



## CH2M HILL ESPAÑA S.L.

**Telecommunication  
Project Management, and  
Design and Construction  
Management Services**

**Client**  
ONO

**Location**  
Spain

## Project Design, Construction, and Program Management

CH2M HILL collaborated with ONO to launch one of the world's largest telecommunication network projects involving the design and installation of more than 470,000 km of fibre into 3.5 million homes throughout Spain. This program started in 1998 and represented rapid mobilization and implementation in record time to relieve possible competition from the existing monopoly. CH2M HILL provided permitting and licensing assistance that included preparing bid documents for license acquisition to build cable telecommunication networks. This tender resulted in ONO being awarded 10 operating licenses.

CH2M HILL conducted due diligence audits prior to the purchase of other fixed network operators, such as Retecal and AUNA, performing technical evaluations as well as developing budgets.

Since the licenses were awarded in 1998, ONO has maintained its agreement with CH2M HILL to direct the entire network launching program. Moreover, CH2M HILL also provides external plant design and engineering, construction management and site supervision, GIS database development, field data collection, and supervision of activation. Utilizing a centralized management structure, CH2M HILL successfully coordinated simultaneous construction projects throughout Spain. The network designs were managed and produced in a central office which allowed for continuous quality improvement of technical standards and processes. The methods and tools used by CH2M HILL allowed ONO to rapidly construct a physical network while maintaining quality, reliability, and profitability.

From offices in Madrid, CH2M HILL provided program management services, including budgeting, planning, staffing, and developing policies and procedures for all roll-out activities. CH2M HILL and ONO collaborate to obtain new licenses, create strategic plans, acquire construction permits, and integrate new technologies and equipment.