

DIGITALIZACE VE STAVEBNICTVÍ



Ing. arch. Petr VOKOUN
BIM Project

DIGITALIZACE

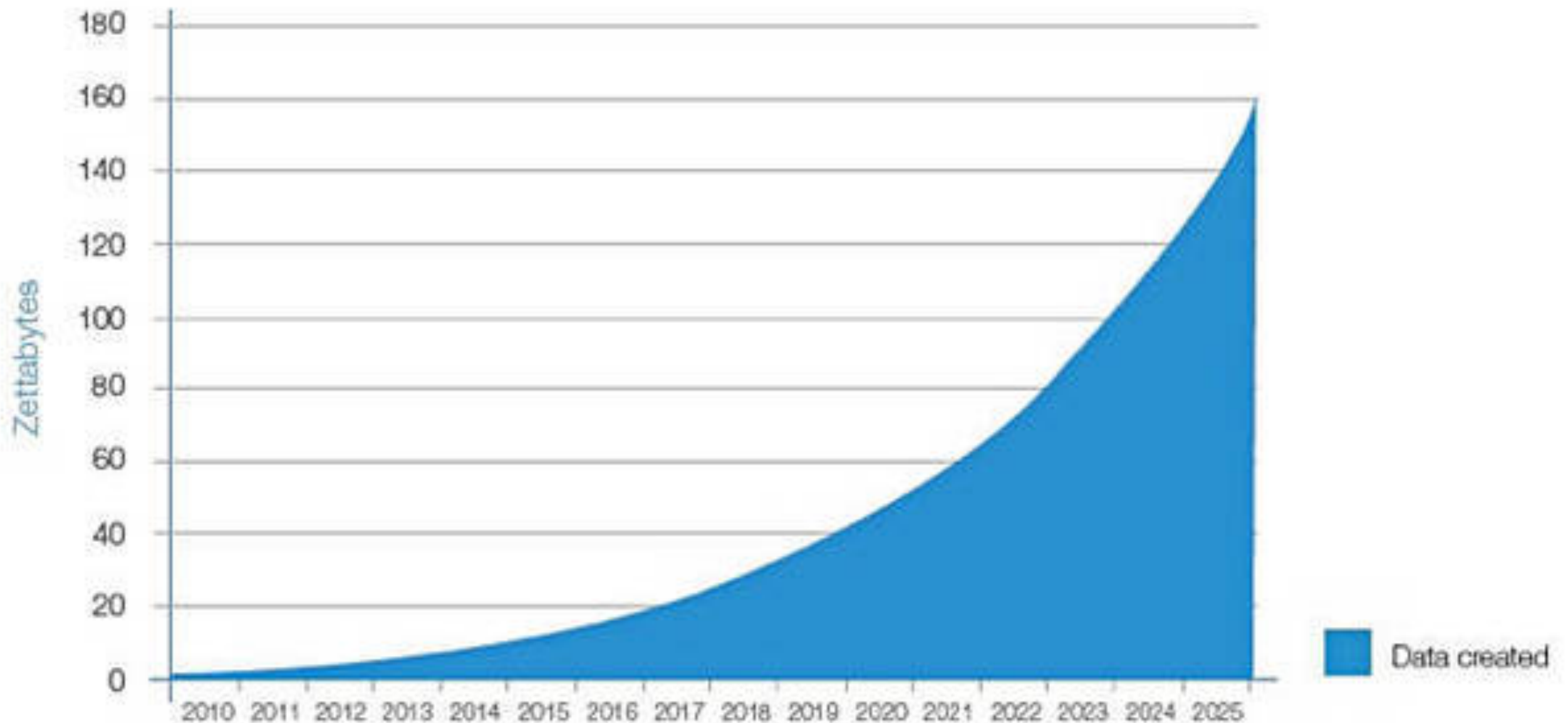


DIGITÁLNÍ VESMÍR



DIGITÁLNÍ VESMÍR

Figure 2. Annual Size of the Global Datasphere

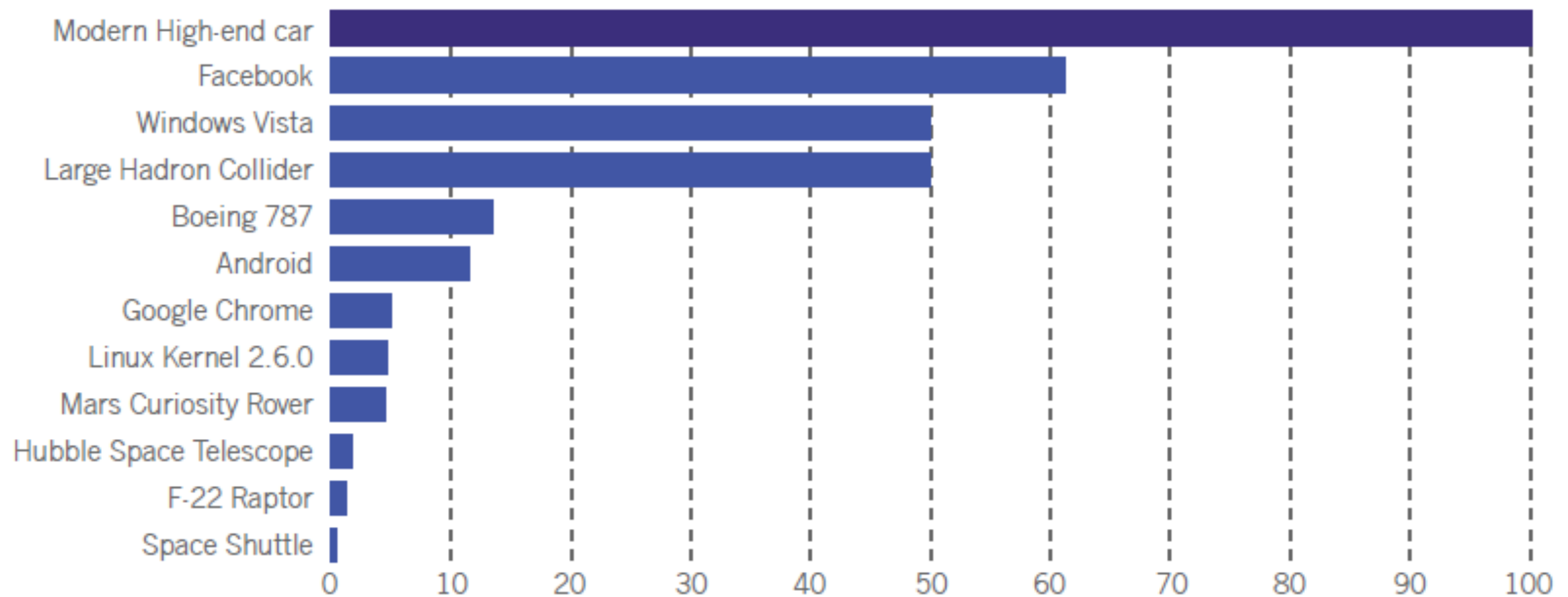


Source: IDC's Data Age 2025 study, sponsored by Seagate, March 2017

DIGITÁLNÍ VESMÍR

SOFTWARE SIZE (MILLION LINES OF CODE)

