

CLIMATE & ENERGY SNAPSHOT: HUNGARY: THE POLITICAL ECONOMY OF THE LOW-CARBON TRANSITION

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## CLIMATE & ENERGY SNAPSHOT: HUNGARY THE POLITICAL ECONOMY OF THE LOW- CARBON TRANSITION

**SABRINA SCHULZ, ADA AMON, ALEXANDRA GORITZ & JULIAN  
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This Briefing Paper presents an assessment of the political economy of Hungary with regard to the low-carbon transition. This paper is part of a series of briefings on the four Central European states forming the “Visegrád Group”. Often perceived as one unified bloc working against the low-carbon transition, E3G digs deeper and studies their specificities, their influence and their particular social and economical interests, in order to identify opportunities to accelerate the low-carbon transition, domestically, and at the European level.

A global low-carbon transition is underway, but not all countries are actively participating. Engaging as early as possible, however, is crucial to reap benefits of low-carbon development while avoiding economic losses through stranded assets and abrupt economic shifts. In the European Union (EU), the Visegrád Group in particular is often seen to be attempting to slow down the low-carbon transition, both domestically and by opposing stronger EU climate action.

Against this background, E3G has applied its Political Economy Mapping Methodology (PEMM) to the Visegrád states plus Romania and Bulgaria. The process involves extensive desk-based research as well as stakeholder interviews to identify the key factors influencing a country’s position on energy and climate issues. The “Climate & Energy Snapshot” series summarises the main findings into digestible country briefings. All briefings will be published over the course of 2017.

When taking a closer look, it becomes apparent that there are considerable differences and disagreements between the countries. Identifying these discrepancies is crucial for designing country-specific intervention and cooperation opportunities that support a low-carbon transition.



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## EXECUTIVE SUMMARY

Hungary does not perceive itself as a high-carbon economy and therefore sees little necessity to reduce carbon emissions. This perception is correct when comparing Hungary's energy intensity performance to the rest of the Visegrád states: its energy-intensity is the lowest among the four countries with 224 kgoe per €1,000 (2015). Compared to the EU-average of 120.4 kgoe per €1,000,<sup>1</sup> however, Hungary is underperforming. This is mainly due to the poor energy efficiency performance in the residential buildings sector.

Hungary's energy strategy and its decarbonisation plans rely heavily on nuclear power. In 2015, nuclear covered over 60% of electricity generation. Hungary is planning to further increase its reliance on nuclear power with the expansion of the Paks nuclear power plant, thereby strengthening its ties to Russia, which is financing the new plant and supplying all of Hungary's nuclear fuel. The Hungarian government frames nuclear power as a guarantee for energy independence, despite the exclusive reliance on Russia. The Government is expecting energy use to increase in the future and Hungary's nuclear policy is based on this assumption. Nuclear energy is the key low-carbon technology that Hungary is relying on.

Although mitigation measures are not very prominent in the Hungarian public debate, Hungary's population is becoming increasingly aware of climate change as a significant risk to their homes and lives. Hungary is the most climate-vulnerable country of the Visegrád Group. Around 80% of the population state to be feeling the effects of climate change in their daily lives. Especially, heat waves (52% of area at risk) and inland floods (23% of area at risk) are posing a risk to the Hungarian population.<sup>2</sup>

The Hungarian government itself is the largest obstacle to a low-carbon transition. It has put in place serious hurdles for renewables, such as a new regulation that *de facto* prohibits new wind power projects, and a new levy on solar power. Businesses and media are increasingly controlled by people close to the government, and the influence of civil society is being repressed since Orbán came to power in 2010.

The only active actor in favour of a low-carbon transition that can and has already influenced the Hungarian political system is the EU. Hungary develops its energy and climate legislation in accordance to the EU framework (e.g. Renewable Energy Directive and Energy Efficiency Directive) but the implementation lacks both rigour and ambition. The EU also presents an important source of funding for Hungary.

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<sup>1</sup> Eurostat figures

<sup>2</sup> Uzzoli (2016) [Effects of climate Change on Health– A Case Study in Hungary](#)



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Almost 80% of Hungarian public investment between 2011 and 2013 originated from EU funds.

Hungary has comparatively little influence at the EU level, and is usually not engaging constructively on the low-carbon transition. Most of the time, Hungary is aligned with Poland, the strongest and most vocal opponent of stricter EU climate and energy regulation. Although climate and energy issues are not a priority for the Hungarian government, it supports Poland in order to receive backing on other issues, such as migration and rule of law investigations. The partnership weakens the EU's influence on both Member States. Despite challenging many EU policies and initiatives, Hungary was the first EU Member State to ratify the Paris Agreement. This step was attributed to Hungary's president János Áder, who is attempting to promote a debate on the issue.

Overall, progress towards a low-carbon transition is difficult to achieve at the national level in Hungary. The reluctance of the national government to promote the low-carbon transition gives local communities an increasingly important role in promoting sustainable development. However, the financial situation of municipalities in Hungary is problematic, making their engagement in local climate action very difficult without new funding options.



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## POLITICAL ECONOMY MAPPING

The Political Economy Mapping Methodology (PEMM) has three primary layers of analysis: national conditions, the political system and external projection and choice. This facilitates country comparisons as the analytical categories are general enough to be applicable to all countries. A key feature of the PEMM is its graphical representation, which condenses very complex information in an easily digestible diagram (see Annex 1).

The analysis of the national conditions aims to identify underlying tensions across key factors that influence a country's interests regarding the low-carbon transition. The second part examines the political system, especially the power relations between different actors and their alignment with low-carbon development. The interaction between the national conditions and the political system leads to countries making choices on climate and energy policy, which are analysed in a third step. In particular for the purposes of this briefing the analysis of external projection and choice focuses on how a country positions itself at the European level.<sup>3</sup>

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The PEMM presented in this report was informed by a political landscape study drawn up by Energiaklub, alongside extensive desk-based research by E3G. The draft PEMMs was tested with country experts in think tanks, NGOs, businesses and politics in Hungary. The final draft was informed by their comments and challenges. These country briefings represent the results of this process.

## NATIONAL CONDITIONS

The analysis of the national conditions examines six key areas that are important determinants of a country's national interest in regards to energy and climate policy:

- > Energy security
- > Climate vulnerability
- > Public goods
- > High-carbon economy
- > Low-carbon economy
- > Technology and innovation capability

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<sup>3</sup> A more detailed explanation about the Political Economy Mapping Methodology can be found in the Annex.

