

AKP's national EV project: only an election promise?

*Turkey's history with national technology
development and AKP's 2023 vision*

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Abstract

What happens when nationalism is the drive-force behind technology development in a country? Development of technology in a modern society is usually perceived as physical developments achieved through scientific research, without any affects on society or the culture of a nation. However, it seems this is not the case for Turkey. Since its foundation two major attempts have been made to develop and produce "national technology," but ending in disappointment, the aircraft factories opened in the 1930s and the Revolution car project in 1960. These technology initiatives that later was discarded by the politicians seems to have formed an understanding on how technology development is understood in Turkey. And this understanding seems to have had an important role for how the AKP has promoted its technology initiatives to the people. AKP has constantly based its politics in an utopian future that they call the 2023 goals or "The New Turkey." By promoting technology projects in the light of the past failures from the mentioned technology initiatives and the utopian future they are argue that Turkey will regain its "lost" glory. One of the initiatives in order to achieve this has been their national EV project. The project was first announced in 2011, but has often been "hot" at election times, something that has caused discussion of it being a tool for AKP to gain popular support, namely populism.

This study discusses the implications of nationalist rhetoric on how technology development is perceived in Turkey, through the country's history on technology development and AKP's national EV project. Through the national EV project I discuss how nationalist rhetoric becomes and impetus for technology development in Turkey. I argue that technology development has significant influence on people, but also something leading to it being a tool to be used by politicians to mobilize popular support.

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* I have primarily translated the statements of the politicians, as it didn't exist any official translation.

CHP: Republican People's Party (Cumhuriyet Halk Partisi)

Economic patriotism: New academic field and many definitions, but in this thesis it is used as a term to explain a type of “financial protectionism” and people’s economic “intervention” for the country.

MHP: The Nationalist Movement Party (Milliyetçi Hareket Partisi)

TÜBİTAK - Scientific and Technological Research Council of Turkey (Türkiye Bilimsel ve Teknolojik Araştırma Kurumu: a national agency bound to the Ministry of science, Industry and Technology

TAYSAD: Association of Automotive Parts and Components Manufacturers (Taşıt Araçları Yan Sanayicileri Derneği)

TBMM: The Grand National Assembly of Turkey (*Türkiye Büyük Millet Meclisi*)

TCDD: The State Railways of the Turkish Republic (Türkiye Cumhuriyeti Devlet Demiryolları)

TOMTAS: Airplane and engine Turkish joint-stock company (Tayyare ve motor türk anonim şirketi)

TÜSIAD: Turkish Industry and Business Association (Türk Sanayicileri ve İşadamları Derneği)

1. Introduction

For some countries national technology development means a lot more than just developing and producing a physical product. From its establishment in 1923 and until today, developing national technology, and thus become “technologically independent” has been a central topic in the republic of Turkey. One of the first real debuts in the world of high-tech development for Turkey was in 1927, when Atatürk issued a directive for the establishment of an aircraft factory in Kayseri. Several aircraft factories were built around the country after his initiative, and eventually 200 aircrafts were produced by 1939. (Atam) Government officials shut the aircraft factories down a few years after Atatürk’s death, even though they produced aircrafts and had the support of the people. Atatürk personally believed that science and technology would lead Turkey to a brighter future, thus he strived for the country to establish its own national industry. A similar effort on developing national technology took place in 1961 right after the Marshall aid period. This time the goal was to produce an own national automobile. On 15 May 1961, at the Otomotiv Endüstri Kongresi (Automotive Industry Congress) president Cemal Gürsel issued orders to build a national prototype engine and car. The car was going to be a symbol of Turkey’s industrial power and also show that Turkey could build its own car. At his order the first automobile designed and developed in Turkey was produced in a record time of 130 days, and named "Devrim" (Revolution), at Gürsel's request. (Tarihiolaylar) The Revolution automobile was developed with great hopes, and the engineers working at the project managed to produce three prototypes in the period of 4,5 months. Moreover due to reasons still unknown today this project was also abandoned in the end. The abandonment of these projects seems to have led to big disappointment in a significant part of the Turkish society, as the indicators in chapter 5 argues. There were some minor attempts to develop national technology afterwards, but no major attempt was made and the dream of producing a national car seemed forgotten, until the 2000s.

