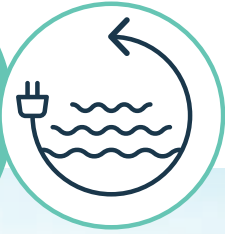


# CASE STUDY



## Wastewater and Waste-to-Energy Treatment Plant for Chicken Slaughterhouse

- **Project:** Amadori
- **Location:** Teramo, Italy

- **Solution type:** Wastewater and Waste-to-Energy

### Background

Founded in the 1930s, Amadori S.p.A grew from a small poultry firm to one of the leading companies in the Italian agro-food sector for meat-based dishes and other Italian foods.

### Challenges

Amadori already had a Wastewater Treatment Plant (WWTP), but needed to increase production while reducing disposal costs. The challenge was to build and activate the plant during the normal operation of the existing plant and slaughterhouse.

### Solution

To address these needs effectively, a restructuring of the existing WWTP with the insertion of an anaerobic digestion and Nitro-Denitro system was designed, built, and commissioned by Fluence.

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## System Description

- Effluents: poultry slaughterhouse wastewater and breeding waste
- Capacity: 3,180 m<sup>3</sup>/d
- Pretreatment by DAF system
- Anaerobic digestion with biogas production which can be converted into electric and thermal energy by a cogenerator
- Dehydration of primary sludge through belt filter press
- Nitro-denitro system
- Final clarification

## Slaughterhouse WWTP Project Data

Slaughter Production	200,000	chickens/d		
Flow Rate	4,180	m <sup>3</sup> /d		
	INLET		OUTLET	
COD	5,300	mg/L	<80	mg/L
Total Nitrogen	200	mg/L	<10	mg/L
Total Phosphorus	20	mg/L	<2	mg/L
Methane Production	3,600	Nm <sup>3</sup> /d		

## Process Flow