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For each category, the analysis is guided by three main questions. How important is the area in the real economy of the country? Is the area accelerating or inhibiting a low-carbon transition? And, how mature is the debate within this area in regards to a low-carbon transition?

## High-carbon economy

### Summary assessment:

Hungary's economy does not have a large high-carbon sector, making this area less important for its national interest, but it is nevertheless impeding a low-carbon transition.

### Assessment categories:

Significance to the national interest: **low**

Alignment with low-carbon transition: **opposing**

Maturity of the debate: **high**

The **restructuring of the Hungarian economy in the early 1990s has led to the decline of energy-intensive industries**. Hungary's relative energy intensity (176) is the lowest among the Visegrád Group (average 190), but still a lot higher than the EU average of 120 kgoe per €1000.<sup>4</sup> This is mainly attributed to the lack of investment in energy efficiency measures.

**Energy industries (33%) and transport (28%) are by far the greatest emitters of greenhouse gases** in Hungary.<sup>5</sup> Most of Hungary's CO<sub>2</sub>-emissions therefore come from natural gas and oil, the main fuels in heating and transport. Since these are provided mostly through imports they provide only little employment and value added to the economy. The gas companies are typically foreign-owned, with MOL group being the notable exception where the government owns a 25% share. As a result, the Hungarian high-carbon sector does not wield a lot of political influence.

Unlike Poland and the Czech Republic, **Hungary generates comparably little of its electricity from coal (20%)**.<sup>6</sup> Almost all of its coal-based electricity production comes from the 800 MW Mátra Power Plant, located north-east of Budapest.<sup>7</sup> The lignite

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<sup>4</sup> Relative energy intensity is defined as "energy intensity measured in purchasing power standards (PPS) relative to the EU28. PPS are currency conversion rates that both convert to a common currency and equalise the purchasing power of different currencies. They eliminate the differences in price levels between countries, allowing for meaningful volume comparisons of GDP. They are an optimal unit for benchmarking country performance in a particular year." See European Environment Agency (2016) **Energy intensity**

<sup>5</sup> UNFCCC (2016) **National Inventory Submissions: Hungary**

<sup>6</sup> Levego (2015) **Hungarian Energy Policy (An assessment)**

<sup>7</sup> Levego (2015) **Hungarian Energy Policy (An assessment)**

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supplied to the Mátra power station comes from two nearby open-cast mines. The government decided in 2015 to reopen one of the lignite mines supplying the Mátra plant<sup>8</sup> and also revived plans to build a 500 MW lignite unit.<sup>9</sup> This is a **result of the country's efforts to increase energy independence, as lignite is a domestic fuel**, rather than a reflection of the political power of the lignite industry.

## Low-carbon economy

### Summary assessment:

Hungary's low-carbon economy is divided on a low-carbon transition, as the focus on nuclear power diverts attention from promoting renewable energy and energy efficiency.

### Assessment categories:

Significance to the national interest: **medium**

Alignment with low-carbon transition: **polarised**

Maturity of the debate: **medium**

The **renewables industry in Hungary is small, and none of the consecutive Hungarian governments have been supportive towards these technologies**. Although on paper Hungary had the most advanced regulations in Central Eastern Europe in the early 2000s, including the first feed-in tariff system, investors refrained from committing capital in this sector due to missing supportive policy measures.

Additionally, the **Orbán government has since increased uncertainty by enacting a new regulation** that prohibits the installation of wind turbines within a radius of 12 km around settlements<sup>10</sup> (*de facto* prohibiting new wind projects on the entire country's territory) and introducing a levy on solar panels.<sup>11</sup> This explains the relatively small share of renewables in Hungary's energy mix. They account for only 10% in final energy consumption (of which 75% is based on biomass),<sup>12</sup> and it remains unclear whether Hungary will be able to meet its 2020 renewables target of 14.65% with current regulations in place.

However, **Hungary has significant potential for renewable energy and energy efficiency**: according to a recent study, 2,800 MW of wind and 1,400 MW of solar capacity could be installed by 2030, which along with energy efficiency improvements

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<sup>8</sup> [http://bbj.hu/economy/matrai-eromu-reopens-lignite-mine\\_104458](http://bbj.hu/economy/matrai-eromu-reopens-lignite-mine_104458)

<sup>9</sup> [http://www.sourcewatch.org/index.php/Matra\\_power\\_station](http://www.sourcewatch.org/index.php/Matra_power_station)

<sup>10</sup> Daily News Hungary (2016) **Wind Power Utilisation Made Impossible in Hungary**

<sup>11</sup> Budapest Business Journal (2015) **Hungary levies tax on solar panels**

<sup>12</sup> Eurostat (2016) **Share of energy from renewable sources**

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would make the new Paks nuclear power plant unnecessary.<sup>13</sup> Compared to the rest of Europe, Hungary also has a high potential for geothermal energy, and biomass could be used more efficiently.

Looking at the actual levels of installed capacity – 23 MW for solar, 330 MW for wind and 906 MWth for geothermal energy – **this potential is far from being exhausted**. Similarly, Hungary has a lot of untapped potential in promoting energy efficiency, particularly in the buildings sector that is the biggest energy consumer (40% of total energy demand).<sup>14</sup> After traditionally funnelling EU energy efficiency funds to public buildings,<sup>15</sup> the Hungarian government has recently adopted a new energy efficiency program aimed at households. This is a positive step, although the program is limited in extent and not all energy-poor citizens will have access.

The lack of positive government initiatives on renewable energy is also associated with **plans for two additional nuclear power units** (Paks II). Hungary's Smart Specialisation Strategy (RIS3) entails one priority area on 'clean and renewable energies' that encompasses nuclear as well as 'clean coal'. This indicates that there is no real interest in a low-carbon transition with a focus on renewables and energy efficiency.

The focus on nuclear, however, could support e-mobility in Hungary as electric cars would lead to an increase in electricity demand, which can be provided by nuclear power. At the same time, the **emphasis on nuclear power inhibits a transformation of the power sector** as it cements reliance on a centralised electricity system operating on baseload capacity, rather than the flexible and decentralised system needed to complement the introduction of renewables at scale.