Source: NASA, IEEE, Wired, Boeing, Microsoft, Linux Foundation, Ohloh



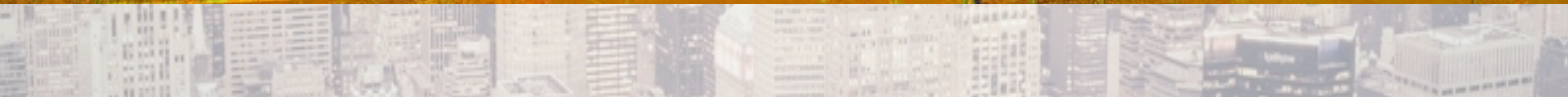
SBĚR INFORMACÍ O STAVBĚ



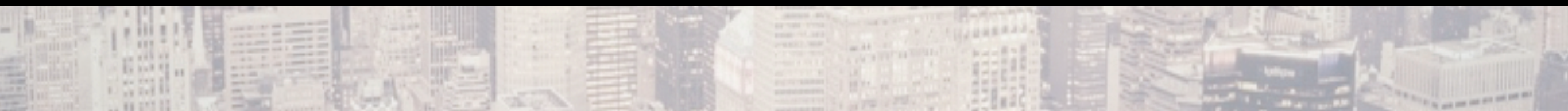
LASER SCAN



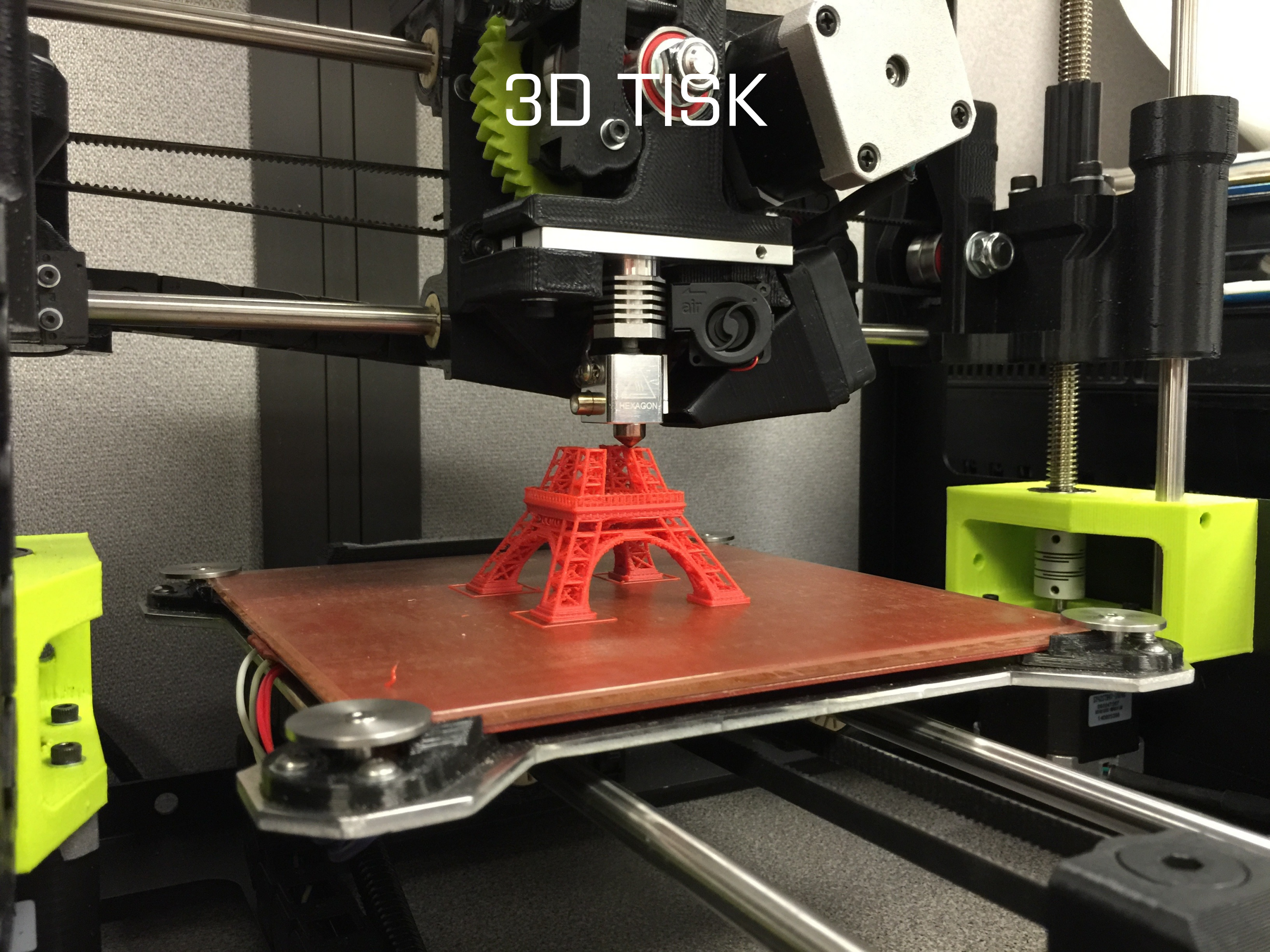
LASER SCAN



LASER SCAN



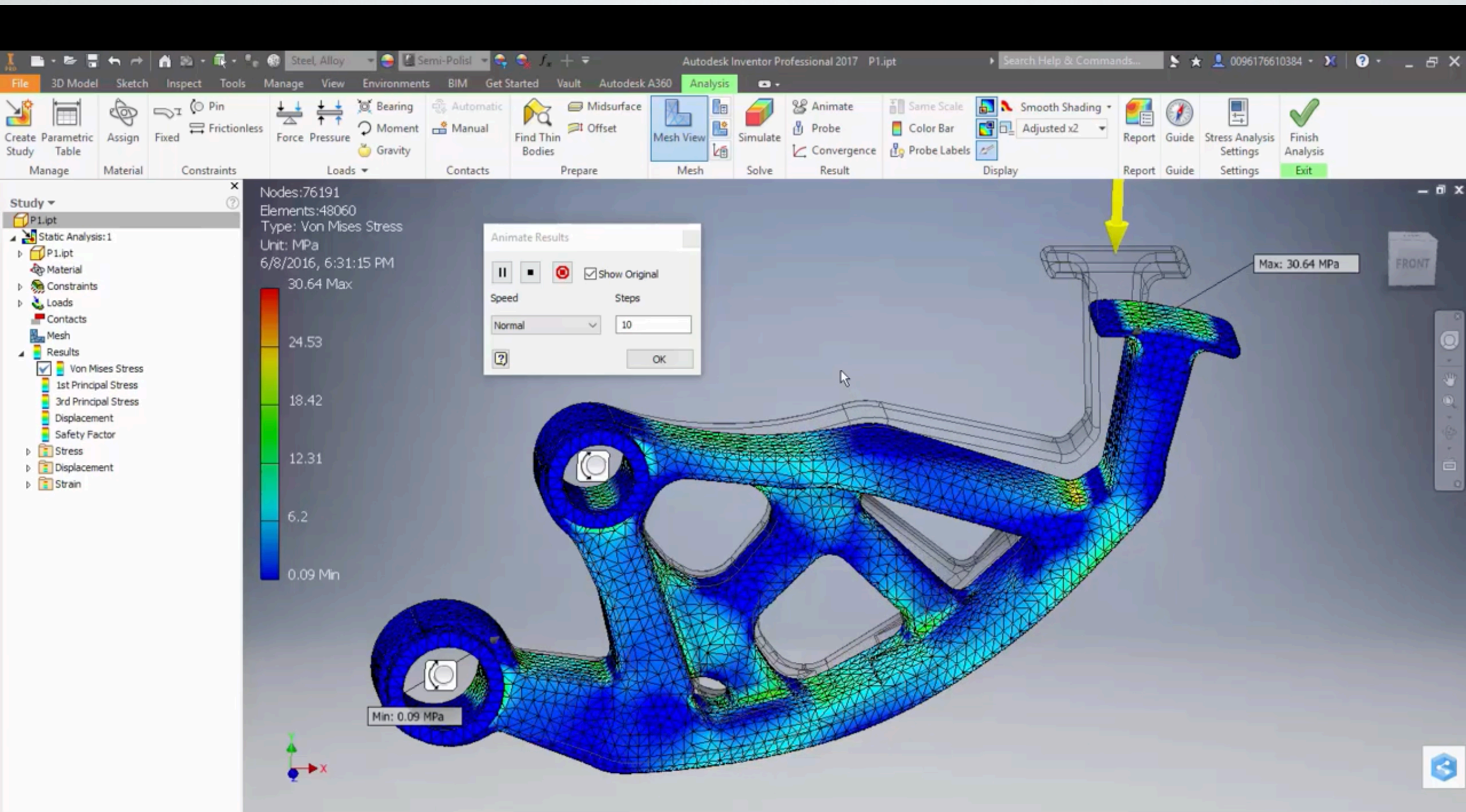
3D TASK



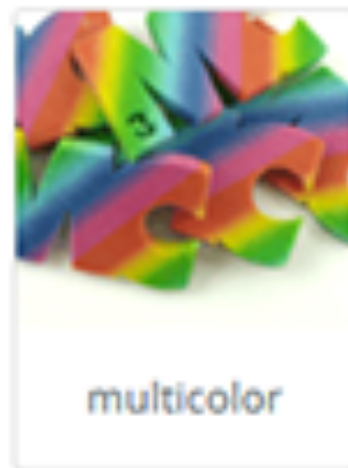
