

# Making UM's real estate more sustainable

Focus on energy efficiency & challenges for monumental buildings

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# International context: climate agreement

Paris Agreement (UNFCCC): limit the increase in global average temperature to 1.5 °C

Nationally Determined Contribution (NDC) to the Paris Agreement:  
Collective EU target: reduce greenhouse gas emissions by at least 40% by 2030 compared to 1990 levels

Long-Term Climate Strategies under Paris Agreement (2050)  
e.g. DE (2016): 80 – 95 % or more below 1990 levels by 2050  
EC (2018) calls for climate neutral Europe by 2050

# National context

NL Plan under Paris Agreement:

(nov. 2018) Draft Integrated National Energy and Climate Plan 2021-2030: 49% (55%) reduction in greenhouse gas emissions by 2030, compared to 1990 -> 49 Mt CO<sub>2</sub>-eq

NL Reduction target 2021-2030 for Built Environment:

3.4 Mt CO<sub>2</sub>-eq extra reduction (7% of total reduction target) on top of ECN-projections (2017)

Emissions in 2030 after implementation Climate Agreement: 15.3 Mt

NL Concept climate Law: 95% CO<sub>2</sub>-reduction in 2050 compared to 1990

# Consequences UM

## EPBD - EU Energy Performance of Buildings Directive (2003, 2010)

Nearly zero-energy buildings (NZEBs):

- New buildings (2022)
- Major renovations (building envelope) excluding monuments

## NL Energy agreement (2013)

Energylabel for existing office buildings excluding monuments:

- 2023: label C
- 2030: label A

# Consequences UM

(Concept) NL Climate agreement – Built Environment:

- WO Sectoral Roadmap (VSNU): use of natural opportunities for energy efficiency measures to reach 2030 en 2050 goals
- By 2021: final energy efficiency standard for 2050

# Next step for UM

## Current goals of UM for 2020:

- 35% renewable electricity produced by UM or in partnership
- 10% energy efficiency over 2017-2020 (MJA3)

## Next steps:

- Monumental buildings: heating grid (residual heat) or not?
- Use UM sustainability fund (revolving fund) for additional energy efficiency measures in short term
- Develop a UM energy vision for the built environment with ambitions for 2030 and 2050

# Questions?

# R. Duijzings, FS Vastgoed.

Techneut

Elektrotechniek / Meet & Regeltechniek

Natuurkunde



# Installatie bedrijf. (UM)

Utiliteits gebouwen (Industrie)

Constructies

Bouwfysica, Uns 40 koudebruggen

# Renovatie Uns 50

## Verduurzamen monumenten

Warmtenet Maastricht  
Verduurzamen kerkelijke gebouwen  
Verduurzamen UM monumenten



# TS 53 A-vleugel

Monumentencommissie, integraal ontwerp

Aardgasdiscussie

Voorbeeld voor kengetallen

Enkelglas (condens) versus HR (++) glas

Buitenschil isolatie

Koudebruggen

Ventilatie

Vocht (Dauwpunt/dampspanning)

Tocht (koudeval)



# Besluitvorming

CBB akkoord

# Vragen ?