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<sup>13</sup> Energiaklub (2015) **THE WORLD WITHOUT PAKS II Energy Vision of Energiaklub by 2030 using EnergyPLAN software**

<sup>14</sup> EBRD (2016) Hungary strategy; Fülöp O. (2011): **NEGAJOLE2020 – A magyar lakóépületekben rejlő energiahatékonysági potenciál**, Energiaklub, Budapest; Fülöp O. (2013): **Állami oktatási és irodaépületekben rejlő energiahatékonysági potenciál**, Energiaklub, Budapest

<sup>15</sup> CEE Bankwatch Network (2016) **CLIMATE'S ENFANTS TERRIBLES HOW NEW MEMBER STATES' MISGUIDED USE OF EU FUNDS IS HOLDING BACK EUROPE'S CLEAN ENERGY TRANSITION**





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## Technology and innovation capability

### Summary assessment:

Hungary's innovation capability is crucial to its international competitiveness. However, innovation challenges persist especially in the public sector and there is no enabling framework for low-carbon innovation.

### Assessment categories:

Significance to the national interest: **medium**

Alignment with low-carbon transition: **neutral**

Maturity of the debate: **low**

Hungary ranks 33<sup>rd</sup> (out of 128) in the Global Innovation Index (2016) and has improved its performance from 2015. **Among the Visegrád Group, only the Czech Republic ranks higher** in 27<sup>th</sup> place. Within the EU, Hungary's innovation capacity is definitely below average, and in almost all assessed dimensions, from 'Community designs' over 'SMEs product/process innovations' to 'non-EU doctorate students'.<sup>16</sup> **The only dimension in which Hungary performs above EU average is 'exports of medium to high-tech products'**. This presents also a strategic focus in Hungary's Industrial Development Plan (Irianyi Plan).

**Hungary spends less than the EU average on R&D** (1.4% vs. 2.0% of GDP).<sup>17</sup> Its R&D spending increased from 0.6% in 2008 to 1.4% in 2014. However, public R&D spending has decreased over the last ten years. According to the National Research and Development and Innovation Strategy 2020 (RDI strategy), which was adopted in 2013, Hungary aims to increase its R&D intensity to 1.8% of GDP in 2020. Progress towards this target is driven by foreign-owned businesses. Among Hungarian SMEs only 10.6% carry out innovation activities, which is clearly under the EU average of 28.7%.<sup>18</sup>

Hungary defined clean technologies as one focus area of its R&D efforts. **The national Smart Specialisation Strategy (S3) of 2014, for example, puts a priority on 'clean and renewable energies'**. But instead of promoting a real energy system transformation, it maintains unsustainable patterns of energy production with clean coal technologies, innovative nuclear technologies and the utilisation of 'waste energy'.

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<sup>16</sup> European Commission (2016) **European Innovation Scoreboard 2016: Hungary**

<sup>17</sup> Eurostat (2016) **Gross domestic expenditure on R & D by sector, 2014 (% of GDP)**

<sup>18</sup> European Commission (2016) **Research and Innovation in the European Semester Country Report 2016: Hungary**

The main obstacles identified for Hungarian innovation are the **unreliability of public funding and the institutional framework, as well as skills shortages**.<sup>19</sup> As the global economy turns towards a low-carbon development pathway, it will increasingly demand low-carbon goods. Hungary is generally well positioned to supply them if it can address the shortcomings in the public sector.

## Energy security

### Summary assessment:

Improving energy security is a major objective of the Hungarian government. The debate, however, places a strong focus on nuclear power and does not reflect the security benefits of renewables and energy efficiency.

### Assessment categories:

Significance to the national interest: **high**

Alignment with low-carbon transition: **opposing**

Maturity of the debate: **low**

Hungary is **highly dependent on energy imports to meet its energy needs**. Overall, Hungary's net imports account for around 62% of its energy consumption (2014).<sup>20</sup> Energy dependence is especially high for oil (82%) and natural gas (78%)<sup>21</sup>, but also for nuclear fuel, which is often left out of the import dependence calculations. When including nuclear into Hungary's overall energy imports instead of considering it as a domestically produced fuel Hungary's import dependence rises to almost 80%.<sup>22</sup>

For all three energy sources mentioned above, **Hungary is highly dependent on Russia**. It receives 39% of oil, 44% of gas, and 100% of nuclear fuel supplies from Russia, as Paks II, the Hungarian nuclear power station, is being built by Russian Rosatom.<sup>23</sup> Importantly, whereas the country's dependence on oil and natural gas imports is considered as problematic by the current and previous governments, a flawed logic leads the same government to promote nuclear as a mean to improve energy independence.

<sup>19</sup> European Commission (2016) [Research and Innovation in the European Semester Country Report 2016: Hungary](#)

<sup>20</sup> Eurostat (2016) [Simplified energy balances - annual data](#). Import dependency is calculated by dividing net imports (588,500 TJ) by gross inland consumption (953,441 TJ). This results in an import dependency of 61.7%.

<sup>21</sup> IEA (2014) [Energy Supply Security 2014, CHAPTER 4: Emergency response systems of individual IEA countries](#)

<sup>22</sup> Eurostat (2016) [Simplified energy balances - annual data](#). Import dependency is calculated by dividing net imports (588,500 TJ) by gross inland consumption (953,441 TJ). This results in an import dependency of 61.7%. If nuclear heat as primary energy source is included into net imports, import dependency rises to 79.4%.

<sup>23</sup> The Paks NPP operates four Russian-made VVER reactors that require one type of nuclear fuel produced and delivered primarily by TVEL, Rosatom's fuel manufacturing subsidiary; see Kraev (28 June 2016) [Russia's nuclear energy expansion – a geopolitical footprint?](#)

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This argument is used by the Orbán government to justify plans for building two new nuclear power units with a capacity of 2,400 MW. However, this project is backed by a Russian loan of €10 billion, **de facto increasing reliance on Russia and thereby undermining the broader government strategy to increase energy independence.**<sup>24</sup> Total investments amount to €12.5 billion, which is comparable to one fifth of the national budget. This drive towards nuclear is detrimental to the expansion of renewable energy, as it fosters a centralised and inflexible power system and market design that is inadequate for feeding in large amounts of renewable energy.

**Neither the significant potential of renewables nor the massive energy efficiency opportunities in the residential sector are reflected** in the debate around energy security. Exploiting these mostly untapped sources would be an opportunity to the country to increase energy security and foster a low-carbon transition.

## Public goods

### Summary assessment:

The debate about public goods and their relation to climate action is still young, but might help promote a low-carbon transition in Hungary, by emphasising the social co-benefits of climate action.

