The main goal of this research is to define and to instrumentalize mixed-use from a planning point of view. Due to economic transformations and a reflexive modernization elementary characteristics of the classical European city like high density, small grain, incremental growth and especially mixed-use have become part of a process of re-appreciation in the 21st century. This implicates that the modus operandi in urban planning and development which to a large extent has become an economical product of corporations rather than the result of societal interaction between government, enterprises and individuals is likely to be redefined in the near future. The common denominators of spatial development by corporations in the 20th century exemplified by scale enlargement, rationalization en functional specialization are becoming less and less apt as key principals for an attractive, productive and sustainable urban environment. This is strongly related to the transformation of an industrial economy to a service economy and the radical progress in information technology. The way large corporations are acting in urban development is not any longer in compliance with the demands and needs of the citizens and the “creative” professionals of the information age.

The French urban theorist Francois Ascher argues that the transition of an “industrial capitalism” to a “cognitive capitalism” will result in new urban environments, reminiscent of the classical European urbancy, that have a functionally mixed character. In his apodictive argumentation he states that the segmentation of time and space as a product of the industrial revolution, resulting in large-scale mono-functional spatial entities, will be subject to change: as planners have been advocating mixed use from the mid 60’s now there is also a solid economic fundament. New economic forces result in new mixed-use areas. In the Netherlands, where governments still have a relatively strong role in the programmatical definition of urban projects, this new mixing is becoming visible in urban transformations where low density single-use is replaced by high density mixed-use. Examples of those transformations are the emergence of creative districts and metropolitan downtowns like “Amsterdam Zuidas” or “Rotterdam Kop van Zuid”.

Research indicates that a good definition of “mixedness” in relation to program, scale and disposition of functions is virtually absent and that the way governments are advocating mixed use is rather a practical matter than a product of scientific research and theoretical debate. In this paper the concept of mixed-use is explored via a historical overview, an actor analysis and a summary of definitions, resulting in the construction of an index that describes mixed-use. The starting point for the definition of this index is not the complexity of actors and factors and the way their interaction results in a mixed use project but the way the disposition of different programs is measurable in our physically built environments. In order to make the rich spectrum of urban uses measurable and the mix of uses is primarily reduced to
housing versus non housing. The proposed mixed-use index (mxi) is defined as the proportion of housing floorspace as percentage of the total amount of floorspace in a specified area. The value of this index is a figure between 0-100 where 0 and 100 mean single use for either non housing or housing and where a figure of 50 means that the functional mix for housing and non housing uses is balanced by 50/50. This index (mxi) is comparable to well known indexes like fsi or osr that are widely used for urban analysis and developmental ends.

Using the mxi Amsterdam districts are analyzed on aspects of mixed-use and disposition and division of functions. First results, obtained via gis analysis, suggest that there is a strong relationship between centrality of the district, the character of the district and the mix-index as is expressed by the mxi. Furthermore this analysis leads to the assumption that the character of a district can be related to bandwidth within the mxi range. For instance garden cities have an mxi have a value between 90-100 whereas industrial territory has an mxi value of 0-10. Downtowns and city centers have an mxi between 40-60. When combined with other indexes like the fsi a very powerful determination of urban character can be reached by two single figures of fsi and mxi.

The goal to be achieved by application of the mxi is primarily to rethink urban projects and plans from a “mix” perspective. Through the mxi a better grip on mixed-use planning can be achieved from perspectives of analysis, policy, design and real estate development. Urban planners will benefit from a better grip on the “mix” when they know what are the effects of a mix on a district level. Urban analysis can benefit from the mxi when it is related to economic or social phenomena. For corporations the mxi can become relevant when defining outline and character of large-scale “area developments” or as it is called in Dutch, “gebiedsontwikkeling”.

Functional segregation and scale enlargement in urban history: Amsterdam Amstel 3: 30,000 jobs

Amsterdam IJburg: 30,000 beds