The debate of the national car blossomed up again, when the AKP government proudly announced the national car project in 2011. In fact, the then Prime Minister and AKP’s official leader Recep Tayyip Erdoğan made several calls to launch a national car project before 2011, arguing that such a project was as an “obligation towards the Turkish society.” (Milliyet, 2011) Erdoğan outlined the project for the first time in the general assembly of TÜSİAD, and the development of a national car has become an essential goal of the AKP governments since then. (Karaoguz, 2016: 98)

While some minor technical and economical details have been the more popular part for media, when the topic has been the national car project, another frequently used rhetoric by the politicians seems to have gone unnoticed. With regards to the national car project's public appeal, which is more important within the context of this thesis, the proponents of the AKP has been defending the project by explicitly emphasizing the national pride and national prestige attached to it. For example a newspaper close to the AKP declared that the first prototype of the car was "totally Turkish made," despite the fact that it was not "national" in the sense that all parts weren't produced in Turkey. (Karaoguz, 2016: 100) In the eyes of AKP, the national car project is seen as a step taken in the right direction towards the creation of "the New Turkey" in the new millennium, and to reach the 2023 visions. ("The New Turkey" and "2023 visions" are explained later in chapter 5 and 6.) In fact many other national technology projects have been promoted by the AKP governments since 2002 within the same context, such as those in the construction sector and the military including: the national ship project, Marmaray Railway Engineering Project, first high-speed train project, the world's first three-level tunnel that is to be built under the Bosphorus, and the national tank project etc. How should we understand the "nationalistic glorification" of the technological projects the AKP government has been pursuing? What are the effects (or consequences) of the use of this rhetoric? Furthermore, what does the AKP government aim to achieve, by promoting these projects this way? To some this is just an example of "a political construct emanating from circumstances constituted by power relations, industrial-oriented development, and technological imagination and all hinging on the rhetoric of nationalism." (Amir, 2007) Considering the literature on technological nationalism, this paper examines how nationalism becomes an impetus for technological development. The case chosen in this context is the national car (later EV) project outlined by the AKP, in the light of the party's 2023 vision.

1.2 Research question

The aim of this study is to explore in which ways nationalist rhetoric effects and shapes technological development in Turkey. Using AKP's national car/EV project as its focus and also scoping into some examples from Turkey's history with national technology development, this paper considers the ways in which nationalism becomes an impetus for technology development. The thesis argues that nationalist rhetoric is a powerful tool when used in the right context by the politicians, to gain popular support from the people for their political endeavours. In the context of Turkey, and the country's history with national technology development, the thesis furthermore argues that national technology development

has a special place for the majority of the people, related to the disappointments from earlier technological initiatives (see indicators chapter 5). The aim is to demonstrate how technological nationalism has worked in the Turkish context, and how this has been part of AKP's plan to transform Turkey into their utopian future, namely "the New Turkey"/2023 vision.

While the focus in this thesis will be on the case explained above, I also want to discuss the AKP government's possibility of producing a competitive national EV in today's car market, (difficulties) and its environmental and economical implications for Turkey. After discussing AKP's rhetoric on the development of national technology, it is desirable to see how politicians use the power they get from using nationalist rhetoric. The aim of the thesis is also to contribute to the literature on technological nationalism and argue that it is a form of ideology that has different functions in society. Based on all these assumptions, the research question is as follows: Why does the AKP promote the national EV project and other national technology projects through nationalist rhetoric, what does this mean for Turkey, and what are the consequences? Turkey's history with technological development, and AKP's 2023 vision/New Turkey rhetoric.

2. Theoretical framework

This section will describe the theoretical perspective that will form the basis for further analysis. The thesis uses a theoretical framework derived from the theory of technological nationalism. This theoretical approach is used to analyse and explain the rhetoric about how national technology development is being discussed by the AKP and other groups in Turkey. The thesis will further look into the discourse within the national EV project is being discussed.

