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# Final Conference

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SMART PEOPLE – SMART ECONOMY – SMART CITIES



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Bydgoszcz transition towards climate neutrality, and application of a “smart people” and “smart economy” strategy: lessons learnt from EU cities



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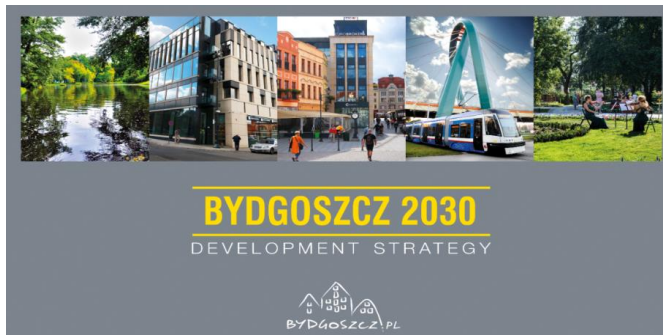


# List of activities taken into account into Bydgoszcz Replication Plan

(1) Intervention	PESTEL	Energy scenarios	Techno-economic	Replication plan
E-mobility	x	x	x	x
PV on public building	x	x	x	x
Smart lighting	x	x	x	x
Open data GIS portal	x			x



# Replication Plan activities



Category	Sub-category	Smart Actions of Bydgoszcz	Interventions	LHC smart interventions
<b>MOBILITY</b>	Electric vehicles	e-mobility in Bydgoszcz	<ul style="list-style-type: none"> <li>210 EV charging points in the city to be located in the city by Dec. 2020 – now : 01. 2022</li> <li>30 e-buses to be procured in 2020 – <b>this put on hold</b></li> </ul>	<p><b>Nantes:</b> 24-m e-bus, charging stations,  <b>Hamburg:</b> e-bus, charging infrastructure for e-buses  <b>Helsinki:</b> 12 e-buses, e-bus fast charging stations, e-bike charging stations</p>
<b>CITY INFRASTRUCTURES</b>	Building Integrated RES	PV on public buildings	<ul style="list-style-type: none"> <li>a solar plant on the newly built object of the Astoria Swimming Pools, the total installation power est. at app. 134 kW</li> <li>RES investments on 11 facilities with a total capacity of app. 229.5 kW</li> <li>Installation of photovoltaic panels on the roof surface of the unloading hall by PRONATURA (Intermunicipal Waste Treatment Facility)</li> <li>Construction of photovoltaic power plants together with energy storage, infrastructure and intelligent control system of the main MV switchgear at MWIK facilities (Municipal Water and Sewage Company):               <ul style="list-style-type: none"> <li>- for Fordon District 2 MW,</li> <li>- for the Czyżkówko District 2 MW water intake,</li> <li>- for the Las Gdanski Water Catchment 1MW</li> </ul> </li> </ul>	<p><b>Nantes:</b> solar thermal panels, PV plants (also non-technical)  <b>Hamburg:</b> large scale solar plant  <b>Helsinki:</b> solar power plants</p>
	Public lighting	Smart lighting system	<ul style="list-style-type: none"> <li>16 000 lighting points to be replaced as LED</li> </ul>	<p><b>Nantes:</b> public lighting optimization, gradation  <b>Hamburg:</b> smart street lighting  <b>Helsinki:</b> dynamic public lighting (co-designed with residents)</p>
<b>ICT ACTIONS</b>	Urban platform and ICT developments	Open data GIS portal	<ul style="list-style-type: none"> <li>Open data GIS portal (INFOSTRADA)</li> </ul>	

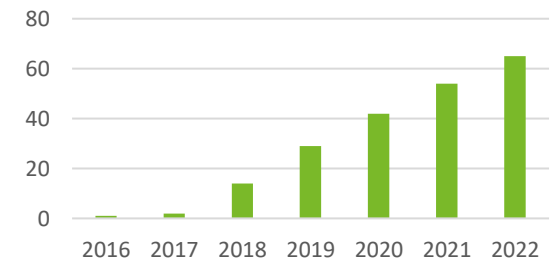


# PVs on public buildings – from 0 to 770

- Bydgoszcz completed the installation of over 770 PV panels on 55 municipal buildings
- With power 1050 KW - thanks to them, free electricity from the sun / 800 MWh per year
- Now city is in proces of investment worth 500 000 00 Euro for next 11 buildings was possible thanks to the high support from the EU.



Figure 1: PV plant in municipal buildings in Bydgoszcz



# RES in Bydgoszcz – next steps



- Development of inventory of PV farms location in 2020 r.
- Choice of 10 locations: a total of 70 hectares of wastelands, brownfields or landfills
- The potential at the level of 40 MW
- The analysis of the optimal business model is currently underway, EUCF grant for elaboration of concept for PV farms
- Possibility of applying for funds from National Environmental Fund



# Energy self-sufficiency

- Concept for Energy self-sufficiency, analysing and discussing possibility for Energy Hub (Energy cluster) for Bydgoszcz, own production and consumption of Energy for the municipal purposes
- Learning and testing within eNeuron project (H2020)
- Optimising the design and operation of local energy communities acting as energy hubs in order to develop and apply pioneering software and hardware solutions and introducing new governance models.



# Thank you for your attention!

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