3D TASK



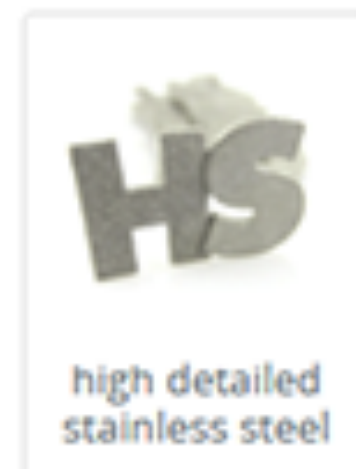
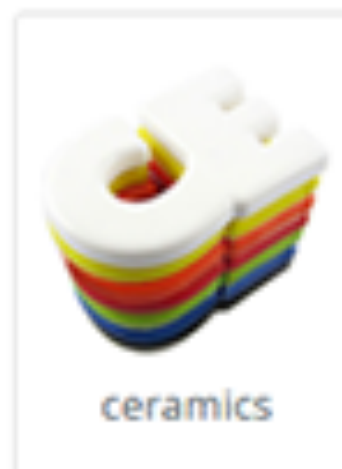
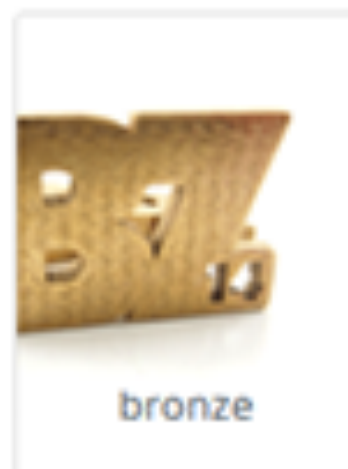
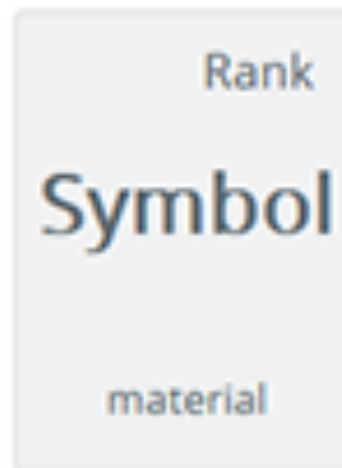
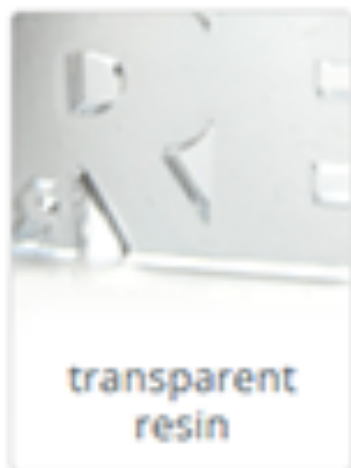
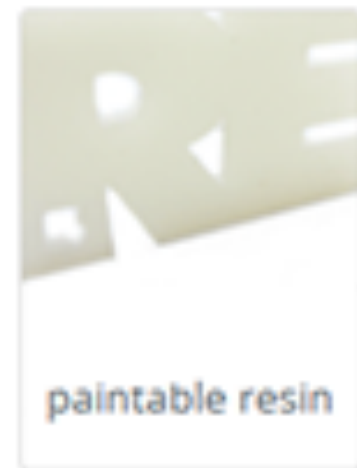
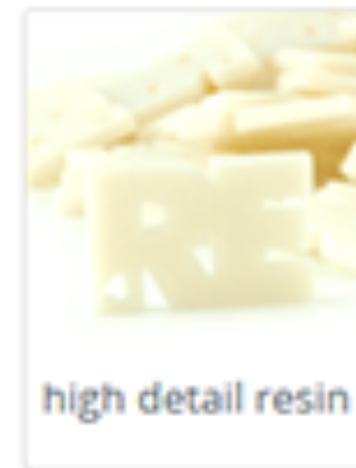
OPTIMIZE GEOMETRIE



