



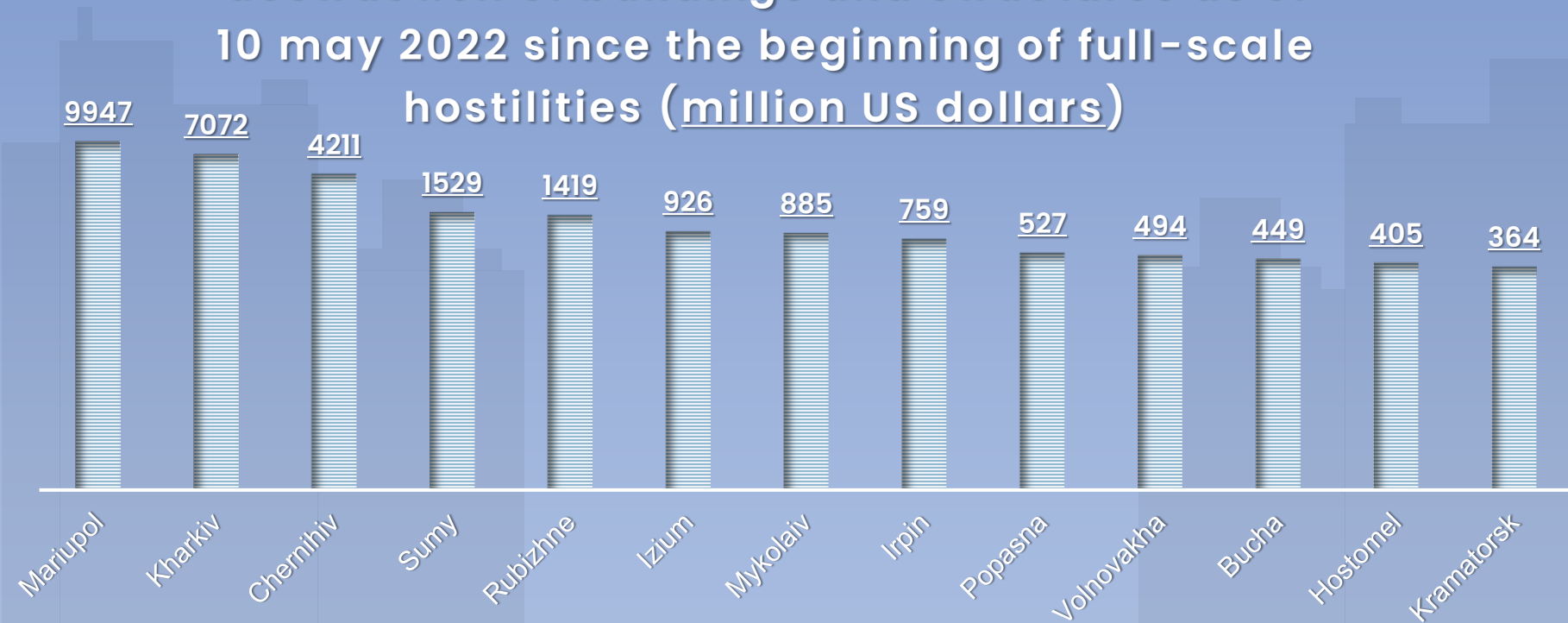
DESIGNING THE ORGANIZATION AND TECHNOLOGY OF DEMOLITION BUILDINGS AND STRUCTURES WITH THE INTRODUCTION OF IT

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Relevance of research

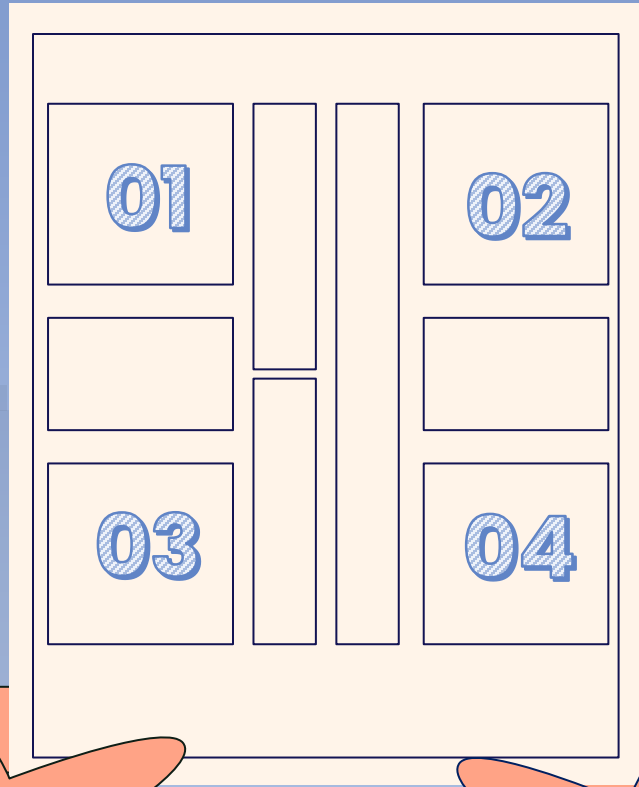
Losses of settlements from damage and destruction of buildings and structures as of 10 May 2022 since the beginning of full-scale hostilities (million US dollars)



