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SUSTAINABLE PLACES

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  - Other EU projects with pilots: we can help you. We can collaborate
  - Legislation needs standards, objective tools
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SUSTAINABLE PLACES

SPHERE DEMO PILOT TNO PRIVACY EXAMPLE

TNO SPHERE PILOT MEASURED PARAMETERS

Portal Klimaatgarant

Filename	Description	Interval	ENTITIES		MAGNITUDES		STATISTICS		SAMPLING FREQ.		DATA USE		DATA CONTROL		TOTAL
W.._Energy_use_HP_and_fan_kWh.csv	kWh-meter for heat pump and balanced ventilation	Daily	HOME	0.500	KWH	0.500	MEAN	0.100	DAY	0.05	CLOUD	0.001	CLOUD	0.00	1250
W.._Energy_prod_PV_kWh.csv	kWh-meter PV-production	Daily	HOME	0.500	PV PROD	0.010	MEAN	0.100	DAY	0.05	CLOUD	0.001	CLOUD	0.00	25
W.._Energy_use_HP_cooling_kWh.csv	kWh-meter cooling heat pump	Daily	EQUIPMENT	0.500	KWH	0.500	MEAN	0.100	DAY	0.05	CLOUD	0.001	CLOUD	0.00	1250
W.._Energy_use_HP_heating_kWh.csv	kWh-meter heating heat pump	Daily	EQUIPMENT	0.500	KWH	0.500	MEAN	0.100	DAY	0.05	CLOUD	0.001	CLOUD	0.00	1250
W.._Energy_use_HP_DHW_kWh.csv	kWh-meter domestic hot water preparation heat pump	Daily	EQUIPMENT	0.500	KWH	0.500	MEAN	0.100	DAY	0.05	CLOUD	0.001	CLOUD	0.00	1250
W.._Energy_use_HP_standby_kWh.csv	kWh-meter standby heat pump	Daily	EQUIPMENT	0.500	KWH	0.500	MEAN	0.100	DAY	0.05	CLOUD	0.001	CLOUD	0.00	1250
W.._Outside_temperature_C.csv	Outside temperature	Hour	ENVIRONTM	0.001	TEMP	0.500	MEAN	0.100	HOUR	0.10	CLOUD	0.001	CLOUD	0.00	5
W.._Temp_livingroom_C.csv	Temperature livingroom	Hour	ROOM	1.000	TEMP	0.500	MEAN	0.100	HOUR	0.10	CLOUD	0.001	CLOUD	0.00	5000
W.._Setpoint_livingroom_C.csv	Setpoint livingroom	Hour	ROOM	1.000	TEMP	0.500	MEAN	0.100	HOUR	0.10	CLOUD	0.001	CLOUD	0.00	5000
W.._Energy_use_Eheater_Amp.csv	Ampere used for electric room heating	Hour	EQUIPMENT	0.500	AMP	0.500	MEAN	0.100	HOUR	0.10	CLOUD	0.001	CLOUD	0.00	2500
W.._Use_Eheater_perc_per_day.csv	Percentage use per day for electric room heating	Daily	ROOM	1.000	PU	0.010	MEAN	0.100	DAY	0.05	CLOUD	0.001	CLOUD	0.00	50

Portal Smart energy meter

Filename	Description	Interval													
W.._EnergyUse_SmartMeter_kWh.csv	Energy use registrated by smart energy meter	15MIN	HOME	0.500	KWH	0.500	MEAN	0.100	15MIN	0.50	CLOUD	0.001	CLOUD	0.00	12500
W.._EnergyDeliverd_SmartMeter_kWh.csv	Energy deliver registrated by smart energy meter	15MIN	HOME	0.500	KWH	0.500	MEAN	0.100	15MIN	0.50	CLOUD	0.001	CLOUD	0.00	12500

Portal Flair balanced ventilation system

Filename	Description	Interval													
W.._Fan_position_[-].csv	Position of the fan (supply and exhaust): 1 (minimum), 2, 3, 4 (maximum)	15MIN	EQUIPMENT	0.500	PC	0.5	MEAN	0.100	15MIN	0.50	CLOUD	0.001	CLOUD	0.00	12500
W.._supply_[m3 per h].csv	Supply flow in m^3/h	15MIN	EQUIPMENT	0.500	AF	0.1	MEAN	0.100	15MIN	0.50	CLOUD	0.001	CLOUD	0.00	2500
W.._exhaust_[m3 per h].csv	Exhaust flow in m^3/h	15MIN	EQUIPMENT	0.500	AF	0.1	MEAN	0.100	15MIN	0.50	CLOUD	0.001	CLOUD	0.00	2500
W.._pressure_supply_[Pa].csv	Supply pressure in Pa	15MIN	EQUIPMENT	0.500	PRES	0.1	MEAN	0.100	15MIN	0.50	CLOUD	0.001	CLOUD	0.00	2500
W.._pressure_exhaust_[Pa].csv	Exhaust pressure in Pa	15MIN	EQUIPMENT	0.500	PRES	0.1	MEAN	0.100	15MIN	0.50	CLOUD	0.001	CLOUD	0.00	2500