MATERIÁL

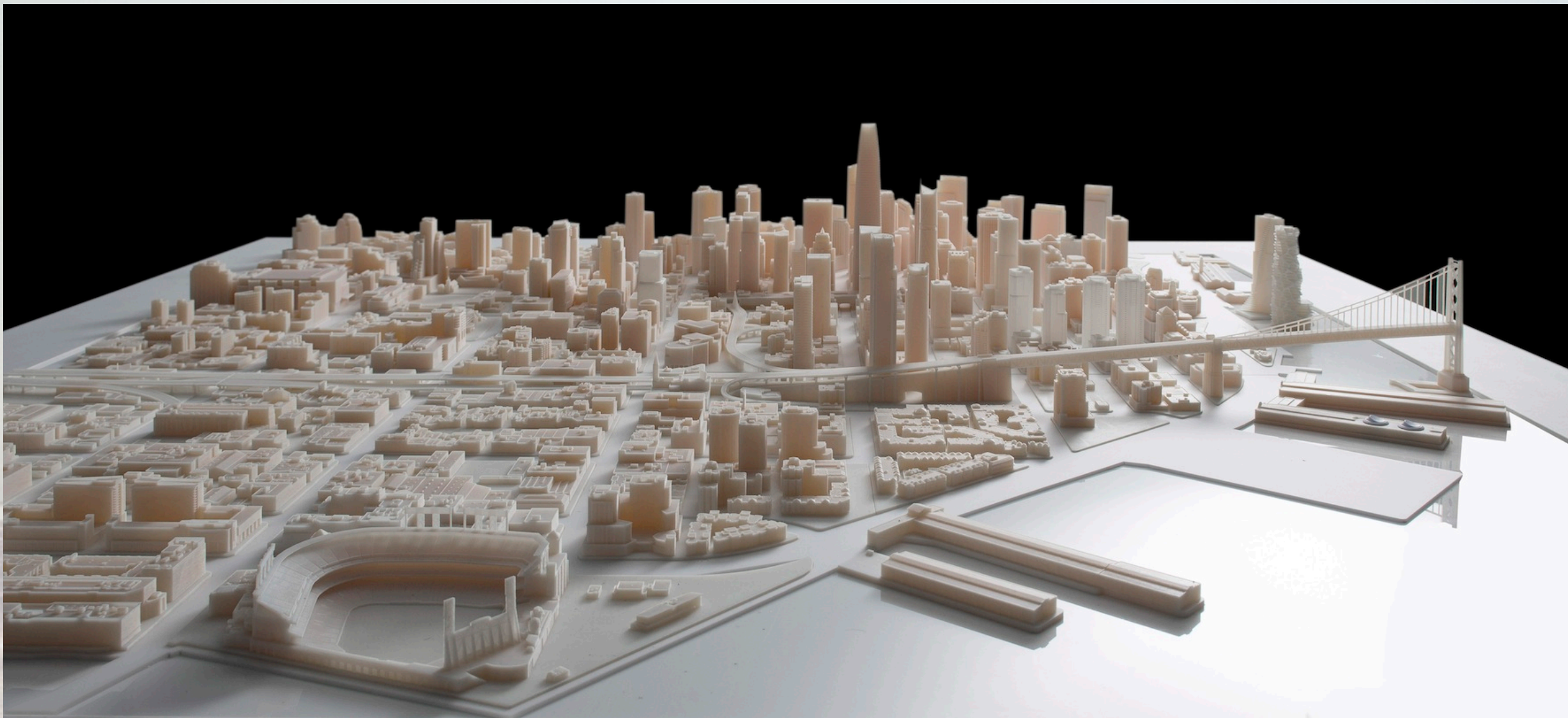


The Periodic Table of Materials





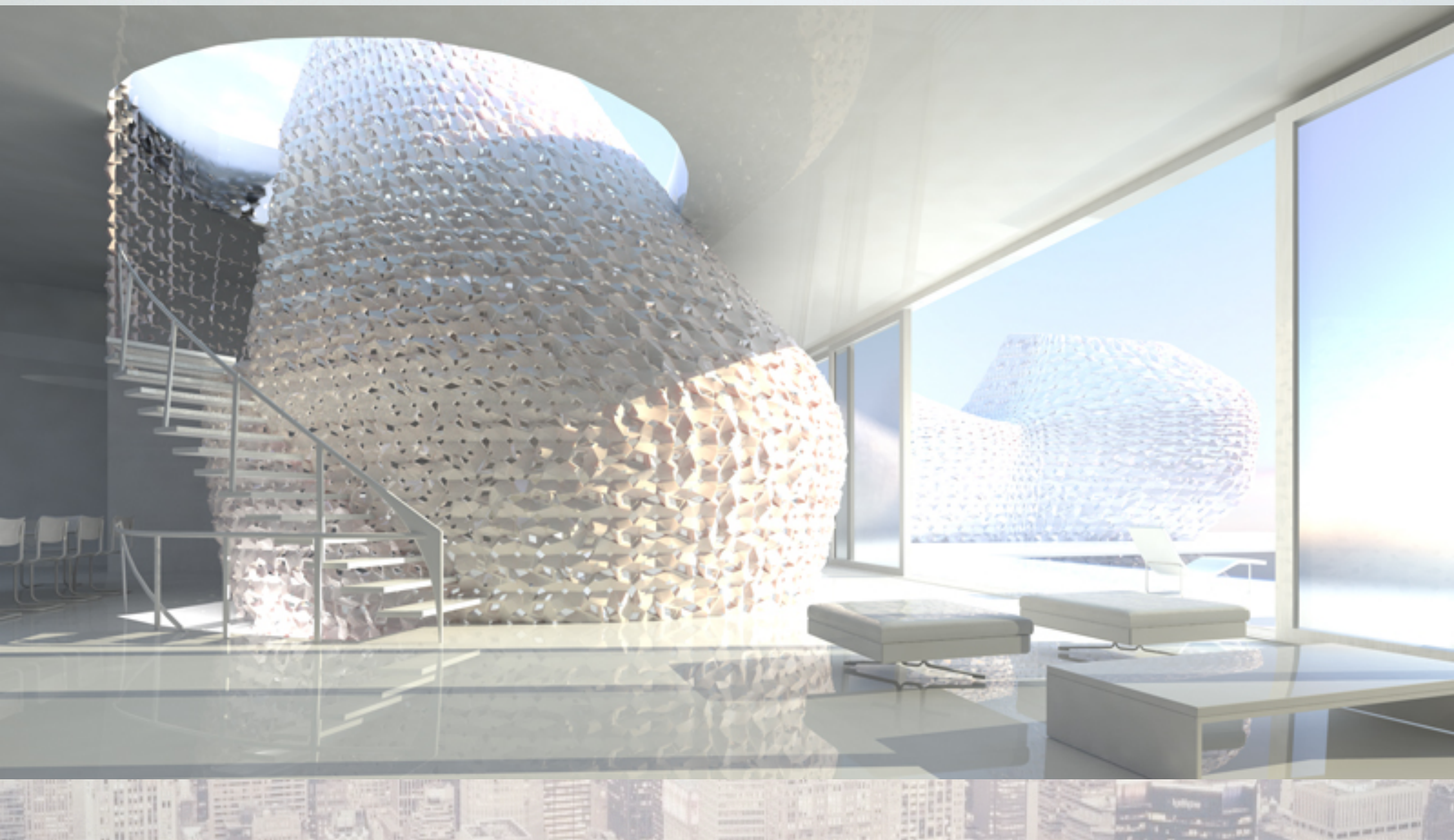
3D TASK



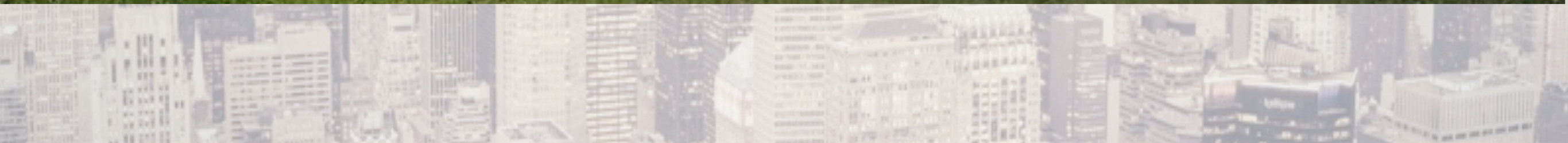
3D TASK



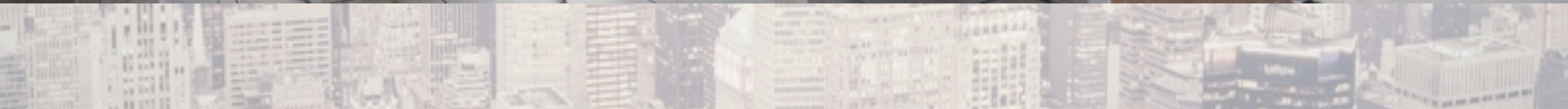
3D TASK



3D TASK



3D TASK

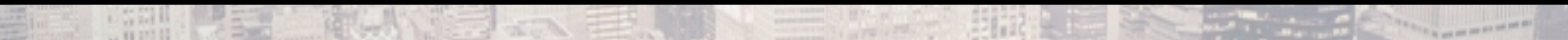


VIRTUÁLNÍ RELITA



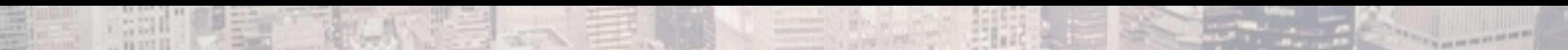
VIRTUÁLNÍ RELITA

<https://www.youtube.com/watch?v=kXVW4sUsh3A>

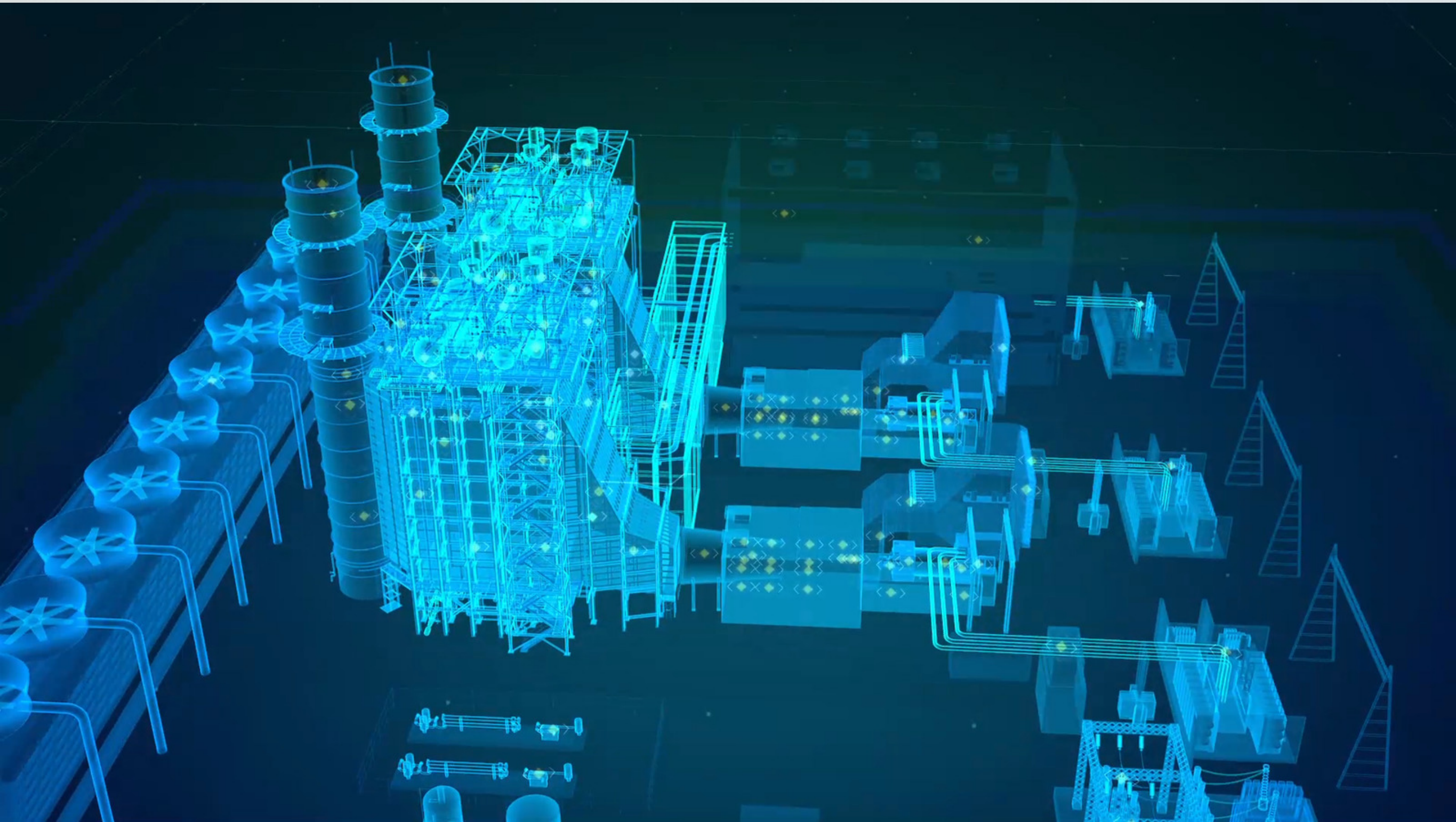


VIRTUÁLNÍ RELITA