2.1 Technological nationalism

Technological development is sometimes seen as one of the primary factors that can create lasting change of social practice in society. Technological nationalism is a modified version of this concept that explains in which ways technology affects the society and culture of a nation, by essentially focusing on the "nationalistic part". The concept of technological nationalism is used in various contexts and there are various definitions of the concept, whom all briefly underlines that (i) technology is an essential factor in promoting economic growth and development; (ii) technology development is a necessary tool in the achievement of

global power: (iii) and dependence on foreign technology poses dangers for national goals. (Kennedy 2013, 911), The name actually originates from the term “techno-nationalism”, coined by Robert Reich in 1987 (Kennedy 2013, 911). Techno-nationalism is primarily associated with protectionist policies, where the emphasis is on the competition among nation-states as the result of scientific and technological development. (Martin, 1994: 2) While in contrast to techno-nationalism, techno globalism (also a term coined by Reich) is more concerned with global issues and not the particular interests of a nation state. For techno-globalists, the world faces urgent common problems that must come before those of the nation-states. (Martin, 1994: 3) The scholarship on techno-nationalism and techno-globalism is commonly derived from policy choices. More importantly a “state-tool” understanding of nationalism seems to have dominated discussions on techno-nationalism and techno-globalism, where the state pursues a national agenda, irrespective of the society it belongs to. This also excludes an understanding on the social and political implications connected to technological nationalism, and gives only room for economic or political-economic discussions of the topic. Thus these two terms will not be the focal point of this study; I will instead in this paper focus on the “ideological” understanding of technological nationalism.

In contrast to the “state-tool” and “economic” understanding of techno-nationalism, Amir (2007) places a great deal of importance on the “national” content of technological nationalism, where the emphasis is put on the use of nationalist rhetoric by state elites to promote a nationalist project. The definition of Amir (2007) originates from communication theorist Maurice Charland’s work on technological nationalism in relation to the construction of the Canadian Pacific Railway (CPR). He was the first to use the concept of technological nationalism in the context of nationalist rhetoric and technological development. (Charland, 1986) Compared to Maurice Charland, Amir puts more emphasis on the ideological character of technological nationalism thus covering other sides of the concept, and his example of the aviation history of Indonesia can be compared to Turkey’s national car projects.

Amir first borrows Paul Ricouer’s (1986) framework of ideology, to later highlight three ideological characters of technological nationalism. To Ricouer ideology embodies three functions: integration, legitimation, and distortion. (Amir, 2007: 283) The first of the three functions is integration, which is the unifying function of ideology, “whereby ideology works as a symbolic system that provides a network of templates through which a society identifies itself” (Amir, 2007: 284). Distortion, on the other hand, refers to the exclusionary trait of

ideology. Essentially, distortion “results from (ideology’s) tendency to limit other choice’s by suppressing alternatives while at the same time overemphasizing specific choices as inevitable and natural” (ibid.). A tension exists between these two functions, while the former is neutral and inclusionary; the other one is political and exclusionary. The tension is stabilized by the legitimation function of ideology. Legitimation is a function that “bridges the neutral concept of integration and political concept of distortion,” Ricouer furthermore argues that ideology “legitimizes the authority of the governing through the consent and cooperation of the governed” (ibid.).

Based on Ricouer’s framework of ideology above, Amir highlights three ideological characters of technological nationalism, which he later uses to scope into the aviation history of Indonesia.

1.) Technological nationalism functions as a unifying medium that unites culturally and socially diverse people from a society in a nationalist sentiment, through the glorification of technological artefacts and the use of national symbols.

2.) Technological nationalism dissolves boundaries between people that share identical nationalistic feelings. “In this light technology is seen not merely as a physical object but is constituted by collective symbolism through which social and cultural materials such as language, histories, myths and utopias are blended together.” (Amir, 2007: 284) Based on this discourse, technology becomes a tool to realise the imagined community, for the example of Turkey and AKP this is the New Turkey/2023 rhetoric.