To achieve the goal completed:

Formation of a collection of representative objects

The most important (key) factors of the object and site had determined



An electronic database of work execution projects has been created

A layout of a computer program for the selection of ready-made solutions has been developed

A set of representative objects was formed from among the implemented projects of dismantling (demolition) of buildings and structures

№	Feature	Parameter				
		1	2	3	4	5
1	Altitude of the object, number of floors	1-2	3-5	6-9	10-14	more 15
2	Object height in m	to 10	10-15	15-30	30-60	more 60
3	Building type	Residential	Administrative building	Civil	Industrial	Agricultural
4	Structural type of building	frameless	with frame	with incomplete frame		
5	Class of consequences (responsibility) of the building	minor consequences - CC1	medium consequences - CC2	significant consequences - CC3		
6	Basic compositional-spatial schemes	Centralized building type	Blocked building type	Pavilion building type		
7	The degree of fire resistance of buildings, structures	I	II	III	IV	V
8	Year of construction rear	before 1920	1920-1950	1950-1980	1980-2000	2000-2020
9	Capitalization of the building	I	II	III	IV	V-VI
10	Building shape	Rectangular	Square	Rounded	Complex	
...
71	Application of specialized standards in the factory	Metallurgical industry	Gas-, coke-production	Sheet-rolling production	Enrichment production	None
72	Protection of existing networks	Yes	No			



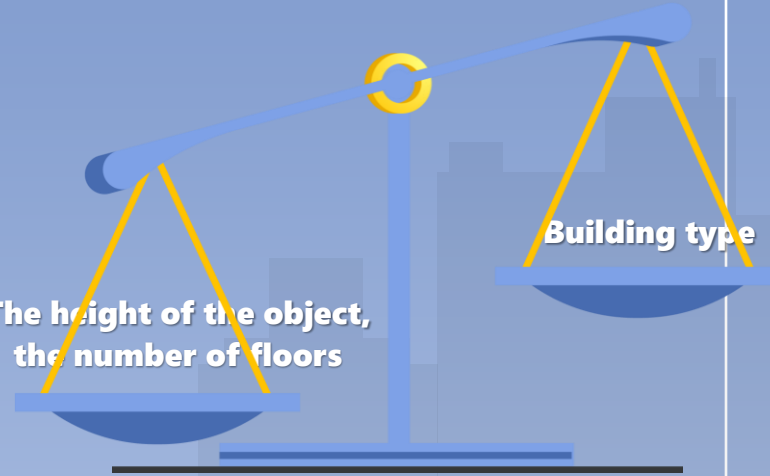
An electronic database of work execution projects has been created for the entire set of representative objects



