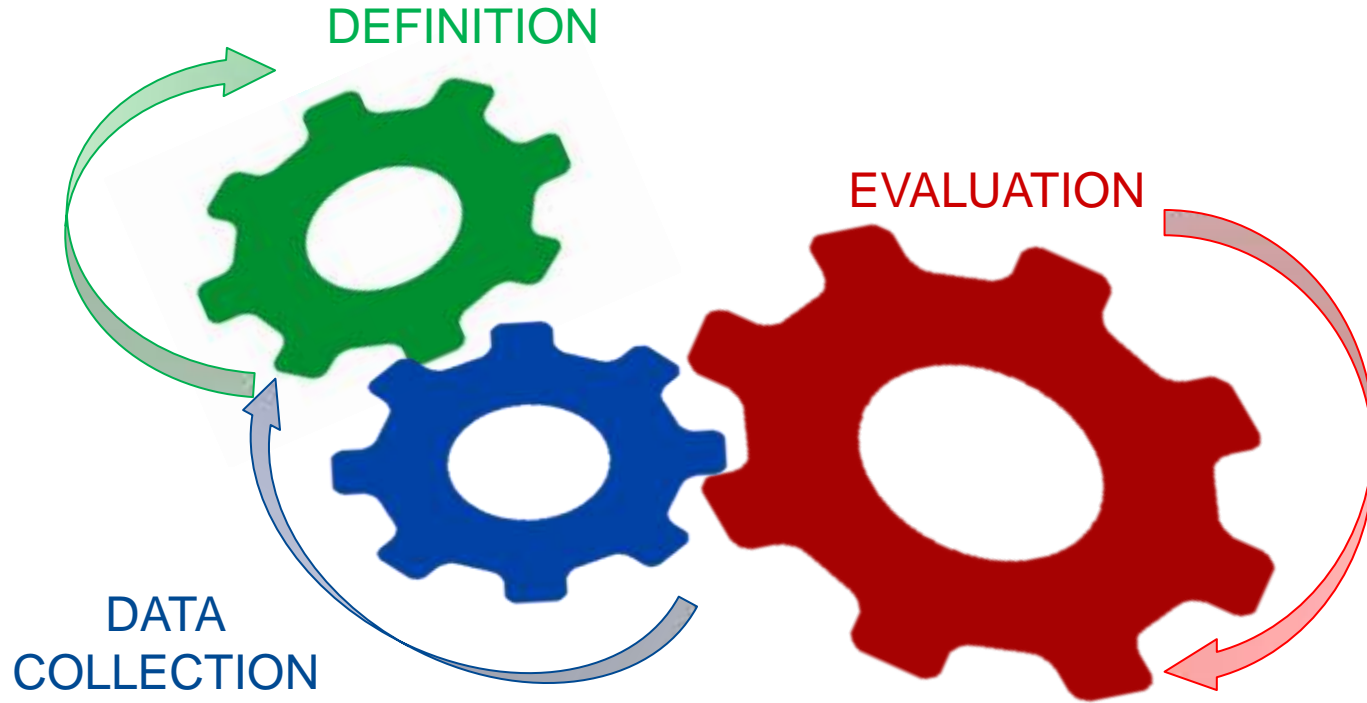
**publication of new guidelines for monitoring**

**revision of TM Evaluation Manual**

**VQR 2011-2015**



# Not only evaluation



# What is there inside TM?

## ▼ VALORIZATION OF RESEARCH ▼



## ▼ PRODUCTION OF PUBLIC GOODS ▼



# TM in VQR 2011-2014

(1/3)

- Publication of **ANVUR Evaluation Manual**:
  - classification in 8 areas
  - informed peer review (analysis of quantitative indicators through expert judgement)
  - for the 8 areas: criteria, indicators & questions - *the evaluation chain*
- Set up of the **central data collection system** (standardized and comparable data related to all HEIs)
- Use of **existing official data sources** (i.e. for patents and spin-off companies) to improve data quality and reduce burden & costs for institutions
- Creation of **90 TM indicators** (standardized and comparable for all the HEIs)
- Constitution of an evaluation **panel**
- **Systemic picture** (not case study): activities promoted by the HEIs (not at the individual researcher's level)
- TM not inserted in the **funding formula** (no money incentive)

# An example



<b>AREA</b>	<b>1. INTELLECTUAL PROPERTY MANAGEMENT</b>
<b>CRITERIA</b>	<p>a. inventive activity  b. portfolio management  <b>c. exploitation</b>  <i>ability to strategically choose the inventions to be valorized through assignments, licenses, options and spin-out constitutions</i></p>
<b>INDICATORS</b>	<p><b>exploitation</b></p> <p>1.c.i) number of assignments, licenses, options contracts/ total number of university patents</p> <p>1.c.ii) number of spin-out companies using university patents / total number of university patents</p> <p>1.c.iii) total revenues / total number of university patents</p>
<b>QUESTIONS</b>	<p>1.c.1) Has the university developed a policy on intellectual property management and exploitation?</p> <p>1.c.1) Is the intellectual property portfolio able to attract the interest of the economic world and obtain a flow of revenues?</p>

Source: ANVUR Evaluation Manual

# TM in VQR 2011-2014

(3/3)