<https://www.youtube.com/watch?v=12qd4rdN4N4>



3D MODEL Y BUDOV

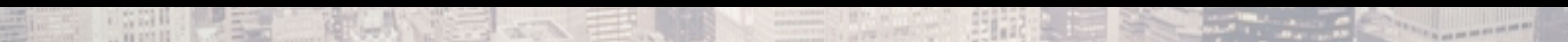


DIGITÁLNÍ STAVEBNICTVÍ

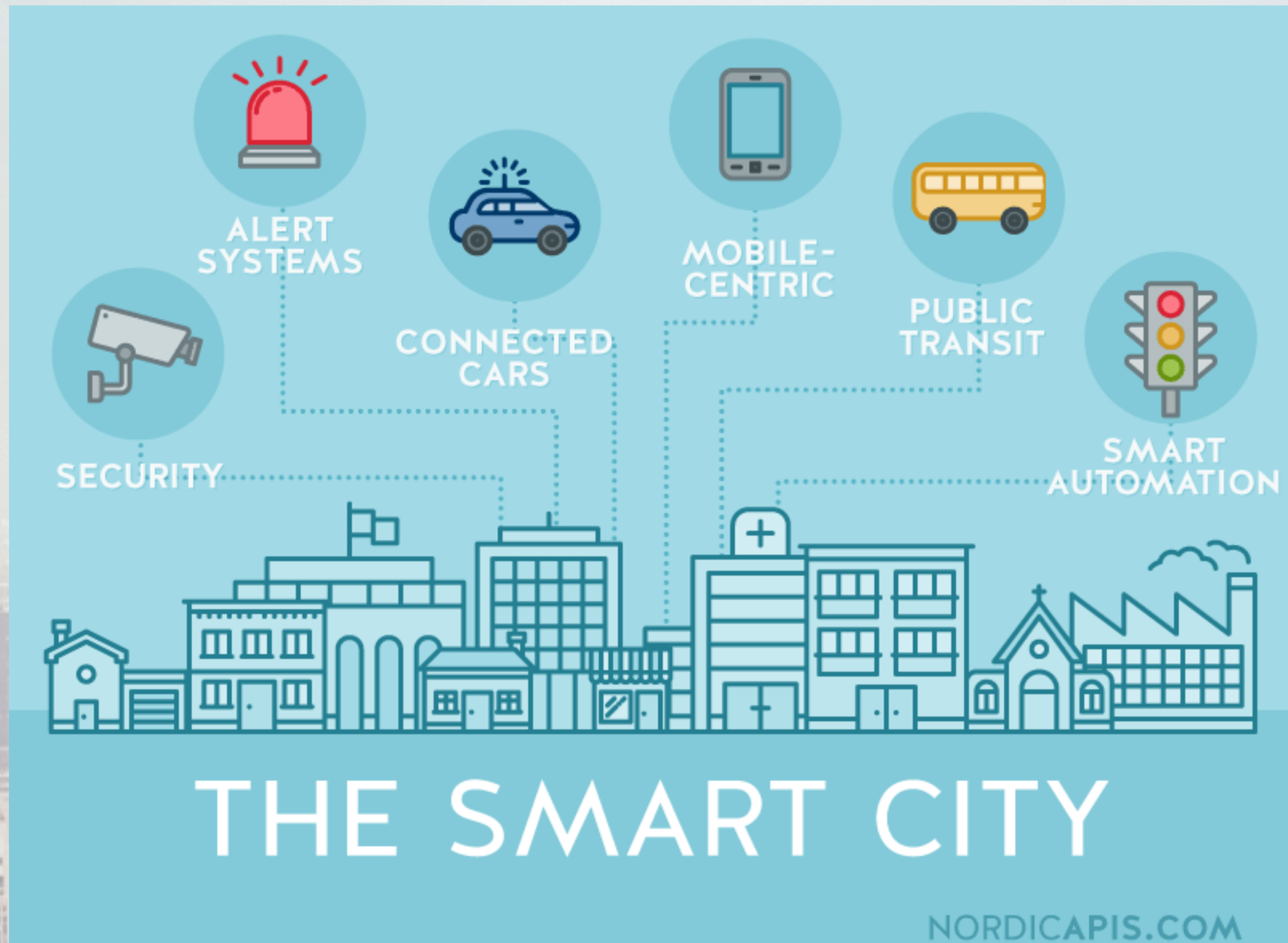


INTERNET OF THINGS

<https://www.youtube.com/watch?v=LVIT4sX6uVs>

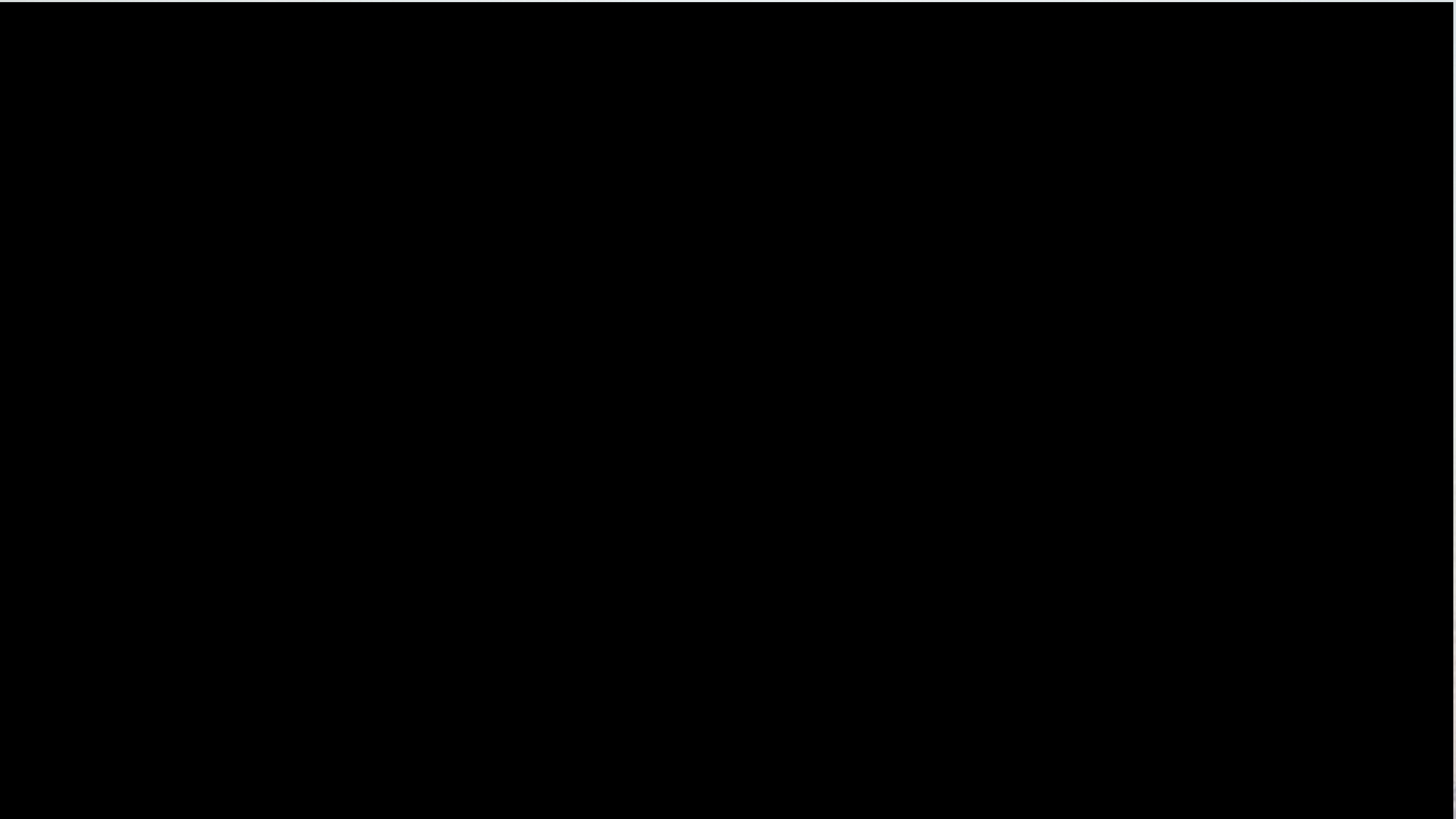


SMART CITIES



SMART CITIES

https://www.youtube.com/watch?v=NpqNW0gW_eM



SMART CITIES



INTEGRATED REPORTING AND ANALYTICS: ACTIONABLE INSIGHT

CITY INTELLIGENCE | SMART OPERATIONS | CITIZEN RELATIONSHIP MANAGEMENT

ENERGY

- SMART BUILDINGS
- CONDITION BASED MAINTENANCE
- REMOTE OUTAGE NOTIFICATION
- SMART WASTE MANAGEMENT

UTILITY

- WATER TREATMENT
- WATER MANAGEMENT
- EQUIPMENT MONITORING/CONTROL
- HAZARDOUS MATERIALS
- EMERGENCY RESPONSE

VEHICLE

- SMART PARKING
- PARKING ENFORCEMENT
- VEHICLE DETECTION
- MOBILE PAYMENTS
- EV CHARGING

TRANSIT

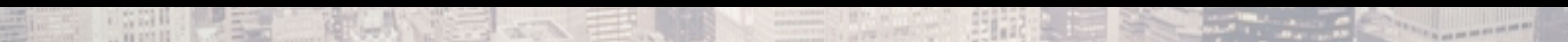
- INTELLIGENT RAIL AND TRANSIT SOLUTIONS
- FLEET MANAGEMENT
- ASSET TRACKING
- MOBILE PAYMENTS
- SMART ROADS