3.) Amir states that, “technological nationalism is a rhetorical strategy to gain political power through discursive registers in which technological projects are associated with the “people.” (Amir, 2007: 284) And as a rhetoric strategy technological nationalism encourages people to fully trust technological elites, thus giving politicians immense political power to pursue their interests. Amir further states that technological nationalism evokes a feeling of national pride, an imagination of national success in the future and hinges on the discursive register related to nationalism, but yet at the same time hinders people from being critical to the choices and actions taken by state officials. Amir (2007) concludes with “it is through these multiple effects that technological nationalism performs its distortion function.” (Ibid) This means that when technological elites puts much emphasis on a nationalist projects they’re pursuing, they also are at the same time limiting other choices by suppressing alternatives while overemphasizing their technology projects.

These three ideological characters that Amir outlines will be used in this thesis to primarily analyse Turkey's history with technology development with the emphasis being put on AKP's national car project and other technology projects in their period. I present historical narratives of national technology development in Turkey and examine within those narratives the intertwined presence of the three ideological characteristics of technological nationalism outlined above. This pattern of behaviour of state elites and the effect on the general population has only been studied thoroughly in Canada and Indonesia. A general conclusion is that technology becomes only more than a physical product when it is seen through the eyes of a nationalist ideology. Technological risks taken by state elites become more legitimized when it's presented as national pride, linked to national symbols of the past and the imagination of the national success in the future. And this study extends techno-nationalist theory to yet another case. The other definitions of technological nationalism (or techno-nationalism), which were briefly introduced in this section doesn't give room for an analysis that covers the social and political implications of using nationalism to promote and legitimize technological projects pursued by the government, through the use of nationalist rhetoric. The definition that Amir presents is therefore more relevant to be used in this thesis.

3. Methodology-working with sources

This part explains in which way my research is built upon the different sources used in the thesis. The topic of this thesis does not entirely fit into the discipline of history, Middle East studies, political science, Turkish studies or technology studies, but is found somewhere in-between, and perspectives from these disciplines have inspired my research.

In this thesis I conduct a historical and political analysis of AKP's national car project Turkey, by observing its discourse and examining Turkey's history with technology development. I argue that technology development is mainly perceived through the lenses of nationalism in Turkey, and therefore nationalist rhetoric is a powerful tool used by politicians. A great variety of sources are used in this thesis as primary and secondary sources, including: documentaries, speeches, newspaper articles, columns, statements, interviews, opinion polls (surveys), comments (below videos and newspaper articles), research papers, statistics, political party documents, institutional and organisational reports, blogs, social media, online videos, and parliamentary records. AKP's national EV project is further analysed within a historical and political context: Turkey's history with technology development and AKP's 2023 goals.

Firstly, the national EV project is put into a historical context by examining the major national technology projects in the past. I argue that this is necessary, because it provides a historical background for the national EV project, and an understanding of how technology development is perceived in Turkey. The main historical sources used in the thesis are: academic articles and reports such as that from Atatürk Research Center on the first aircraft factories; biographies, and documentaries on the Revolution cars project and the 1960 coup. These sources have been cross-checked against each other in order to increase the validity of my findings. A challenge has been that some of the historical sources originate from state-controlled channels, thus the information available could be selectively chosen to portray a specific understanding. On the other hand, I have also used other sources such as history-blogs and newspaper articles as supplements, next to the mentioned main sources. Evaluating this type of sources in the thesis is difficult, as a blog or a newspaper article written about a historical event can often be based on the author's understanding of the subject, and may be very biased. However, these sources have been used mainly to show that there are different narratives and claims about these historical events. I have focused on the framing of events, rather than the actual unfolding of historical processes.

Secondly, the national EV project is analysed within AKP's 2023 goals and the nationalist rhetoric they have used to promote these goals. This analysis is largely based on AKP politicians' statements regarding the national EV project and other technology projects. This gives an understanding of how they use these projects in a political context, such as the 2023 goals. Research papers, academic articles, statistics and organisational reports, on the other hand, have informed the technical, economic and environmental discussion of the EV project. Different indicators have been used to further understand how people perceive technology development and the national EV project. Indicators include: opinion polls regarding what people think about the idea of developing a national EV. These quantitative figures have been supplemented by anecdotal qualitative information from Turkish-language comments under widely-shared online and news related to the EV project and the other technology projects in the 1930s and 1960s.