TNO SPHERE PILOT MEASURED PARAMETERS

Portal Klimaatgarant

Filename	Description	Interval	ENTITIES		MAGNITUDES		STATISTICS		SAMPLING FREQ.		DATA USE		DATA CONTROL		TOTAL
W..._Energy_use_HP_and_fan_kWh.csv	kWh-meter for heat pump and balanced ventilation	Daily	HOME	0.500	KWH	0.500	MEAN	0.100	DAY	0.050	CLOUD	0.001	INDIV.CONTR	1.000	1.25
W..._Energy_prod_PV_kWh.csv	kWh-meter PV-production	Daily	HOME	0.500	PV PROD	0.010	MEAN	0.100	DAY	0.050	CLOUD	0.001	INDIV.CONTR	1.000	0.025
W..._Energy_use_HP_cooling_kWh.csv	kWh-meter cooling heat pump	Daily	EQUIPMENT	0.500	KWH	0.500	MEAN	0.100	DAY	0.050	CLOUD	0.001	INDIV.CONTR	1.000	1.25
W..._Energy_use_HP_heating_kWh.csv	kWh-meter heating heat pump	Daily	EQUIPMENT	0.500	KWH	0.500	MEAN	0.100	DAY	0.050	CLOUD	0.001	INDIV.CONTR	1.000	1.25
W..._Energy_use_HP_DHW_kWh.csv	kWh-meter domestic hot water preparation heat pump	Daily	EQUIPMENT	0.500	KWH	0.500	MEAN	0.100	DAY	0.050	CLOUD	0.001	INDIV.CONTR	1.000	1.25
W..._Energy_use_HP_standby_kWh.csv	kWh-meter standby heat pump	Daily	EQUIPMENT	0.500	KWH	0.500	MEAN	0.100	DAY	0.050	CLOUD	0.001	INDIV.CONTR	1.000	1.25
W..._Outside_temperature_C.csv	Outside temperature	Hour	ENVIRONTM	0.001	TEMP	0.500	MEAN	0.100	HOUR	0.100	CLOUD	0.001	INDIV.CONTR	1.000	0.005
W..._Temp_livingroom_C.csv	Temperature livingroom	Hour	ROOM	1.000	TEMP	0.500	MEAN	0.100	HOUR	0.100	CLOUD	0.001	INDIV.CONTR	1.000	5
W..._Setpoint_livingroom_C.csv	Setpoint livingroom	Hour	ROOM	1.000	TEMP	0.500	MEAN	0.100	HOUR	0.100	CLOUD	0.001	INDIV.CONTR	1.000	5
W..._Energy_use_Eheater_Amp.csv	Ampere used for electric room heating	Hour	EQUIPMENT	0.500	AMP	0.500	MEAN	0.100	HOUR	0.100	CLOUD	0.001	INDIV.CONTR	1.000	2.5
W..._Use_Eheater_perc_per_day.csv	Percentage use per day for electric room heating	Daily	ROOM	1.000	PU	0.010	MEAN	0.100	DAY	0.050	CLOUD	0.001	INDIV.CONTR	1.000	0.05

Portal Smart energy meter

Filename	Description	Interval													
W..._EnergyUse_SmartMeter_kWh.csv	Energy use registrated by smart energy meter	15MIN	HOME	0.500	KWH	0.500	MEAN	0.100	15MIN	0.500	CLOUD	0.001	INDIV.CONTR	1.000	12.5
W..._EnergyDeliverd_SmartMeter_kWh.csv	Energy deliver registrated by smart energy meter	15MIN	HOME	0.500	KWH	0.500	MEAN	0.100	15MIN	0.500	CLOUD	0.001	INDIV.CONTR	1.000	12.5

Portal Flair balanced ventilation system

Filename	Description	Interval													
W..._Fan_position_[-].csv	Position of the fan (supply and exhaust): 1 (minimum), 2, 3, 4 (maximum)	15MIN	EQUIPMENT	0.500	PC	0.5	MEAN	0.100	15MIN	0.500	CLOUD	0.001	INDIV.CONTR	1.000	12.5
W..._supply_[m3 per h].csv	Supply flow in m^3/h	15MIN	EQUIPMENT	0.500	AF	0.1	MEAN	0.100	15MIN	0.500	CLOUD	0.001	INDIV.CONTR	1.000	2.5
W..._exhaust_[m3 per h].csv	Exhaust flow in m^3/h	15MIN	EQUIPMENT	0.500	AF	0.1	MEAN	0.100	15MIN	0.500	CLOUD	0.001	INDIV.CONTR	1.000	2.5
W..._pressure_supply_[Pa].csv	Supply pressure in Pa	15MIN	EQUIPMENT	0.500	PRES	0.1	MEAN	0.100	15MIN	0.500	CLOUD	0.001	INDIV.CONTR	1.000	2.5
W..._pressure_exhaust_[Pa].csv	Exhaust pressure in Pa	15MIN	EQUIPMENT	0.500	PRES	0.1	MEAN	0.100	15MIN	0.500	CLOUD	0.001	INDIV.CONTR	1.000	2.5
W..._bypass_(1=opening,2=closing,3=open,4=closed)_[-].csv	Bypass valve for the heat recovery	15MIN	EQUIPMENT	0.500	PC	0.5	MEAN	0.100	15MIN	0.500	CLOUD	0.001	INDIV.CONTR	1.000	12.5
W..._frost_control_(2=off,7=heaterON)_[-].csv	Mode of the frost protection: 2= frost protection off, 7= electric heater on	15MIN	EQUIPMENT	0.500	PC	0.5	MEAN	0.100	15MIN	0.500	CLOUD	0.001	INDIV.CONTR	1.000	12.5
W..._power_heater_[%].csv	Power of the electric heater in case of frost protection	15MIN	EQUIPMENT	0.500	KWH	0.5	MEAN	0.100	15MIN	0.500	CLOUD	0.001	INDIV.CONTR	1.000	12.5
W..._temp_from_outside_[C].csv	Temperature from outside before the heat recovery unit	15MIN	EQUIPMENT	0.500	TEMP	0.5	MEAN	0.100	15MIN	0.500	CLOUD	0.001	INDIV.CONTR	1.000	12.5

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Privacy problems and solutions in EU project BIMSPEED