PUBLIC SAFETY

- VIDEO SURVEILLANCE
- REMOTE SECURITY MONITORING
- EMERGENCY RESPONSE
- SMART STREET LIGHTS
- MASS NOTIFICATIONS

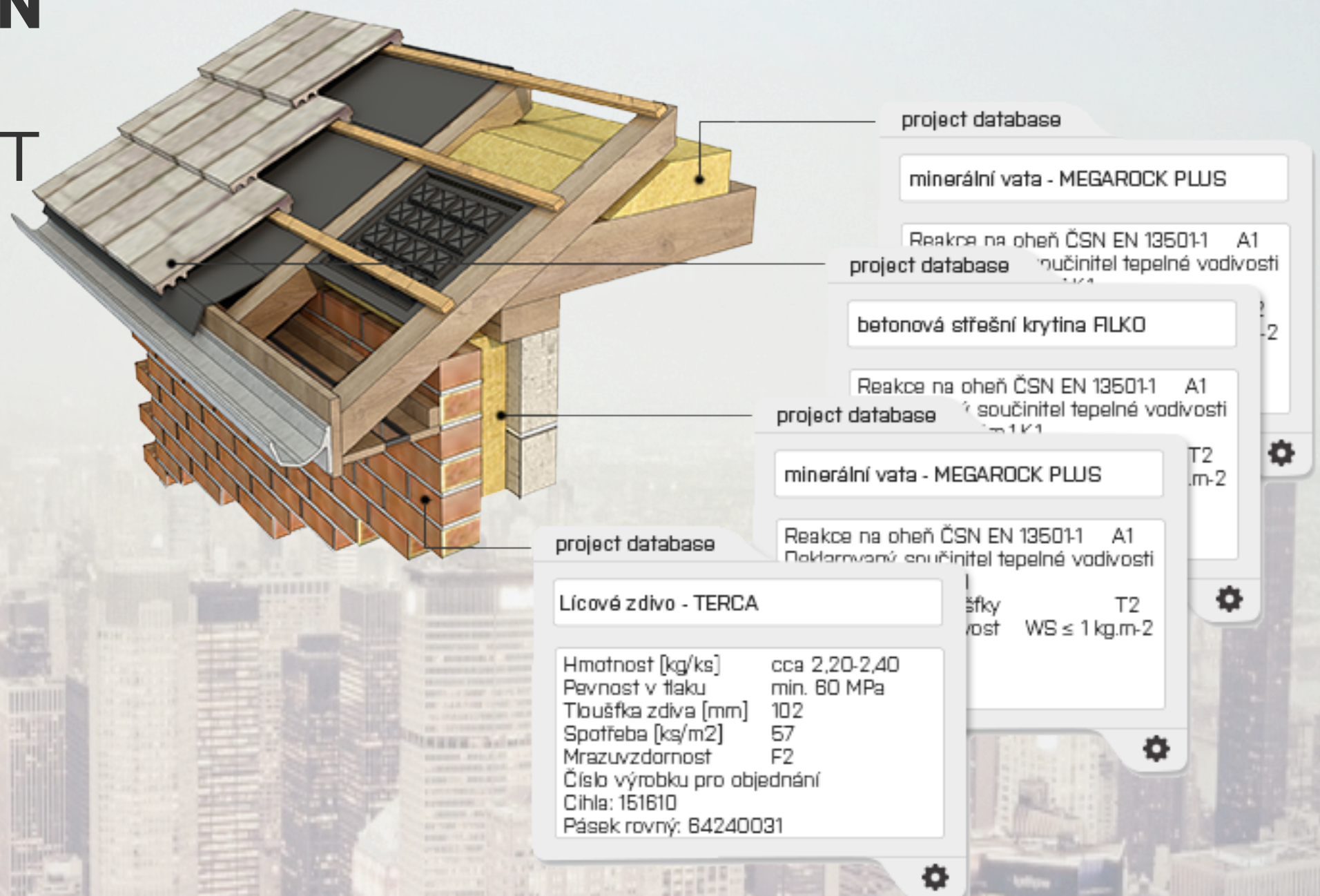
BUDOUCÍ STAVEBNÍ PROCESY

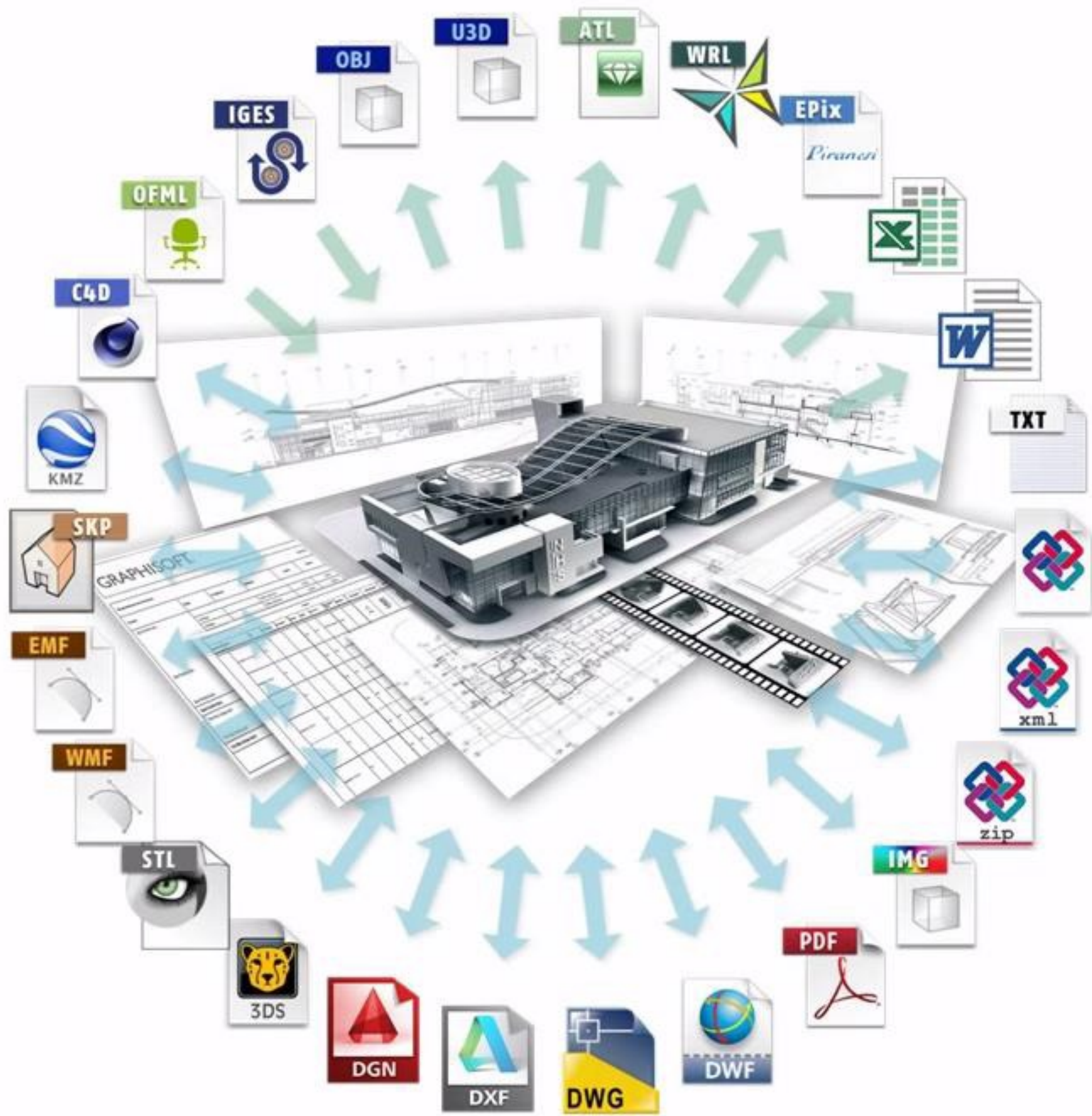
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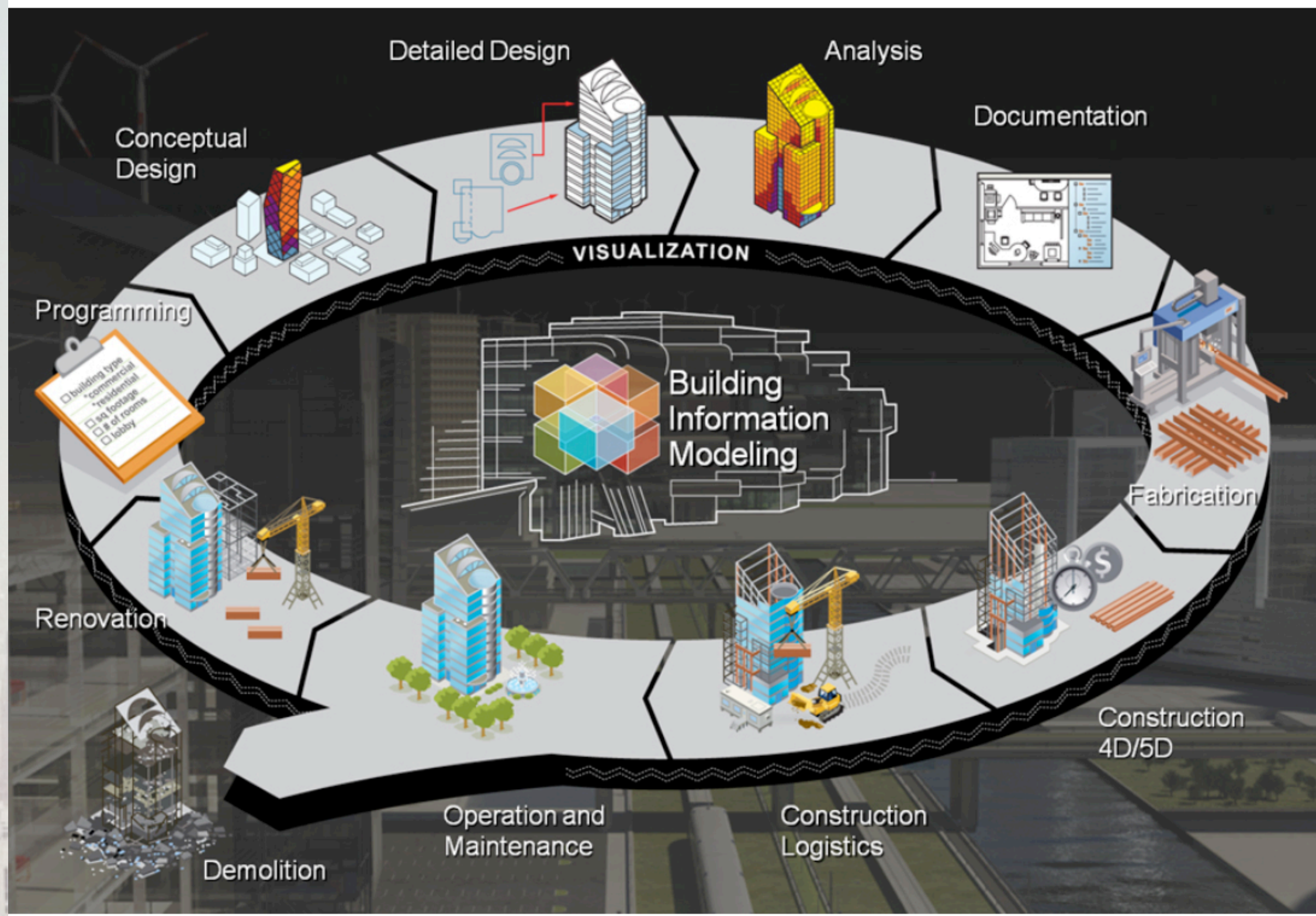
BIM JE PRÁCE S INFORMACEMI

- BUILDING
- INFORMATION
- MANAGEMENT





BIM



LEGISLATIVA

- ✓ povinnost pro některé státy
- ✓ jen pro určité druhy staveb
- ✓ v ČR se řeší koncepce