### Assessment categories:

Significance to the national interest: **low**

Alignment with low-carbon transition: **supportive**

Maturity of the debate: **low**

Although environmental public goods do not feature as part of Hungary's national interest the social co-benefits of a low-carbon transition offer a significant opportunity to increase support for environmental measures.

For Hungarians, **social issues dominate over environmental ones.** When asked about the two most important problems their country faces, Hungarians put health and social security (21%) as well as education (7%) before environmental issues (3%).<sup>25</sup>

Yet, some **social issues are intimately linked with energy and climate concerns.** For example, 40% of Hungarian households suffer from fuel poverty, i.e. they spend more

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<sup>24</sup> Thorpe (12 June 2015) [Hungary challenged on nuclear choice with Russia](#)

<sup>25</sup> European Commission (2014) [Eurobarometer Standard EB 82 Hungary](#)

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than 20% of their income on energy bills.<sup>26</sup> Energy efficiency measures could offer a solution to this issue.

**Air pollution is another environmental and social problem in Hungary**, as 13,740 Hungarians are estimated to have died prematurely of air pollution in 2013. In the whole of the EU this number is at 520,000. Per 10,000 inhabitants the figure is 40% higher in Hungary than in the EU average (10/10,000 vs. 14/10,000).<sup>27</sup> Energy efficiency measures, renewable energy and e-mobility would help decrease air pollution-related deaths.

**Climate change itself is increasingly becoming a concern for the population:** 14% of Hungarians name climate change as the most serious problem facing the world, which is a rise of four percentage points since 2013 and close to the EU average of 15%.<sup>28</sup> Climate change is perceived as a 'very serious' problem by 73% of the population, which is above the EU average of 63% in 2015.

## Climate vulnerability

### Summary assessment:

Among the Visegrád Group, Hungary is the most climate-vulnerable country, which is increasingly perceived as a major threat by the population. Moreover, people are becoming aware of migration as an indirect consequence of climate change.

### Assessment categories:

Significance to the national interest: **medium**

Alignment with low-carbon transition: **supportive**

Maturity of the debate: **low**

Hungary is among the most climate-vulnerable EU countries.<sup>29</sup> The great majority of the Hungarian population (80%) feels **the effects of climate change in their daily lives** and is concerned about climate change. Damages to homes and long-lasting power outages are among the most frequently named worries of Hungarians. Half of the population expects action on this from their municipal governments, and most of them are willing to participate in local climate actions.<sup>30</sup>

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<sup>26</sup> Energiaklub (2012) **Poverty or Fuel Poverty? Defining fuel poverty in Europe and Hungary**

<sup>27</sup> Premature deaths attributable to PM2.5, NO<sub>2</sub> and O<sub>3</sub> exposure, see EEA (2016) **Air quality in Europe: 2016 report**.

<sup>28</sup> European Commission (2015) **Special Eurobarometer 435 Climate Change Hungary**

<sup>29</sup> ND-GAIN (2017) **Country Ranking: Vulnerability**

<sup>30</sup> One-fifth of respondents would get involved regularly, almost half of them occasionally, and 16% only in the case of an emergency, see Energiaklub (2015) **Press release: Seven out of ten Hungarians feel defenseless against the effects of climate change**

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The most important **climate impacts on Hungary include a strong mean temperature rise, inland flooding (23% of area is at risk), and heat waves (52% of area at risk)**,<sup>31</sup> making effective water management key to successful adaptation.<sup>32</sup> Agriculture, as the most vulnerable sector, employs 5% of the national workforce, which is around EU average.<sup>33</sup>

Apart from these direct impacts, the Hungarian population is becoming increasingly aware of indirect climate impacts on their country. Climate-change-induced health issues are a major concern of the population with 47% being worried, and 32% very worried.<sup>34</sup> Moreover, people are becoming aware that the migration crisis is partly an indirect impact of climate change.<sup>35</sup>

In 2008, the **Hungarian Parliament adopted the National Climate Change Strategy (NCCS 2008-2025)** which includes also a chapter on adaptation to climate change. A revised version of the NCCS-2 (2013 – 2025, with an outlook to 2050) was prepared in 2013 but has still not been adopted by the Parliament. The draft puts as much focus on mitigation as on adaptation. The revised strategy will be accompanied by the Climate Change Action Plan, which will also allow an evaluation of progress on implementation. The increasing awareness of Hungary's climate vulnerability in the population could serve as an important entry point for a debate about a low-carbon transition.

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<sup>31</sup> Uzzoli (2016) **Effects of climate Change on Health– A Case Study in Hungary**

<sup>32</sup> Klimavalasz (2016) **Climate change in Hungary**

<sup>33</sup> European Commission (2016) **Statistical Factsheet: Hungary**

<sup>34</sup> Energiaklub (2015) **Press release: Seven out of ten Hungarians feel defenseless against the effects of climate change**

<sup>35</sup> Migrációkutató Intézet (2016) **Közvéleménykutatás-sorozat a migráció társadalmi megítéléséről**



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## POLITICAL SYSTEM

The political system assessment shows how the national conditions are translated within the political system of the country. Key actors within the political system include the government with its various branches, businesses, civil society groups and the European institutions. The analysis highlights the level of influence and the position of each set of actors with regards to a low-carbon transition.

### Basic parameters

Hungary is a representative parliamentary democracy. The Prime Minister (Viktor Orbán) is the head of government while the President (János Áder) as head of state holds a largely ceremonial position. Both the executive and the parliament have legislative authority. The unicameral National Assembly has 199 members and can both initiate and approve legislation proposed by the Prime Minister. Since the last election, the party system is dominated by the Fidesz party (117 seats) which rules in a coalition government with the Christian Democratic People's party (20 seats), who is seen by many people as a Fidesz-controlled satellite party. The main opposition parties are the Hungarian Socialist Party MSZP (29 seats) and the right-wing nationalist Jobbik (24 seats).

### Government and civil service

#### Summary assessment:

The government and the Prime Minister himself are the most powerful actors and they are actively inhibiting a low-carbon transition.

#### Assessment categories:

Significance in the political system: **high**

Alignment with low-carbon transition: **opposing**

The most powerful person in Hungarian politics is the **Prime Minister**. Since 2010, Viktor Orbán has held this position. The president of Hungary is the head of state, but his role is largely ceremonial, similar to Germany and Austria. Since 2012, János Áder has been president of the Republic. Both Orbán and Áder belong to the same party – Fidesz.