Features of the object

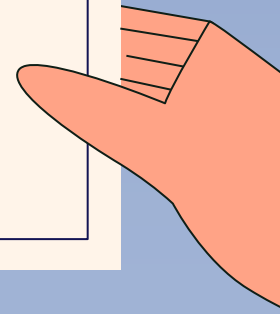
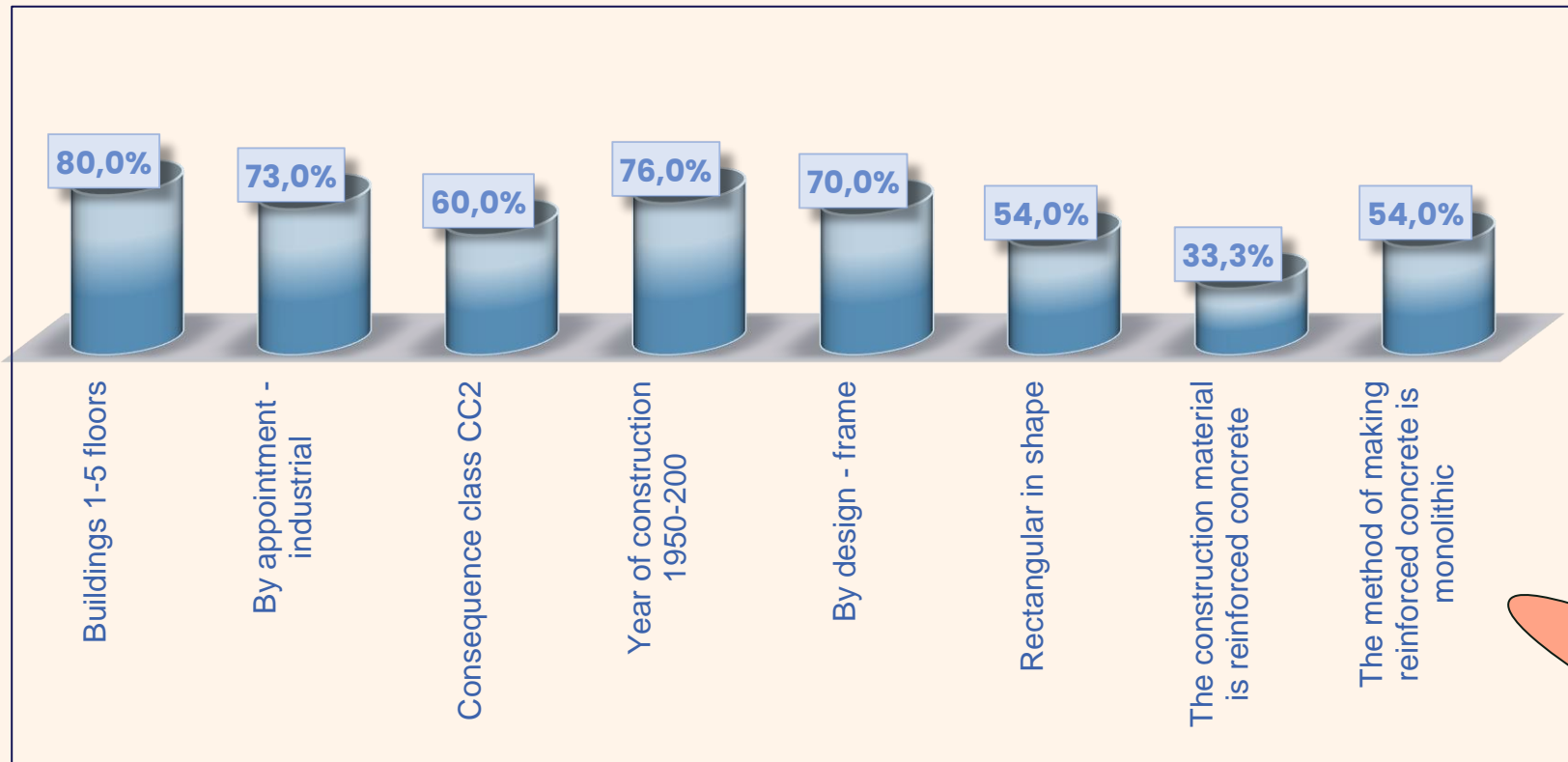
	The height of the object, the number of floors	The height of the object in	Building type	Structural type of the building	Class of consequences (responsibility) of the building
The height of the object, the number of floors		0	2	0	-2
The height of the object in	0		1	0	-2
Building type	-2	-1		-1	-2
Structural type of the building	0	0	1		-2
Class of consequences (responsibility) of the building	2	2	2	2	