3.1 Challenges on working with sources

The acquisition of the data was relatively unproblematic, since I have relied primarily on sources available via the Internet. The majority of my sources are in Turkish, so this research could not have been done without high proficiency in Turkish. For me, the biggest challenge has been to organize and systematize all these data into a comprehensive framework so that it

makes sense. Since this topic is very new, there is very little academic literature specifically related to the subject. This has made it even more challenging to design a research thesis and make sense of the myriads of sources I had available. Since this is a study that deals with something very novel, it had to be built from scratch, which required a prior knowledge of the political landscape in Turkey (from the 1960s until today).

4. History of technological development and the national car

4.1 From producer, to consumer: Turkey's history with high-tech development

While the main focus of this thesis will be on the AKP, and their national car project this analysis will probably be inadequate without mentioning where the importance put on developing national technology originates from in Turkey. As this thesis argues, a majority of the Turkish people closely links national success with developing national technology. (In this thesis “national technology” is used as a term to describe technology developed and designed by people in Turkey, and which has a connection to the country's industry). While it could be several reasons for why technology development is so heavily linked to the nation's success, this thesis underlines that this has something to do with the country's first major high-tech development initiatives conducted between 1920s and 1960s.

One of the first national high-tech development initiatives in Turkey was brought to life by no one other than the founder of the country, Mustafa Kemal Atatürk. During his time as the president, Atatürk always attached great importance to science and technology through his speeches and policies, and emphasized that states that did not establish their own industry, develop their own technology and produce their own products could never stand forever. (Atam- Atatürk research center) Atatürk's policies and speeches have always been in great importance for a majority of the Turkish people. As the founder of the country named “the father of the Turk's” the goals he set has still great influence in the country today. So a big reason for why technological development is linked with national success in the future in Turkey, could be because Atatürk stated this several times throughout his time as president. He integrated the people under a national sentiment; based on the bright future that Turkey would achieve by producing its own High-tech products and establish its own industry. Mustafa Kemal Atatürk and his cadre believed that the West was renewing itself rapidly, and one of the most important indicators for, was the symbolic factory with smoke coming out of its pipes. (Atam) As Atatürk stated: “We have to develop and improve our industry. If we

continue to be satisfied with the industry, we will have to pay tribute to the foreign countries in terms of industrial products in the future." (Atam) Thus in this context, Turkey's first real debut in the world of high-tech development was in 1926, when Atatürk gave directive for the establishment of an aircraft factory in Kayseri. Atatürk was opposed to the purchase of the old and out-dated technological products that were regarded as garbage (by developed countries), and the airplane being a very important vessel in terms of transportation and defence in a country, he wanted Turkey to build its own airplanes. The airplane factory TOMTAŞ was established with great hopes in Kayseri on 1927, with the collaboration of the German aviation corporation Junkers. Although the Turkish government funded the idea of producing national airplanes, the factory didn't do well, and was bankrupted in 1928 because of several reasons. (Atam)

The factory eventually reopened again in 1931 as "Kayseri Tayyare Factory" this time in cooperation with the US government, and about 200 aircrafts were produced in the end. Most of the planes were used by the Turkish military. The factories experienced varied success, but Turkey were developing and producing national airplanes after all. The production of airplanes would eventually stop however, by the choice of the then Turkish governments. Since it was perceived as cheaper to import than produce planes, the politicians instead decided to import and buy them from the US. This was a big mistake according to some historians, as Turkey was at that period on its way to become an aviation giant in terms of producing and exporting its own national airplanes. (Canmehmet, 2015) Vecihi Hürkuş, a prominent figure in the Turkish aviation history even argued that if this factory had operated in World War II, Turkey would have earned huge sums as an aircraft producer. (Canmehmet, 2015) why did Turkey really abandon its first real initiative in the high-tech development sector? Historians conclude that there were several reasons for why Turkey decided to abandon the path of producing their own airplanes and technology, after Atatürk's death in 1938. All of them seem to be linked to the US becoming a world power after the Second World War, and dominating every aspect of commerce and technology in the world, by selling and exporting their products under the Marshall aid agreement. One of the biggest blows to the goal of producing national Turkish airplanes was in 1944, when president İsmet İnönü closed Nuri Demirağ's aircraft factory, and his pilot school. Demirağ was one of the main figures when it came to developing and producing airplanes in Turkey, between 1940-1950. He invested huge amounts of money to develop airplanes, and his planes were even ordered from European countries. Since he was a businessman, he had financial power to