Having **limited formal powers as Hungarian President**, Áder, an ambitious career politician, sought to increase his visibility and enhance his international profile. In a time when he, according to rumours, had ambitions for the top job at the UN<sup>36</sup>, Áder

<sup>36</sup> **1 for 7 Billion Campaign**

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picked climate change as a high-profile subject despite not having a track record of an environmentalist.<sup>37</sup> In this context, he held a speech at the COP21 conference and wrote a letter to the heads of state and heads of government of EU member states advocating the quick ratification of the Paris Agreement. Nonetheless, due to his position within the Hungarian political system, words remain his only power and they are unlikely to change the government's stance on climate.

The government is actively hindering the introduction and roll-out of renewables by enacting legislative hurdles to their installation, such as a new levy on solar power and rules constraining installations of wind turbines around settlements. Starting in March 2017, a new electricity grid usage fee for household renewable energy plants over 4kW will add another burden. Moreover, the government keeps energy prices artificially low through state control, which discourages investments in energy efficiency or demand-side management measures to decrease energy consumption.<sup>38</sup>

The **civil service** in Hungary has little power since the government is promoting strong centralisation, and officials are being replaced frequently. Line ministries have little initiative in policy-making, and all the decisions are heavily influenced by the Prime Minister or his office. The set-up of the national ministerial bureaucracy reflects the importance the government places on climate policy. Following the 2010 general elections, the Ministry for Environment and Water was abolished and the Ministry of Rural Development took over its portfolio. A further reshuffle of the ministerial bureaucracy after the 2014 general elections turned the Ministry of Rural Development into the Ministry of Agriculture, which continues to work on dossiers relating to environmental issues.<sup>39</sup>

The **Parliament** has significant power but is divided on the low-carbon transition. On the one hand, it is dominated by a nearly two-third majority of the ruling Fidesz party, which is opposing strong climate action. On the other hand, the biggest opposition parties, such as Jobbik (politically right of Fidesz) and Hungary's Socialist Party (MSZP) do not have a strong position on climate policy, while Hungary's Green Party (LMP) considers climate change to be a serious problem and is in favour of stronger action.

**Local authorities** have little power within the Hungarian political system but are open-minded and supportive of actions towards a low-carbon transition.<sup>40</sup> However, they lack financial capacity since most of them are highly indebted and reliant on national government resources as well as the government-controlled Cohesion Funds.

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<sup>37</sup> Climate Home (2016) [János Áder: Hungary's unlikely climate change leader](#)

<sup>38</sup> CEE Bankwatch Network (2016) [CLIMATE'S ENFANTS TERRIBLES HOW NEW MEMBER STATES' MISGUIDED USE OF EU FUNDS IS HOLDING BACK EUROPE'S CLEAN ENERGY TRANSITION](#)

<sup>39</sup> Eco-Innovation Observatory (2015) [Eco-innovation in Hungary](#)

<sup>40</sup> Energiaklub (2016) [Municipality leaders dedicated to managing the impacts of climate change](#)

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Additionally, they have very little opportunity to generate their own income in the Hungarian system.

## Business

### Summary assessment:

In general, business is neither actively opposing nor supporting a low-carbon transition. However, the business sector is traditionally relatively powerful within the political system. Currently, its influencing capacity strongly depends on a given company's relationship with the government.

### Assessment categories:

Significance in the political system: **medium**

Alignment with low-carbon transition: **neutral**

The most important private sector actors in Hungary are the **automotive industry as well as the oil and gas and electricity companies**. None of them are currently actively involved in climate action. Energy-intensive companies such Hungary's state-owned oil and gas company MOL as well as the tyre industry are already very efficient. As a result, they do not have much to lose from climate policy in the short-term.

A general problem of the business sector is the **regulatory burden for new projects** and constructions, which is relatively high in Hungary. According to data collected by *Doing Business*, dealing with construction permits requires 17 procedures, which takes on average 202 days.<sup>41</sup> This puts Hungary worldwide at rank 69, behind Poland, Bulgaria and Austria, but before the Czech Republic and Slovakia.

However, significant efficiency potential remains in the buildings sector. Creating more efficient buildings through insulation would also create business opportunities for Hungarian industry. This is, however, not reflected in government policy. The **energy efficiency association that lobbied for higher efficiency standards closed down in 2016** due to little government response to their efforts.<sup>42</sup>

The **climate-vulnerable agricultural sector is of little importance in the political system** and is increasingly attracting funds from the EU that are not sufficiently monitored. Critics claim that this lack of monitoring leads to a privatisation of

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<sup>41</sup> The World Bank Group (2016) **Doing Business 2017: Country Profile Hungary**

<sup>42</sup> King (29 July 2016) **János Áder: Hungary's unlikely climate change leader**



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agricultural land to close allies of the Fidesz government.<sup>43</sup> This has a negative impact on the lately flourishing bio-agriculture and low-carbon cultivation systems.

## Public discourse

### Summary assessment:

The public discourse plays only a marginal role within Hungary's political system, and the positions on a low-carbon transition are diverging. Climate change, however, is receiving increasing attention.

### Assessment categories:

Significance in the political system: **low**

Alignment with low-carbon transition: **polarised**

Since the Orbán government regained power in 2010, the democratic space has been shrinking. All channels of communication between the government and **civil society** were eliminated, making it very difficult for climate and energy NGOs to access the political system. Not only is their influence diminishing but the current government perceives civil society organisations, especially the ones supported by foreign sources, as a threat due to their political activism and is planning reforms to further weaken their influence.<sup>44</sup>

The only civil society actors that have regular access to the government are government-sponsored organisations with links to the ruling party. The most important among these is the Fidesz-affiliated think tank **Századvég**. The Prime Minister's office relies heavily on Századvég's input, and most government contracts are awarded to it. NGOs are allowed to participate in public consultation processes (e.g. in Monitoring Committees of EU Funds) but these processes are still formal and NGO proposals are usually not adopted by high-level decision makers. There is an increasing number of "national priority" projects in which public consultation is practically non-existent.

Independent **media** played a role in increasing awareness about the direct and indirect impacts of climate change, including the migration crisis. But very few independent sources of information are left in Hungary since the government or oligarchs close to the government took over most of the media outlets and started imposing strict control on media content. In general, climate change does not receive a lot of coverage by state or private media.

