## **Utilities**

The statistical evidence for the installation standard and associated interventions is comprehensive.

At the end of the 1900s, the total number of dwellings (single-family houses, townhouses, chain and semi-detached houses, and flats) was 2,453,000, of which 974,000 were in multible-storey buildings.

Of the 974,000 storeys, 858,000 had toilet, central heating and bath (88%), 70,000 had toilet and central heating (7%), 10,000 only toilet (1%) and the last 35,000 were still without any of these installations or listed as "unenlightened".

Of these dwellings, 103,000 were built before 1900, and this figure also includes dwellings in buildings built before 1850. (The figure does not reflect the number of multible-storey houses in 1900 - only in Copenhagen that year up to 100,000, because quite many buildings have been demolished, and partly apartments have been merged or changed for other purposes.

One can almost assume that only a (very small) minority of multible-storey houses erected before the year 1900 were originally provided with any of the installations mentioned

The statistical material regarding sanitary installation conditions does not include kitchens. In this context, it should be mentioned that the installation of tap water in kitchens had been standard in housing construction in most major cities since the 1850s.

Drainage from kitchen sinks, however, was common even before, but it was carried externally and often connected to roof drains. Therefore, the improved installation conditions must include the installation of interior kitchen sink drains from the beginning in the 1890s.

From the beginning of the 20th century, the toilet (WC usually without sink) was almost standard in new buildings in the cities.

132,000 dwelling units were built in the period 1900-1919.

189,000 dwelling, in multible-storey buildings were from 1920-1939.

Central heating began to occur in the 1920s, and was widespread in the late 1930s, but as late as the late 1950s housing was still being built with iron stove heating in the smaller urban communities.

Bathrooms began to appear more common around 1930 and were standard in the late 1930s - in the minimal version only with drains in the terrazzo flooring in the toilet room and with the option of shower set up, provided with hot water from gas water heater.

Finally, it should also be mentioned that installation of boil-gas and electricity has been ongoing in the existing housing stock since the end of the 19th century.

In general, new housing construction after 1940 has, from the outset, had the standard of installation that we consider as minimum today.

Thus, of the total number of dwellings, it is in the part that was built before 1940 that one or more of the mentioned installations must be added after the original construction. This amount to a total of 424,000 in multible-storey buildings.

Between 1940 and 1969, 323,000 dwellings in multible-storeys buildings were constructed, 186,000 until 1960 and the rest, 137,000, - in the following decade. After that, the market of this type of housing stagnated, and the construction of dwellings became predominantly single-family homes, but the new "close-low" housing construction also played its part. In the last 3 decades of the century, only 227,000 dwellings in multible-storey buildings were constructed.

There is no immediately available statistical material on the number of merged dwellings or the increase of existing apartment size by including area in roof storeys. The same applies the numbers of (radical) changes of the interior design of apartments, in addition to what is indirectly caused by the building changes associated with the increasing of the installation standard with toilets and bathrooms.