make these investments. Demirağ was eventually banished from airplane production by the government, after one of his planes crashed. (Demir, 2010)

The closing of the aircraft factories started at İsmet İnönü's period, the then president and official leader of CHP. All civilian and military undertakings were transferred to the machinery chemistry institution, in 15 March 1950 by the ratification of Law No. 5591. With this law, the institutions that were actually intended to design aircrafts were turned into places that now served causes out of their purpose. Also within the framework of the Truman doctrine and Marshall aids (taken in 3 parts, 1947-48, 1948-49, 1949-50), which was accepted in the period of İsmet İnönü in 1947, the Turkish defence industry was now heavily depending on the US. (Demir, 2010)

The "US trend" continued and increased heavily with Adnan Menderes's government, when he came to power during the period of the third part of the Marshall aids. In this period Turkey went further into the influence of export technology by importing more from the US, and closing factories that were opened in the first era of the republic. An example was the military factories and eventually the airplane factories that were later turned into textile machinery factories. (Donanimhaber, 2016)

The story of the aircraft factories, the "US trend" that came with the Marshall aid and the abandonment of the path on developing national high-tech later paved way for the rhetoric that was going to form the discourse of the first national car project. The US didn't just become involved in the aviation sector in Turkey, but gradually became involved in every part of Turkish economic and technological life, by selling and exporting goods under the period of the Marshall aid. (Revolution cars documentary) (Yenicag, 2013) The abandonment of developing own national technology, and using the one US had produced was heavily linked to the Marshall aid, that Turkey started receiving after the Second World War. To avoid Turkey from siding with the Soviet Union, the US decided to send a part of the Marshall aid to Turkey. Thus Turkey became a member of NATO, and one of US's most important ally in the region. Turkey saw a drastic change culturally and economically after the politicians abandoned the aircraft production. It was perceived as easier to import and consume, than producing own technological products, which was seen as costly to produce. (Çarıkçı), (Revolution cars documentary) However, this was about to change. Turkey would soon take a big leap in the technology development with the national car project. The latter began in 1961 when the country as a nation was experiencing difficult times. The car project came right after

the military coup in 1960, this was a coup that took many lives and ended with the democratically elected Turkish Prime Minister Adnan Menderes being hanged together with other DP politicians by the coup makers. (Tarihtebugun)

4.2 The environment in Turkey before the national car project

The Turkish nation experienced drastic changes in the 1960's, especially in the political landscape. In 1960, the military seized the power through a military coup d'état. Three top state officials from the previous government including previous Prime Minister Adnan Menderes were hanged. A new government was formed with Cemal Gürsel as the president. Nicknamed "Agha" (master) Gürsel was born in 13 October 1895, he was a Turkish army officer (later general). (T.C.C.B, Gürsel) Gürsel himself didn't participate in the coup he had in fact resigned from his position in the army just before the coup happened. Before his resignation he urged the military to not take any action against the democratic elected government. A farewell letter by him, advocating and urging the army to stay out of politics, was forwarded to all units of the armed forces at the time of his departure on leave. Cemal Gürsel's statement read: "Always hold high the honour of the army and the uniform you wear. Protect yourselves from the current ambitious and harmful political atmosphere in the country. Stay away from the politics at all cost. This is of utmost importance to your honour, the army's might and the future of the country." (Revolvy) The coup eventually happened and was carried out by officers lower ranked than him. In the search for a general that could lead the country afterwards, the coup makers selected Gürsel as president of Turkey, because of his popularity among the people and his well-known leadership among the army. Turkey had experienced some economical challenges before the coup, furthermore critics and the main opposition party CHP was claiming that under the rule of DP (Democratic Party), Turkey had become to "import dependent". According to the critics, the country couldn't even produce "a needle" anymore, because everything was being imported from other countries (Revolution cars documentary). This had in fact become a big topic in the country at that period. One of the most criticized areas in this context was the development of technological products. The Marshall Aid made technological products more available, but also convinced politicians to not fund national technology projects anymore, also mentioned earlier in thesis. Technological products as the automobile, planes and so on were mainly being imported from the US, or their models were being assembled in Turkey. In fact the Turkish automotive industry has a history that can be traced back to the 1950s producing American cars, 10 years before the national car project. The first national car project came to life in this environment,