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<sup>43</sup> Levego (2015) **How EU Money has Contributed to the Dismantling of Democracy in Hungary**

<sup>44</sup> Tait (13 January 2017) **Hungary defends planned crackdown on foreign-backed NGOs**

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Despite the lack of media coverage, the **general public** is becoming more aware of climate change. Already ten years ago, 40% of the Hungarians listed climate change as one of the most important national problems and 53% as one of the most important global problems.<sup>45</sup> As mentioned above, in 2015, more than 80% of Hungarians stated to feel climate impacts in their daily lives and to worry about it.<sup>46</sup>

Unlike in Poland and the Czech Republic, **trade unions** are not a significant force in Hungary, not least due to the limited mining activities in the country. Existing trade unions do not position themselves within the climate change debate.

## European Union

### Summary assessment:

The EU is an indirect part of the Hungarian political system and an important driver for the low-carbon transition.

### Assessment categories:

Significance in the political system: **medium**

Alignment with low-carbon transition : **supportive**

Hungary develops its energy and climate legislation in accordance with EU legislation (e.g. Renewable Energy Directive and Energy Efficiency Directive) but **rarely implements more than the bare minimum required by the EU framework**. Based on EU requirements, Hungary published its Renewable Energy Action Plan up to 2020, its National Energy Efficiency Plan, and its National Climate Change Strategy; yet most of these documents reveal that the government does not have a vision to promote low-carbon development or appropriate policy measures to achieve this.

EU funds are a significant source of funding for CEE. Around two thirds of EU Cohesion funds go to CEE countries. This holds especially true for Hungary, which was allocated €21.9 billion throughout six operational programmes for the period 2014-2020.<sup>47</sup> On average, **almost 80% of public investments in Hungary between 2011 and 2013 originated from EU funds**. Among CEE countries, only Slovakia has a higher share. The Hungarian operational programme ‘Environmental and Energy Efficiency’ has a total budget of €3.7 billion, from which €3.2 billion are provided through EU funds (Cohesion Fund and the European Regional Development Fund).<sup>48</sup>

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<sup>45</sup> Visegrad.info (2010) [The issues of carbon dioxide and climate change](#)

<sup>46</sup> Klimavalasz (2015) [Seven out of ten Hungarians feel defenseless against the effects of climate change](#)

<sup>47</sup> European Commission (2014) [Cohesion Policy and Hungary](#)

<sup>48</sup> European Commission (2017) [Environmental and Energy Efficiency OP Hungary](#)

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When it comes to **financing measures for adaptation or investments in energy efficiency the overall picture is rather mixed**. Here, things seem to be improving while Hungary's overall performance remains mediocre. On the one hand, in the 2014-2020 funding period, Hungary increased its investment in renewables and energy efficiency when compared to the 2007-2013 period and ranks among the top investors in energy efficiency and renewables (except wind energy) throughout CEE. On the other hand, Hungary is outpaced by Poland and the Czech Republic when it comes to investment in smart grids and electricity transmission and storage.<sup>49</sup>

**Corruption poses a continuous problem, in particular with regards to the use and management of EU Funds**. In its annual Corruption Perceptions Index (CPI)<sup>50</sup>, Transparency International considers Hungary as a “moderately corrupt country in a global comparison”.<sup>51</sup> In 2014, Hungary's CPI score was at 54, compared to the average EU score of 66. That same year, the **European Anti-Fraud Office (OLAF) carried out 13 investigations of suspected fraud cases in Hungary making it OLAF's second most common target** in Europe after Romania with 36 investigations in 2014.<sup>52</sup>

Recently, the **Orbán government attempted to reallocate EU funding** from non-refundable energy efficiency investments in residential **buildings into the refurbishment of public buildings**. The European Commission objected to this plan, arguing that the re-allocation would not result in the expected and required level of savings described by Hungary's National Action Plan.<sup>53</sup> As this example shows, whether these funds will be used to drive the low-carbon transition forward is uncertain and depends very much on the vigilance of low-carbon and transparency advocacy groups.<sup>54</sup>

In the past, **EU funds have not been monitored appropriately, making it difficult to assess their impacts**. Nevertheless, the discrepancy between national and EU funding illustrates the importance of the EU for a low-carbon transition in Hungary. Yet, EU assistance has to be managed more effectively in order to have transformational impact.

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<sup>49</sup> The money funding stems from European Regional Development, Social and Cohesion Funds, with a national co-financing rate of between 15% and 50% of project costs, see CEE Bankwatch Network (2016) **CLIMATE'S ENFANTS TERRIBLES HOW NEW MEMBER STATES' MISGUIDED USE OF EU FUNDS IS HOLDING BACK EUROPE'S CLEAN ENERGY TRANSITION**

<sup>50</sup> The CPI measures public sector corruption on a scale of 1 to 100, where 0 corresponds to omnipresent corruption and 100 corresponds to an absolute absence of corruption in the public sector.

<sup>51</sup> Transparency International Hungary (2015) **The Corruption Risks of EU Funds in Hungary**

<sup>52</sup> Transparency International Hungary (2015) **The Corruption Risks of EU Funds in Hungary**

<sup>53</sup> Magyar Energiahatékonysági Intézet Nonprofit Közhasznú Kft (2016) **Brüsszel: a kormány nem veheti el a lakosság uniós milliárdjait**

<sup>54</sup> Transparency International Hungary (2015) **The Corruption Risks of EU Funds in Hungary**



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## EXTERNAL PROJECTION AND CHOICE

This final analytical step of the mapping assesses a country's stance on European climate and energy policy as well as its broader EU engagement. The assessment is two dimensional, covering both country engagement and how its engagement is perceived in relation to a low-carbon transition.

### European climate and energy policy

#### Summary assessment:

EU climate and energy policy is not a priority for Hungary but the government uses this area to create alliances on other issues.

#### Assessment categories:

Country engagement: **low**

Alignment with low-carbon transition: **neutral**

Most of the time, **Hungary's position on climate and energy has been strongly dependent on Poland**, the strongest and most vocal opponent of stricter EU climate and energy targets. Hungary engages in an alliance with Poland and the Visegrád Group although this is not always beneficial. Hungary voted together with Poland against the EU ETS Market Stability Reserve (MSR) regardless of the increase in revenues the reform would have created for Hungary.<sup>55</sup>

This indicates that Poland and Hungary are backing each other on different policy issues within the EU. However, more recently, Hungary diverged from Poland and was the first EU member state to ratify the Paris Agreement. This step was attributed to Hungary's president János Áder, who is raising his profile by making climate change one of his priority issues.