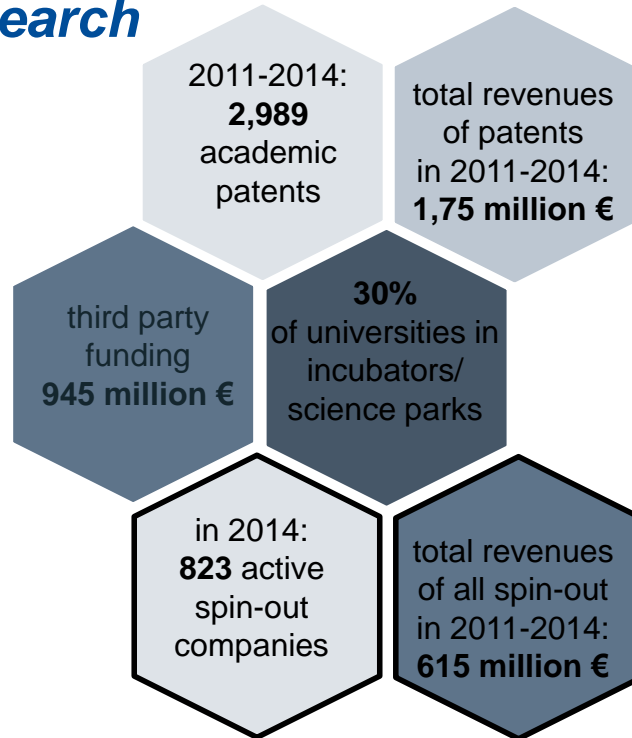
- Universities and research institutes are not asked to report activities in all the areas but based on institutional **strategy and features**
- There is **no unique aggregate ranking**, but separate evaluations by TM areas (*maturity model*: qualitative judgements, ratings, rankings)
- All the methodological tools have been object of **review**: international experts, public consultation, comments from academics and stakeholders, pilots and tests

# TM in Italian Universities at a glance 1/3

	Universities
Monitoring of the TM	85%
Presence of a manager of the TM	74%
Integration of the TM-related functions	53%

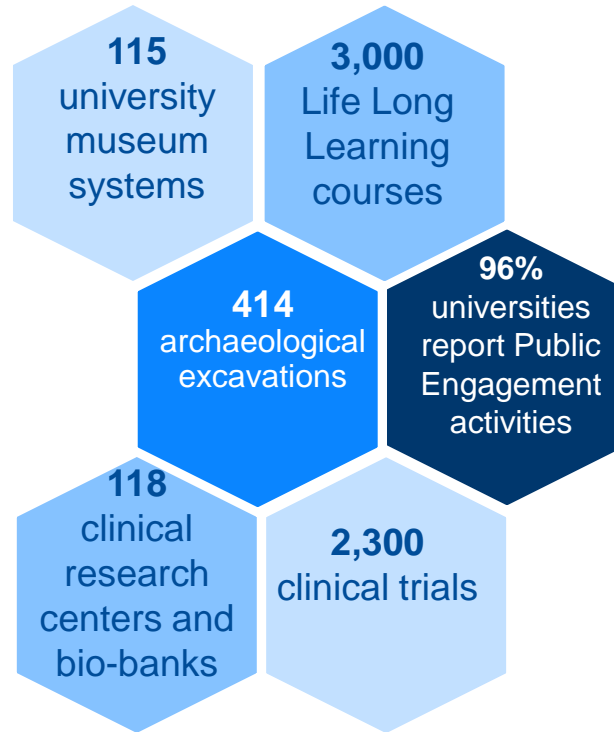
# TM in Italian Universities at a glance 2/3

## *Valorization of research*



# TM in Italian Universities at a glance 3/3

## *Production of public goods (2014)*





# Critical issues and future perspectives

- Need for data quality improvement
- New connection to official databases for further areas (better quality and less costs for universities)
- Clear definitions within the TM areas
- Improvement in the monitoring processes by universities

2011 ▶▶

▶▶ 2019

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**publication of new guidelines for monitoring**

**revision of TM Evaluation Manual**

**VQR 2011-2015**

# Work in progress

- publication of new guidelines for monitoring and revision of TM Evaluation Manual and set of indicators (socio-economic impacts and relevance of context/strategy)
- specific model for the evaluation of TM of Research Institutions
- preparation of VQR 2011-2015
- development of a new framework on TM Quality assurance in HEIs: *process of TM*

# Challenges ahead

- To reward researchers' third mission activities, without reducing their research and teaching incentives
- To focus on socio-economic impacts and relevance of context/strategy in the new Manual and set of indicators
- To integrate external sources of data (as already done with EPO database on patents and Chamber of Commerce database on spin-off companies)
- To restart the data collection process by the opening of the central data collection system (*deadlock*)

# External data sources

Are TM	Banche dati esistenti
brevetti	<a href="#">PATSTAT</a> (European Patent Office)
privative vegetali	<a href="#">Plant Variety Protection Data and Statistics</a> (UPOV International Union for the Protection of New Varieties of Plants)
Imprese spin-off	<a href="#">Infocamere</a> (Camere di Commercio)
attività conto terzi	<a href="#">Sistema informativo SIOPE</a> (MEF)
strutture di intermediazione	banche dati incubatori e parchi scientifici associati ( <a href="#">Pni Cube</a> e <a href="#">APSTI</a> )
musei	<a href="#">Sistema museale nazionale</a>
sperimentazioni cliniche	<a href="#">Osservatorio Nazionale sulla Sperimentazione Clinica dei Medicinali</a> (AIFA)
biobanche	<a href="#">Censimento biobanche</a> (BBMRI)
attività di educazione continua in medicina	<a href="#">Banca Dati Commissione Nazionale Formazione Continua</a> (AGENAS)
alternanza scuola-lavoro	<a href="#">Piattaforma dell'Alternanza</a> (MIUR)

# Thanks!



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