

MN6 Energy Agency



Our Agency provides energy management services for the clients since 2011, which is a systematic and transparent manner to handle all the company's energy related questions – in order to decrease the high energy costs and solve all energy related issues. Our company is an independent, private owned energy auditor organization accredited by the Energy and Public Utility Regulatory Authority since 2016.

- As a member of the Hungarian Green Building Council we are committed to the spread of environmentally conscious construction.



Who am I?



- I started my carrier by **Unicredit Bank Hungary**, where I was responsible for financing large companies' energy efficiency projects, as part of the VIP energy team.
- In 2011, as partner and co-founder of the **MN6 Energy Agency** I managed energy compliance reports according to the EU EED by international companies in Hungary,
- From year 2016, I supported the introduction of ISO 50001 energy management systems by companies as an internal energy auditor.
- From 2017 **WELL AP**, Low and Zero Carbon FS in the frame of BREEAM and energy modelling in LEED certifications.
- From 2018 as a member of the HuGBC member of the **WELL** and from **2021 Taxonomy Working Group**.



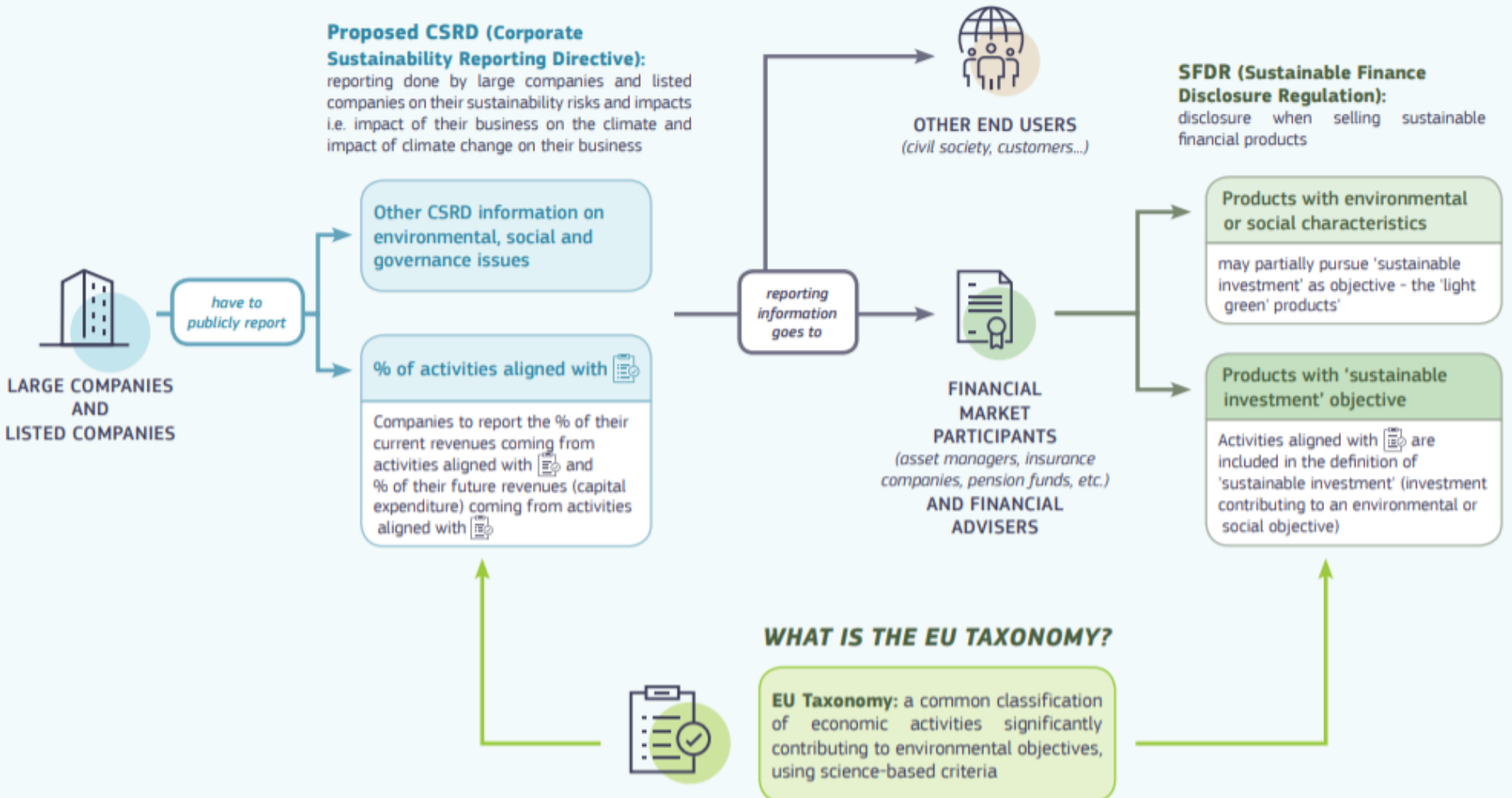
EU Taxonomy in the building sector

1. What are the EU Taxonomy technical criteria in the real estate sector? – brief introduction of the 4 main parts
2. Challenges or possibilities? Barriers or motivation?
3. Where can we start? Possibilities of the green building standards – LEED, BREEAM and WELL Building standard
4. The role of the Hungarian National Bank



HOW DOES THE EU TAXONOMY FIT WITHIN THE SUSTAINABLE FINANCE FRAMEWORK?