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<sup>55</sup> Lewis/Twidale (13 May 2015) [EU diplomats approve proposal to start CO2 market reform in 2019](#)



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## Broader EU engagement

### Summary assessment:

Hungary's engagement is very controversial within the broader EU and its actions are detrimental to an EU-wide low-carbon transition.

### Assessment categories:

Country engagement: **low**

Alignment with low-carbon transition : **opposing**

The **Hungarian government is very critical towards the EU** although the Hungarian public is generally pro-European or at least neutral.<sup>56</sup> Prime Minister Orbán is very vocal about opposing further European integration and any obligations imposed on Hungary by the EU. He supports a 'Europe of Nations', which became especially clear during the refugee crisis in 2015-16, where he strongly opposed the EU quota plans for refugees and held a referendum on this issue in Hungary. This drive against joint decision-making spills over into other areas, making common solutions in the fields of energy and climate more difficult to achieve.

**Overall, Hungary has only a small voice within the EU but its alliance with Poland** adds to the country's attempts to build blocking minorities on key energy and climate issues. This behaviour of trading off climate and energy policy positions for support on other issues makes Hungary an opponent of a low-carbon transition.

The **governments of Poland and Hungary, both of which are moving in a more authoritarian direction, are covering each other vis-à-vis the EU.** This means that sanctions under Article 7 of the Treaty on the European Union, designed to protect the rule of law, cannot therefore be invoked as they require unanimity. This reduces the EU's influence to stop the current crackdown on democratic rights in both countries.

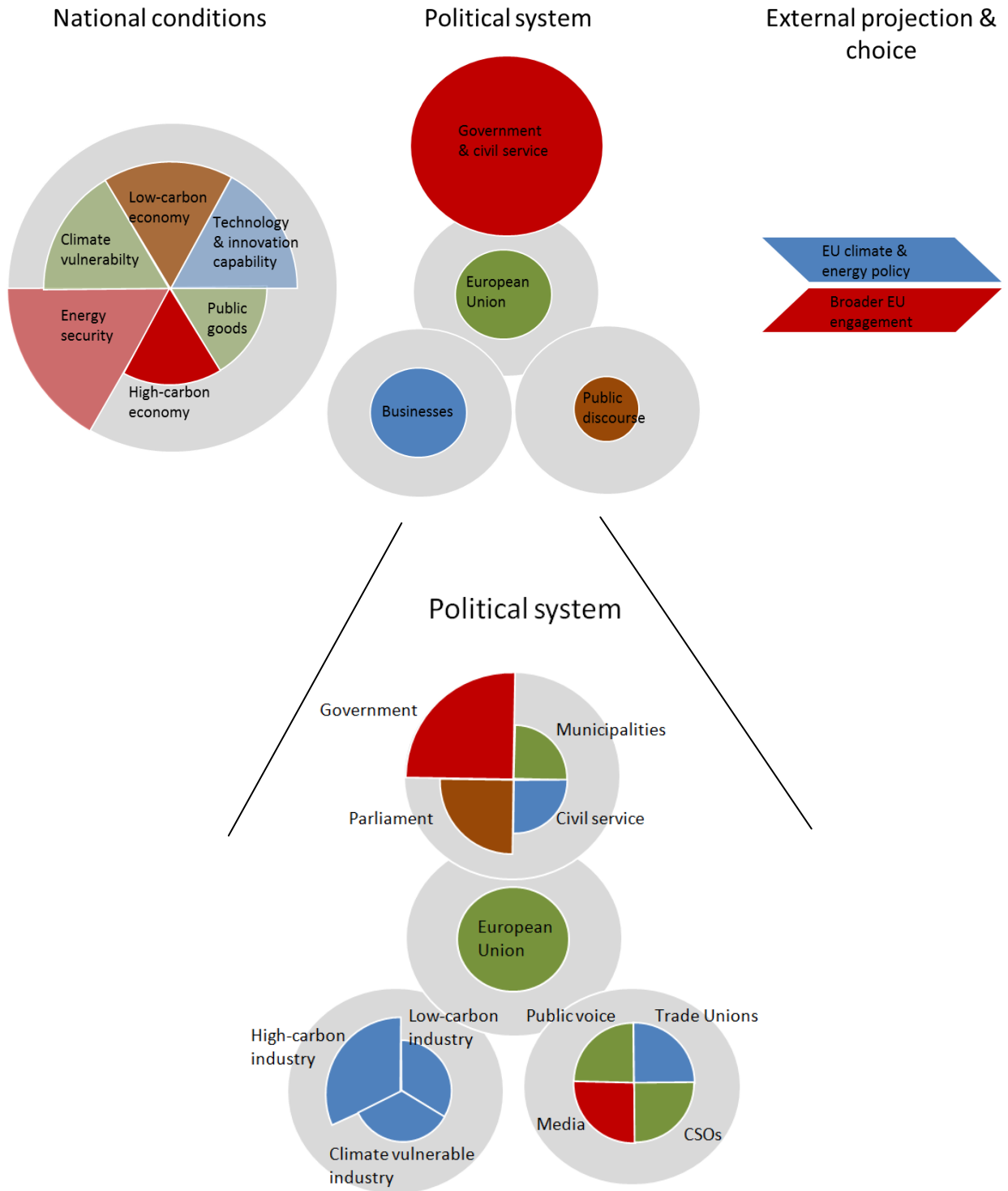
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<sup>56</sup> European Commission (2015) **Standard Eurobarometer 84**



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## Annex 1 – Representation of PEMM results for Hungary



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## Annex 2 – Political Economy Mapping Methodology (PEMM)

The climate diplomacy community sometimes tends to act based on a small sample of information on a country's position, e.g. analyses of political statements and news headlines. These discrete assessments often fail to appreciate and accommodate the critical interplay between the real economy and political dynamics, and have a narrow focus on a limited range of sectors e.g. energy. Failing to address this interplay often leads to a failure to identify where strategic opportunities and barriers to transformational change exist.

For example, the 15<sup>th</sup> Conference of the Parties (COP) in Copenhagen in 2009 was such a missed opportunity. In the aftermath, it was crucial to shift countries into a more progressive international position before the Paris COP in 2015. At the time, E3G used the Political Economy Mapping Methodology (PEMM) to deliver targeted interventions. It was essential to understanding what interventions should be taken to address real economy, national and international political dynamics.

