

## PROJECT OBJECTIVES

The RAPID DRY project aims to **optimise** the **DRYING PROCESS OF CERAMIC CAST PIECES** thanks to

A NEW, FULLY AUTOMATED,  
CHAMBER DRYER



REDUCES ENERGY  
CONSUMPTION AND  
EMISSIONS



NEW CERAMIC BODY  
FORMULATIONS



REDUCE THE AMOUNT  
OF VIRGIN RAW MATERIALS USED  
FOR EACH PIECE AND THE AMOUNT  
OF WASTE SENT FOR DISPOSAL



The project technology:

- **ENSURES A HOMOGENEOUS DRYING PROCESS** thanks to the innovative PLC (Programmable Logic Controller) software
- **REDUCES THE DURATION** of the drying cycle
- **PROVIDES A HIGHER RESISTANCE TO BREAKAGE** of the ceramic pieces during the drying cycle

## LIFE RAPID DRY project



31 MONTHS  
DURATION



2020/06/01  
START



2022/12/31  
END

LIFE19 CCM/IT/001243  
LIFE PROJECT

## PARTNERS



[www.setecsrl.it](http://www.setecsrl.it)



[www.lcengineering.eu](http://www.lcengineering.eu)

# RAPID DRY



WITH THE CONTRIBUTION OF THE LIFE  
FINANCIAL INSTRUMENT  
OF THE EUROPEAN UNION  
LIFE19 CCM/IT/001243

## RAPID DRYING OF CERAMICS

## REDUCING ENERGY CONSUMPTION AND CO<sub>2</sub> EMISSIONS WHILE PRESERVING PRODUCT QUALITY

[www.rapid-dry.eu](http://www.rapid-dry.eu)

# FINAL RESULTS

## INDUSTRIAL OUTCOMES

DRYING CYCLE  
WITH TRADITIONAL DRYER



14h

WITH TRADITIONAL CERAMIC SLIPS

DRYING CYCLE  
WITH NEW RAPID DRY DRYER



8h

WITH TRADITIONAL CERAMIC SLIPS



7h

WITH RAPID DRY SLIPS



0

DAMAGED OR BROKEN PIECES



-6%

RAW MATERIALS CONSUMPTION



-67%

GAS CONSUMPTION



-86%

ELECTRICITY CONSUMPTION

## ENVIRONMENTAL OUTCOMES

Compared to a traditional dryer, the new RAPID DRY DRYER and slips have significantly reduce GREENHOUSE GAS EMISSIONS:



-68%

in the life cycle of A RAPID DRY DRYER (30 years)



-7%

per 1 kg of RAPID DRY VITREOUS CHINA



-4%

per 1 kg of RAPID DRY FIRE CLAY

## SOCIAL OUTCOMES

REDUCTION IN NOISE  
AND DUST LEVELS



IMPROVING WORKERS' CONDITIONS  
NEAR THE DRYER

## ECONOMIC OUTCOMES



-25%

costs over the life cycle  
of a dryer using  
RAPID DRY  
VITREOUS CHINA BODIES



-31%

costs over the life cycle  
of a dryer using  
RAPID DRY  
FIRE CLAY BODIES



-than 1 year

the time needed to repay  
the higher investment due  
to the purchase of the  
NEW RAPID DRY DRYER