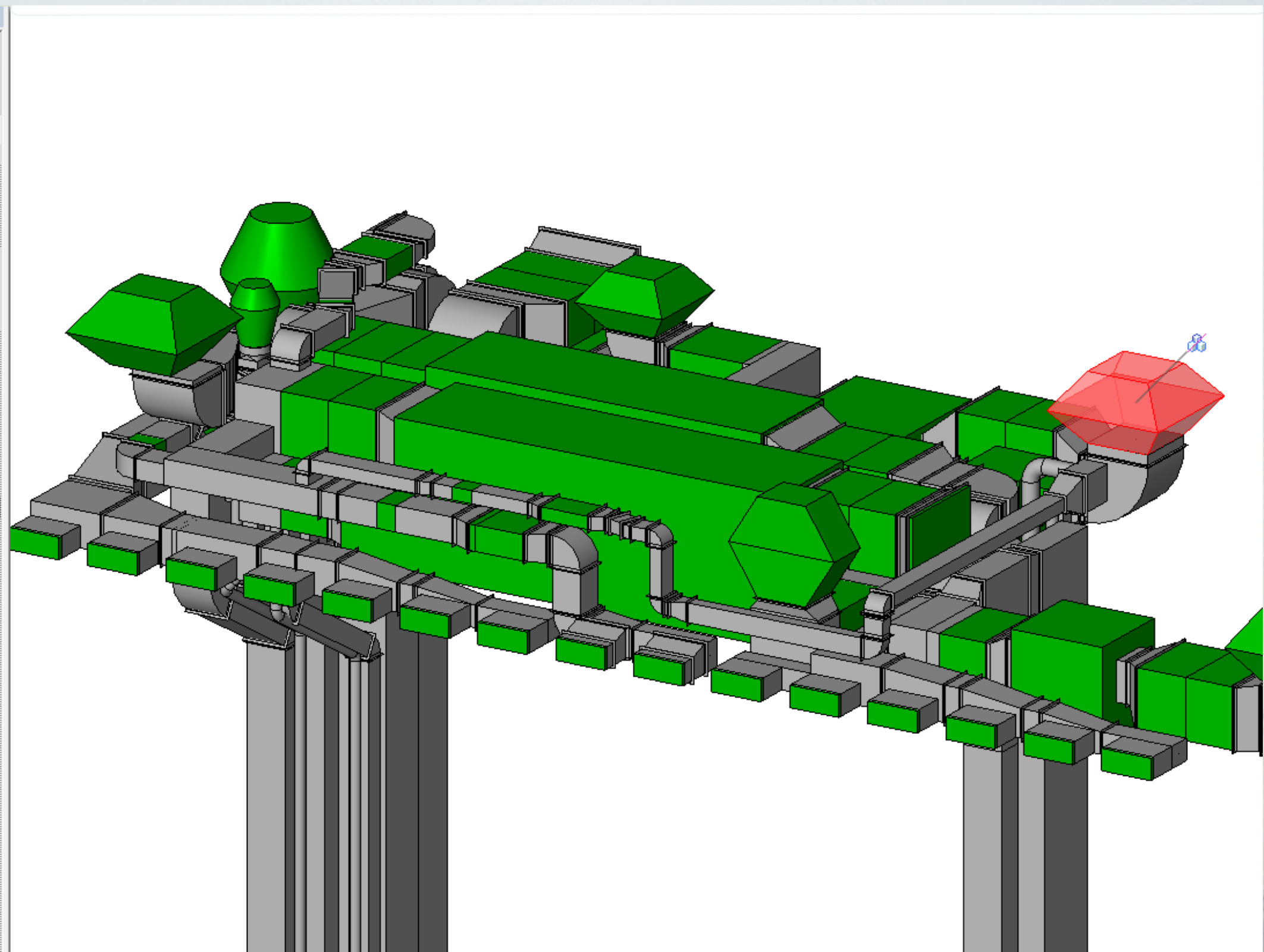


BIM JE PRÁCE S INFORMACEMI



BIM JE PRÁCE S INFORMACEMI

Vlastnosti	
	VZT prvek - ventilátor střešní hranatý
Mechanické zařízení (1)	 Upravit typ
Vazby	
Podlaží	6NP - střecha
Hostitel	Podlaží : 6NP - střecha
Odsazení	2115,0
Přesunout s blízkými prvky	☐
Elektroinstalace – zatížení	
Mechanické	
Rozměry	
Identifikační data	
FM_DELKA	2310,0
FM_KOD BUDOVY	SHQ0
FM_SIRKA	2310,0
FM_TECHNOLOGICKY CE...	BUD_VZT
FM_TYP ZARIZENI	OSTATNI
FM_VYSKA	1360,0
Obrázek	
Komentáře	
Označení	A41.08.66
FM_PRIKON	
FM_SERIOVE CISLO	
FM_RF ID	
FM_DODAVATEL	
FM_STANDARD	
FM_CENA ZA VYMENU	
FM_PORIZOVACI CENA	
FM_ULOZENI DOKUMENT...	
FM_KOD MISTNOSTI	
FM_ULOZENI MANUALU ...	
FM_ULOZENI REVIZE	
FM_ZIVOTNOST	
FM_UVEDENO DO PROVO...	
FM_ZARUKA DO	
FM_DATUM REVIZE	
FM_PRISTI REVIZE	
FM_MNOZSTVI VZDUCHU...	
FM_MNOZSTVI VZDUCHU...	
FM_POCET FILTRU	
FM_PROVOZNI CAS	
FM_HMOTNOST	



VÍČ PRÁCE PRO PROJEKTANTY?

- JAKÁ DATA VKLÁDAT DO PROJEKTŮ?
- JAK POJMENOVÁVAT PARAMETRY?



VÍC PRÁCE PRO PROJEKTANTY?

Template Category	Pumps			
Template Version	Draft for Public Consultation			
Category Description	Devices for moving fluid to serve (or serving) a building services system.			
Classification System				
Classification	Value			
Suitability for Use				
Information Category	Parameter Name	Value	Units	Notes
Manufacturer Data				
Specifications	Manufacturer		Text	
Specifications	Internet Address		URL	
Specifications	Product Model Name		Text	
Specifications	Product Model Number (Code)		Text	
Specifications	Special Features		Text	
Specifications	CE Approval		Text	Yes, No or the four digit identification number of the notified body involved in the conformity assessment procedure.
Specifications	Product Literature Webpage		URL	
Construction Data				
Specifications	Application		Text	e.g. LTHW, CHW, etc.
Specifications	Pump Type		Text	e.g. End Suction, Inline, Glandless, Vertical multistage etc
Specifications	Configuration		Text	e.g. close coupled, long coupled, split coupled etc
Specifications	Drive Type		Text	e.g. Direct, Belt, Integrated drive
Specifications	Casing Material		Text	e.g. cast iron, ductile iron, bronze etc
Specifications	Impeller Material		Text	e.g. bronze, plastic etc
Specifications	Shaft Material		Text	
Specifications	Shaft Seal Type		Text	e.g. carbon/silicon carbide etc
Specifications	Casing & Base Finish / Colour		Text	RAL Colour
Specifications	Connection Type		Text	
Dimensional Data				
Specifications	Impeller Size (Ø)		mm	to be a range, user input
Specifications	Number of Impellers		text	
Specifications	Suction Connection (Ø)		mm	
Specifications	Discharge Connection (Ø)		mm	
Specifications	Overall Length		mm	
Specifications	Overall Width		mm	
Specifications	Overall Height		mm	
Specifications	Operating Weight		kg	
Performance Data				
Specifications	Speed Type			(fixed or variable)

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https://www.youtube.com/channel/UCnGVGyptPojjBmkK4R1xYnA/videos?sort=dd&view=0&shelf_id=0



knihovna produktů pro Graphisoft ArchiCAD

VERTI

PRÁCE S KNIHOVNOU

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https://www.youtube.com/channel/UCnGVGyptPojjBmkK4R1xYnA/videos?sort=dd&view=0&shelf_id=0



představuje



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představuje



GRAPHISOFT
ARCHICAD

DĚKUJI ZA POZORNOST

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www.bimproject.cz