Two examples when the taxonomy will be used:
in disclosures of financial products and reporting by large companies and listed companies



1. Construction of new buildings

Mitigation:

- Annual primary energy demand (PED) 10% lower than the threshold set for the nearly zero-energy building (NZEB) requirements in national measures implementing Directive 2010/31/EU (obligation in Hungary starts from 30.06.2022)
- building larger than 5000m²
 - undergoes testing for air-tightness and thermal integrity
 - life-cycle Global Warming Potential (GWP) calculation

DNSH criteria:

- climate risk analysis
- Effective water appliances,
- supporting circular economy (EU Construction and Demolition Waste Management Protocol),
- Presense of chemicals, dust and contaminants
- Protection of biodiversity

2. Building renovation

- **'Major renovation'** implementing Directive 2010/31/EU.
- The initial primary energy demand and the estimated improvement is based on a **detailed building survey, an energy audit**
- 30 % improvement results from an actual reduction in primary energy demand (where the reductions in net primary energy demand through renewable energy sources are not taken into account), and can be achieved through a succession of measures **within a maximum of three years.**

+DNSH



3. Aquisition and ownership of buildings

- EPC Class „A” energy performance
- As an alternative, the building is within the **top 15% of the national or regional building stock expressed as operational Primary Energy Demand (PED)** and demonstrated by adequate evidence, which at least compares the performance of the relevant asset to the performance of the national or regional stock built before 31 December 2020 and at least distinguishes between residential and non-residential buildings.
- Where building is built after 31.12. 2020, criteria equivalent to new construction
- If the building is a large non-residential building, with with an effective rated output for heating systems, systems for combined space heating and ventilation, air-conditioning systems or systems for combined air-conditioning and ventilation of over 290 kW+ DNSH criteria



Construction and real-estate - Other categories in EU Taxonomy

4. Installation, maintenance and repair of energy efficiency equipment
5. Installation, maintenance and repair of charging stations for electric vehicles in buildings (and parking spaces attached to buildings)
6. Installation, maintenance and repair of instruments and devices for measuring, regulation and controlling energy performance of buildings
7. Installation, maintenance and repair of renewable energy technologies



Study by European Green Building Councils (2021)

Key takeaways:

4 of Europe's most renowned Green Building Councils were joined by 23 financial and real estate organisations.

- 62 real building case studies in 11 EU countries.
- 26 with green certification
- 22 new construction, 4 renovations, 36 acquisition
- Diverse building functions (logistics, residential buildings, offices and more)
- 1 full compliance

- new constructions scored highest in terms of Taxonomy eligibility and also had the least difficulty in demonstrating eligibility for the DNSH criteria.
- For all 3 activities a strong correlation between eligibility and certification.
- Optimisation of building data capture and management needed



Problems detected

- **Improvement and standard methodology of Energy Performance Certificates needed** - the reliability of EPCs is low should be improved in terms of compliance, usability and reliability with EU wide standard methodology
- **Carbon emissions limitation, not just calculation** – a roadmap to reach to goals! over time by applying an emission trajectory that shall not be exceeded and resulting in net zero carbon emissions at the latest by 2050 or in line with a recognised science-based targets approach.
- **Collection of building data and optimisation of large building portfolio management** – support needed from policy level



Green building rating systems - LEED

LEED Credit Categories



Green building rating systems – BREEAM

BREEAM®



BREEAM credit categories & credit points

Healthy building rating system – WELL Building Standard

A COMPREHENSIVE APPROACH TO **WELL**-BEING



AIR



WATER



NOURISHMENT



LIGHT



MOVEMENT



THERMAL COMFORT



SOUND



MATERIALS



MIND



COMMUNITY

Role of Hungarian National Bank

I. Initiatives in the financial sector

Analysis of ecological and financial risks

Greening of financial services, mobilizing additional funds for green investments

Steps related to green bonds

Incentivizing financial institution's greener operations

II. Social and international relations

Enhanced cooperation with domestic partners

Active participation in international work related to climate risks and green finance

Education and capacity building related to green finance

III. Further greening of MNB's own operation

Further decreasing of MNB's own ecological footprint

Acting as a role model in environmental disclosures



Key takeaways

- We see some barriers in the building sector – real-estate investors are not aware of the complicity of the EU Taxonomy.
- Information and building data are mostly not complete, or not reliable – problem by acquisitions
- Huge costs to fulfil the requirements and produce the documentations
- If investments and credits are connected to EU Taxonomy alignment, it can be implemented fast!





Q&A

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