The most important (key) factors of the object and site had determined

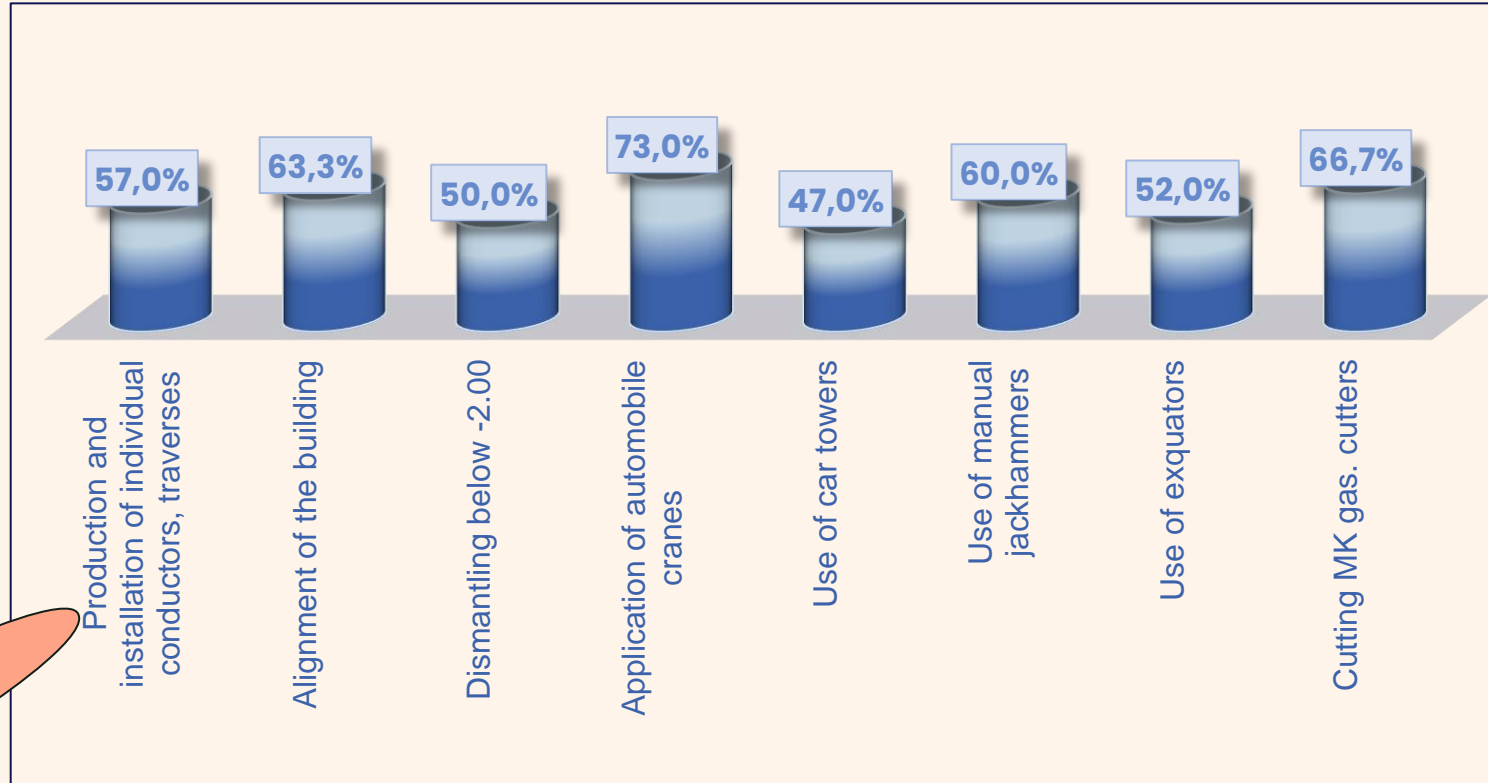


The first parameter (characteristic): "Object height, number of floors" correlates equally with the "Object height in meters" parameter, but the "Building type" parameter is fundamentally unimportant compared to the first parameter.