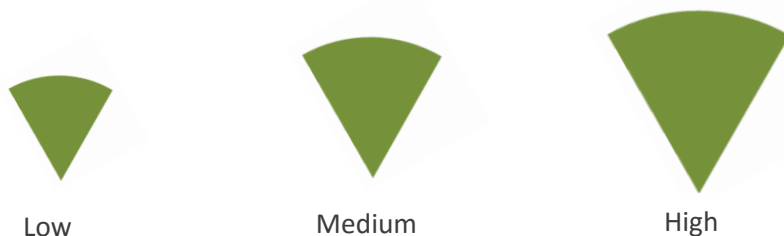
E3G's PEMM summarises abstract information very succinctly and it, crucially, makes countries comparable across a set of defined categories. It combines hard analytical data with informed judgment, drawn from a variety of sources, rather than narrow scientific analysis along a series of fixed indicators. It provides a systematic and consistent approach to determining what constructs a country's core national interest, and identifies key national and international interventions that can increase domestic ambition and enable more proactive and progressive climate diplomacy. The mapping has been used to support ambitious outcomes under the United Nations Framework Convention on Climate Change (UNFCCC), as well as other diplomatic venues, such as EU climate and energy policy.

The PEMM has three primary layers of analysis: national conditions, political system and external projection and choice. The first level aims to understand and identify tensions across the real economy. The second, analyses power relations between different actors and determines how the national interest is translated within the political system. The third, considers international projection to illustrate how a country positions itself in – for the purposes of this briefing, European – debates in general and towards climate and energy issues specifically.

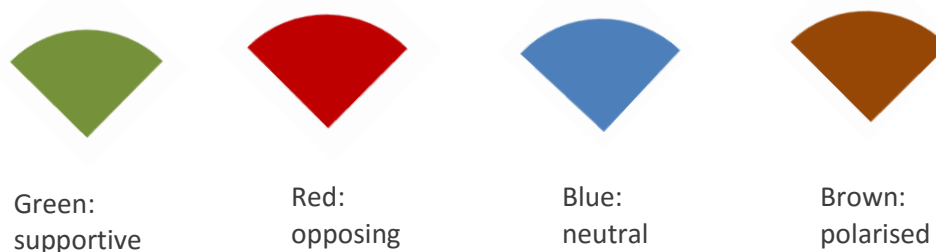
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The PEMM offers a three dimensional assessment:

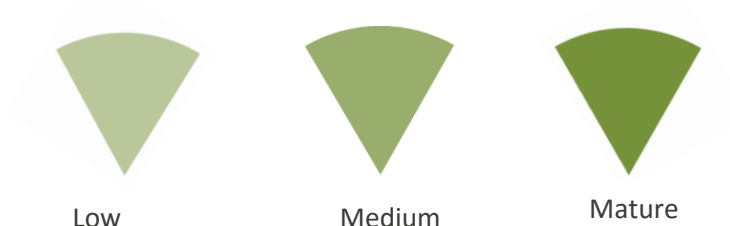
1. The size assesses the significance of the sector/actor:



2. The colour reflects the alignment with low-carbon transition:



3. The transparency of the colour reflects the maturity of the debate:



All three dimensions – significance to national interest, alignment with low carbon objectives, maturity of the debate – are assessed when analysing a country’s national conditions. In the two subsequent parts ‘political system’ and ‘external projection and choice’, a two-dimensional assessment considers significance to national interest and alignment to low-carbon transition.

The PEMMs presented in this report are informed by political landscape studies conducted by partner organisations in each country, alongside extensive desk-based research by E3G. Draft PEMMs were tested with country experts in think tanks, NGOs, businesses and politics. The final draft was informed by their comments and challenges. These country briefings represent the results of this process.





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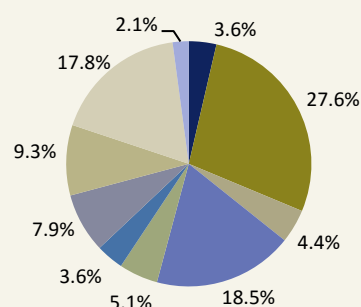
## Annex 3 – Data sheet: Hungary

### General data

Population (2015)	9.8 million
GDP per capita (2015, current prices)	€11,100
Corruption Index (0= highly corrupt, 100= very clean)	48 in 2016, 51 in 2015
Democracy Index (ranking of 167 countries)	56 in 2016, 54 in 2015

### Value added per sector (% of GDP)

- Agriculture, forestry & fisheries
- Industry
- Construction
- Commerce, transport, accomodation & food
- Information and communication
- Financial and insurance activiites
- Real estate
- Professional, scientific & technical services
- Public admin., defence, education, health & social work
- Arts, entertainment & recreation



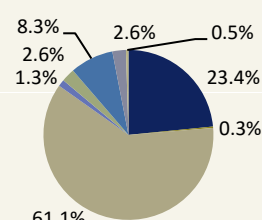
### Allocation and use of EU Funds (2014-2020)

Total allocation of European Structural Investment Funds	€25 billion
Planned investments in energy efficiency	€1.16 billion
Planned investments renewables	€875 million
EU Cohesion Policy Investments as share of public investment (2007-2013)	57%

### Energy statistics

Gross inland energy consumption (2015, ktoe)	24,166
Electricity generation (2015, TWh)	29.37

- Solid fuels
- Petroleum and products
- Nuclear
- Hydro
- Wind
- Biomass
- Solar
- Wastes non-RES



Energy intensity (2015, kgoe/1000€)	224
Energy poverty (inability to keep home adequately warm)	33.9%
Employment in coal sector (2015)	1,655 in lignite mining
Renewable energy capacity of individuals, collectives, public entities and small enterprises (2015)	1,530 MW wind 92 MW solar
Renewable energy potential	99MW wind, 1,400MW solar PV, 1,175MW biomass, 67MW geothermal

**Sources:** Eurostat (2016), TI **Corruption Perception Index** 2016, EIU **Democracy Index** 2016, European Commission (2013, 2014, 2016), **Bankwatch** (2016), BPIE (2015), Euracoal (2017), CE Delft (2016), UNDP (2014)



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## About E3G

E3G is an independent, non-profit European organisation operating in the public interest to accelerate the global transition to sustainable development. E3G builds cross-sectoral coalitions to achieve carefully defined outcomes, chosen for their capacity to leverage change. E3G works closely with like-minded partners in government, politics, business, civil society, science, the media, public interest foundations and elsewhere.

More information is available at [www.e3g.org](http://www.e3g.org)

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