and was a product of a reaction by the new government against the feeling of not being able to develop “national” industry and technology anymore, a reaction towards the dominance of the external dependence. The national car project was first brought up in media, when president Gürsel reacted to the National Engineers Board statements regarding Turkey’s capacity to produce a national car. When asked about the possibility to produce a national car the Board chairman stated to the newspapers that the country didn’t have the capacity to produce its own car. When asked about these statements by the journalists: “Sir, cannot Turkey produce its own automobile” president Gürsel said, “What do they mean? The Turkish nation can of course produce its own automobiles!” (Revolution cars documentary) Thus the project of producing a national car was about to begin.

4.3 Revolution cars

It’s 1961 May 15, business executives, journalists, bureaucrats and President Cemal Gürsel are discussing the development of the country at the opening of the Automotive Industry Congress. The topic comes to the possibility of producing national car. While the majority at the congress believes that it is completely impossible to produce an automobile, (Revolution cars documentary) Gürsel wilfully insist that the production of a national car is possible. In his inaugural speech Gürsel says:

“When it comes to the automotive industry; a modern country must produce its own transportation vehicles. In today’s world transportation vehicles occupy an important place in the economy. We must produce our own transportation vehicles, we must transport with our own vehicles. First, we have to build some of the parts; then, with improvement, we must build up to 70-80% of them. Some people say that it’s impossible to produce automobiles in Turkey. This thought is the product of dark minds.” (Sagin) (Cars of the revolution, 2008, movie)

Furious from the claims at the congress, and the debate in the media about the impossibility of producing an own automobile, Gürsel decided to take action regarding the matter. After the congress he wrote a top secret stamped letter to the Ministry of transport, on May 22 1961. (Sagin)

"Due to the fact that the technical possibilities of our State Railways are available and perfect, it is necessary to establish the automobile manufacturing industry which will occupy an important place in the national economy, the time is limited and the automobile to be built must be finished until the ceremonies of October 29 National Republic Day. Following the

construction of a passenger automobile engine unique to our country and a domestic automobile model example, and by comparing it with the best automobile models in other countries thus determining its mistakes, this automobile has to be developed urgently" (Sagin, translation of the original letter)

Thus began the story of the first national car project in Turkey. It was only the Turkish State Railways (TCDD) that had the capacity and substructure to develop such a project in the sixties; accordingly they were given the task of conducting this project. (Sagin) In 1961, 22 Turkish engineers and one architect were invited to the Ministry of Transport to attend to a meeting on June 16 to "consult a crucial issue". (Sagin) On June 16 1961, TCDD vice General Manager Emin Bozoglu who lead the meeting that day, read the "top secret" stamped letter from President Cemal Gürsel to the engineers that were present at the meeting, at the Ministry. The letter contained Gürsel's message to the engineers where he wanted them to build a national car: "I want you to produce a car that is completely national both in design and material, to be presented to our people for their sight and appreciation, on the Republic Day ceremonies this year." It was also stated in the letter that this duty is given to the TCDD Administration and for this purpose, 1.400.000. -TL was allocated for the production of the national car. (Sagin) The 22 engineers at that meeting accepted to build a national car and engine, but it seemed to be a problem. (The revolution cars documentary) Beside all the other difficulties and challenges they had when it came to designing and producing a car from its smallest to biggest parts, without any prior experience on car production, the engineers had to finish the car within 129 days, which furthermore meant that they only had 4.5 months to produce a car prototype.

