

# ALTERNATIVE Non-TESTING METHODS ASSESSED FOR REACH SUBSTANCES

LIFE 08 ENV/IT/000435

LIFE promoting the **USE** of **NON-TESTING METHODS**

QSAR MODELS and READ-ACROSS

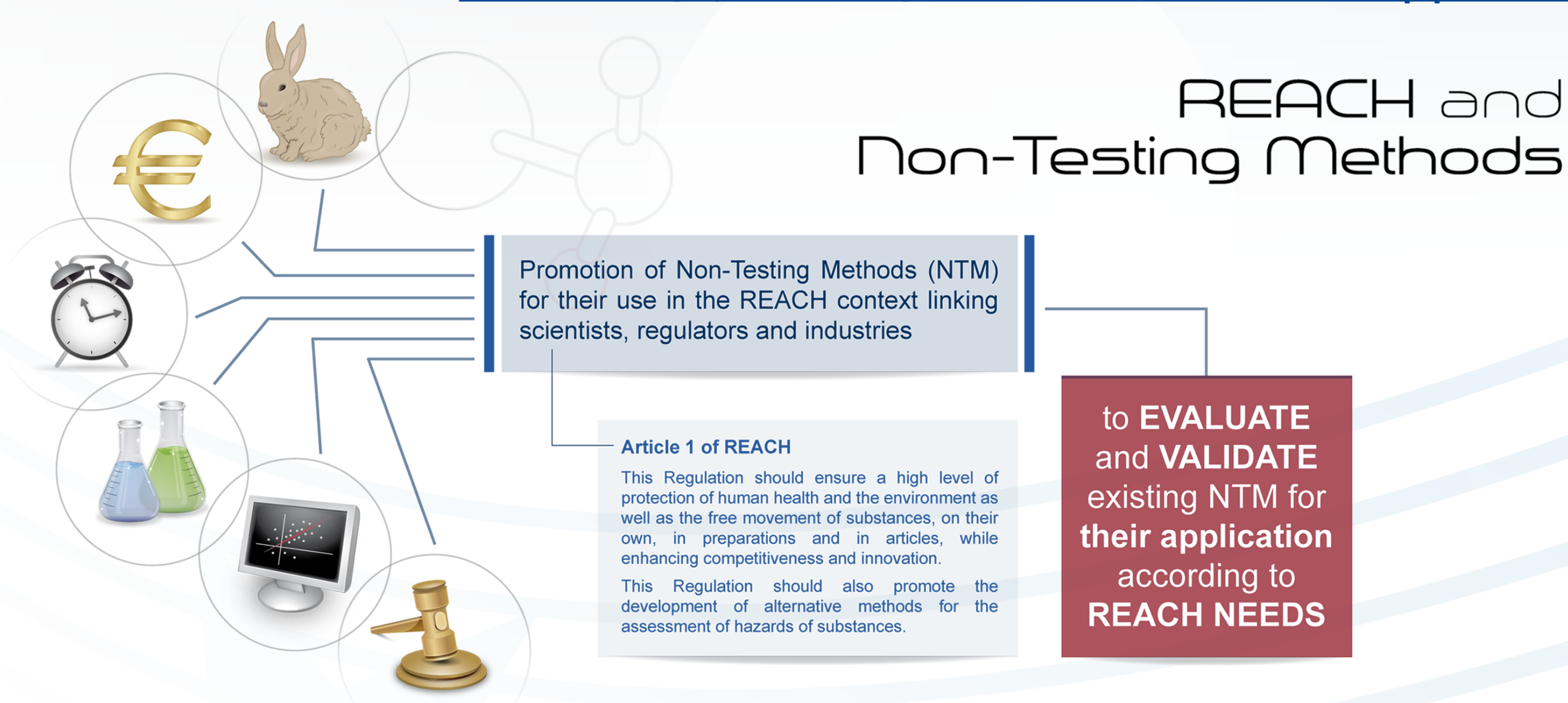
## AIM and OBJECTIVES

The **REACH** (*Registration, Evaluation, Authorisation and Restriction of Chemical substances* - Regulation EC 1907/2006) legislation promotes the use of **NON-TESTING METHODS (NTM)**.

NTM are all the approaches used to predict the effects of chemical compounds *WITHOUT THE USE OF THE REAL CHEMICAL COMPOUND*, but on the basis of the **CHEMICAL STRUCTURE ONLY** and comprise a series of different tools whose commonality lies in the identification of a relation between chemical structure and exhibited activity or toxicity, such as **Quantitative Structure-Activity Relationship (QSAR)** models and Read-across.

Before making an animal experiment, the industry should verify **IF ALTERNATIVE METHODS EXIST**. However, so far there is a **DEEP GAP OF KNOWLEDGE ON WHICH METHODS ARE AVAILABLE AND CAN BE USED IN PRACTICE**.

The LIFE project **ANTARES** aims to reduce this gap assessing NTM as an alternative approach for REACH.



## MAIN PROJECT ACTIVITIES

Survey of current methods for the compliance to the REACH legislation.

Identification of the **criteria for the Non-Testing Methods** for the REACH legislation.

Identification of **suitable experimental databases/data sets** for the ecotoxicological, toxicological and environmental endpoints for REACH.

List of **(Q)SAR models** for the ecotoxicological, toxicological and environmental endpoints for REACH, and their review.

**Validation** of Non-Testing Methods (including read-across).

Identification of **boundaries for best use of models** (applicability domain) and of the **assessment factors**.

**Architecture** for integration of different Non-Testing Methods for best performances and coverage of applicability.

Communication and dissemination initiatives.

## CONSORTIUM and BENEFICIARIES

- 1 **COORDINATOR**  
ISTITUTO DI RICERCHE FARMACOLOGICHE MARIO NEGRI
- 2 ISTITUTO SUPERIORE DI SANITÀ
- 3 FEDERAZIONE NAZIONALE DELL'INDUSTRIA CHIMICA
- 4 POLITECNICO DI MILANO  
DIPARTIMENTO DI ELETTRONICA E INFORMAZIONE
- 5 KNOWLEDGEMINER SOFTWARE FRANK LEMKE



**POLITECNICO  
DI MILANO**



## The LIFE Programme

[www.antares-life.eu](http://www.antares-life.eu)

LIFE is the EU's financial instrument supporting environmental and nature conservation projects throughout the EU. Since 1992, LIFE has co-financed 3115 projects, contributing approximately €2 billion to the protection of the environment.

LIFE+ ENVIRONMENT POLICY AND GOVERNANCE supports technological projects that offer significant environmental benefits, for example process or efficiency improvements. This part of LIFE+ also helps projects that improve the implementation of EU environmental legislation, that build the environmental policy knowledge base, and that develop environmental information sources through monitoring (including forest monitoring).