A fundamental aspect of the provision of cycling facilities is the reallocation of carriageway from motor vehicles to cycling. TThe provision of cycle tracks in urban areas at the expense of the footway is not encouraged (it tends to be unpopular with pedestrians and cyclists), particularly where there are high pedestrian flows, although there are some limited situations where this may be necessary. Reallocation of road space makes an important statement about the relative priority of different transport users, as it not only promotes cycling but can act as a restraint on motor traffic, which is an important aspect of transport and planning policy in congested urban areas.

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BIM-TECHNOLOGIES IN THE DESIGN OF BUILDINGS AND STRUCTURES

The development and design of new buildings and structures necessitates the implementation of large-scale design works. The requirements for the quality of the projects and the terms of their implementation remain increasingly strict as the complexity of the objects being designed increases. It is impossible to meet these requirements by increasing the number of designers, since the possibility of parallel design work is limited and the number of engineering and technical workers in Ukraine design organizations cannot be increased indefinitely. The problem can be solved on the basis of automation of design, widespread use of computer technology and introduction of BIM-technologies.

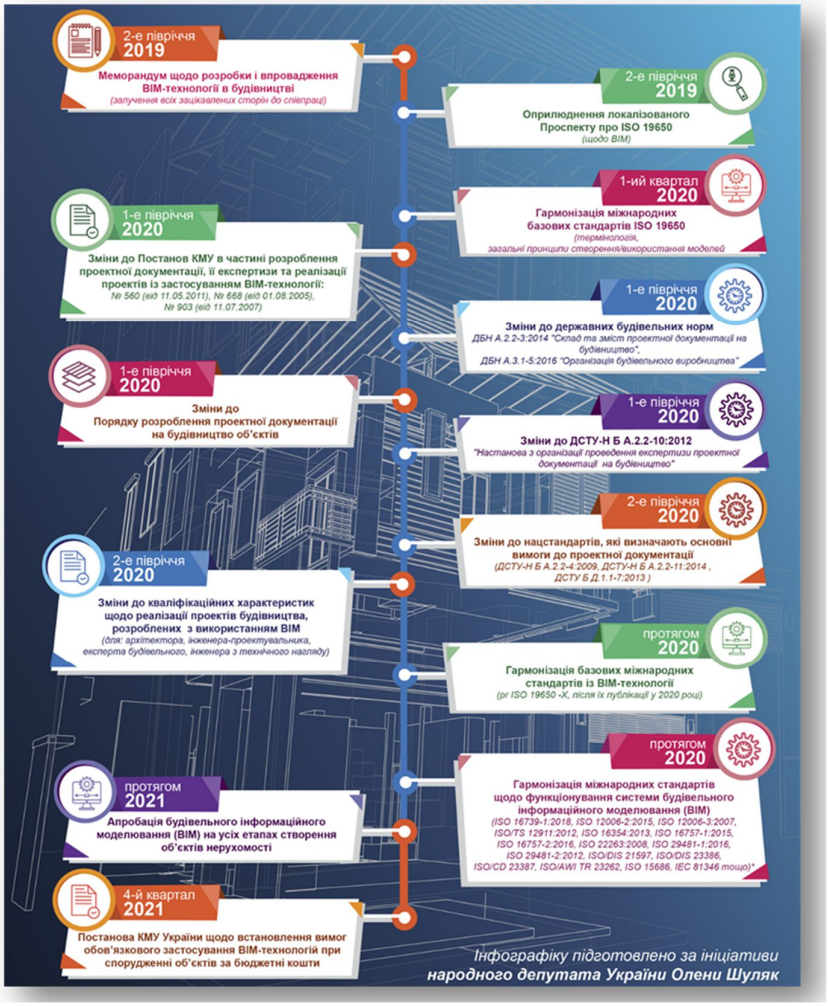

Figure 1 - Draft of roadmap for implementation of BIM in Ukraine

Computer-aided design (CAD) is the use of computer systems to assist in the creation, modification, analysis, or optimization of a design. CAD software is used to increase the productivity of the designer, improve the quality of design, improve communications through documentation, and to create a database for manufacturing. CAD output is often in the form of electronic files for print, machining, or other manufacturing operations.

Computer-aided design is used in many fields. Its use in designing electronic systems is known as electronic design automation, or EDA. In mechanical design it is known as mechanical design automation (MDA) or computer-aided drafting (CAD), which includes the process of creating a technical drawing with the use of computer software.

CAD software for mechanical design uses either vector-based graphics to depict the objects of traditional drafting, or may also produce raster graphics showing the overall appearance of designed objects. However, it involves more than just shapes. As in the manual drafting of technical and engineering drawings, the output of CAD must convey information, such as materials,

processes, dimensions, and tolerances, according to application-specific conventions.

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ДОСВІД ПРОЕКТУВАННЯ ЗАКЛАДІВ ВИЩОЇ ОСВІТИ ДЛЯ МАЛОМОБІЛЬНИХ ГРУП НАСЕЛЕННЯ

Доступна освіта – це ключова складова розвинутого суспільства. Сучасні вищі навчальні заклади – це установи професійної освіти, потужні наукомісткі і соціально-культурні центри, які формують кадровий склад багатьох громадських сфер та установ. У зв'язку з цим до рівня системної організації всіх компонентів його архітектурно-просторового середовища пред'являються сьогодні особливо високі вимоги. Створення адаптованого архітектурного середовища закладів вищої освіти, його відповідність соціальним і функціональним вимогам перспективних форм навчально-наукового прогресу – одне з найважливіших завдань у розвитку та модернізації вищої освіти.

Освіта покликана забезпечити рівний доступ до освітніх ресурсів і створити необхідні умови для отримання освіти всіма без винятку