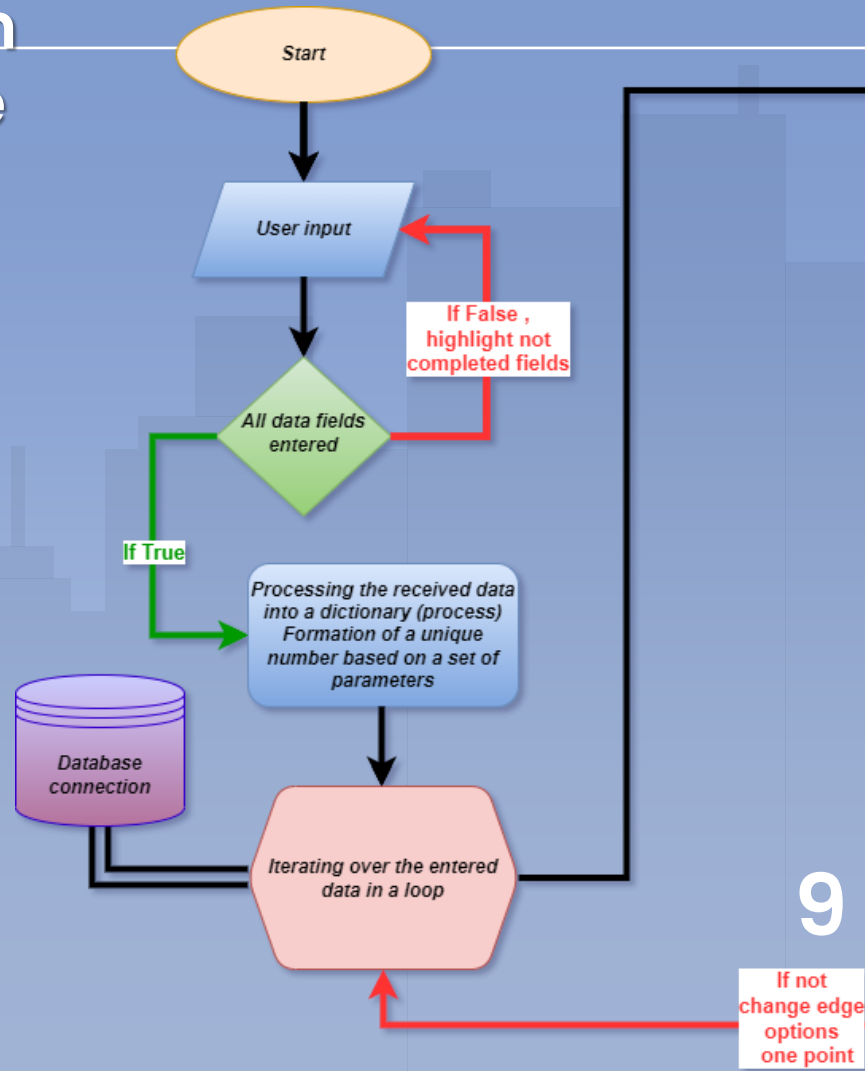
The graph of the sample population distribution of objects of representatives with the most distinct investigated features of the building (structure) and the site:

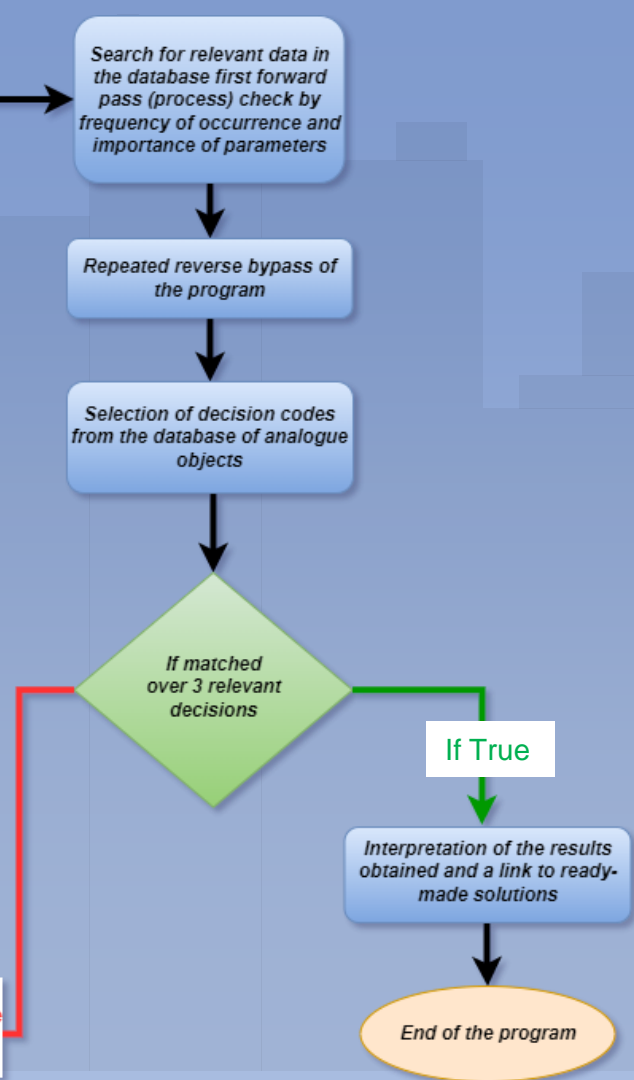


The schedule of the sample distribution of the decisions that were made during the dismantling works of the representative objects:



A layout of a computer program for the selection of ready-made solutions has been developed





Thank you for Your attention

Please free to ask questions