An old train factory in Eskişehir was chosen as workplace for the production of the automobile, and the engineers were requested to be there on June 19, those with automobiles was explicitly asked to bring theirs, because they would give an idea and be the prototypes for production of the national car. The work began right away, and the work groups were identified: design, engine-transmission, body, suspension and brake, electrical equipment, suppliers and people working with accounting. (Revolution cars documentary) In the meantime, everyone in the whole country from the universities to the press, industrialists and politicians believed that neither the automobile nor the engine could be built; it would just be like the airplane factories. (Sagin). Initial work began with the outline of the car. The engine had to be 4-stroke and 4-cylinder, with 50-60 horsepower, and the car's design had to be made by the architect present in the project. The directive was clear, the parts of the car had to

be made in Turkey. Thus by examining the parts used in other cars such as: Jeep, Warsaw, Chevrolet, Ford and Fiat, and from the ideas of the engineers the parts that were going to be used in the car was manufactured by hand, one by one. (Sagin)

The task that seemed impossible was finally over, and all three vehicles were completed in the evening of October 28th. The cars were given the names "Revolution 1", "Revolution 2" and "Revolution 3". One engineer suggested that one of the vehicles should be black, thinking that the president may want an alternative colour. (Sagin) Thus, while the two cars remained in the cream colour, the third one was painted in black. The engineers were preparing and making the final preparations to the Ceremony on 29th October, in Ankara, unknowingly about the fate that were awaiting them. The cars were to be transported in a train from Eskisehir to Ankara, to be demonstrated at the ceremonies in Ankara. They were emptied from gasoline, because of the security rules of carrying transport in the trains. Only a few litres of gasoline were put into the tanks to provide manoeuvrability. The actual refill would be done after they were transported to Ankara, but was later forgotten that morning. (Revolution cars documentary, Sagin.) Some gas was hastily some put in the first car. President Gürsel had came in front of the parliament, while the black car was being refuelled, thus making the engineers stop fuelling on gasoline in the car. Gürsel sat inside the black car that was without gas, and asked the driver to drive him to Anıtkabir, (Atatürk's burial place,) but the car stopped just after driving 100 meters. Curious about why the car stopped Gürsel asked the driver what was going on, which the driver answered, "Pasham, the car ran out of gas." After apologizing, the president was asked to change to one of the other cars that had gas, which he did. After stepping out of the car that he had been driven with, Cemal Gürsel said the famous words that was seen as the end of the national car project, the day it was actually born: "We make automobiles with western mind, but forget to put gas in it because we think like orient". Even though this was a minor mistake that didn't seem to be a problem for further mass-production of the car, this event made the cars being mocked and heavily criticized by a part of the media and other state officials, and thus put a shadow over the success of the group that had worked day and night to produce the cars. The national car project was soon abandoned and discarded by president Gürsel and the government.

4.3.2 Why was the project discarded, even though the cars were produced?

It is still unclear to the present day why the national car project was ended so abruptly. The cars were produced in a record time of 130 days, they were working and it was possible to drive around in them, and is still today (the only existing prototype is still driveable).

Politicians that supported the project stated that these cars would open the way for further national technology to be produced in Turkey, as the success of this project would show that this country could also build its own car, and produce its own technology product. (Sagin) There are different claims and theories about why the government decided to discard the project. The most “official” theory has been that Revolution cars were never mass-produced because of two reasons. 1. The cars were “assembled” prototypes and the production process was not well documented, with almost no technical drawings remaining or existing from the production phase. 2. There wasn’t high enough demand for the cars, so it was perceived as not economical to mass-produce the prototypes, as they wouldn’t sell. (Schleifer, 2012) One of the other theories is based on a “US narrative”. The US was the country that exported majority of the cars to Turkey after the Marshall Aid, according to some US diplomats and investors that were selling and assembling the US imported cars in Turkey put pressure on the politicians to end the project. In this context the politicians and bureaucrats whom had close links to these investors were seen as the group who explicitly worked against the national car. The argument here is that it was this group that would lose financially if the Revolution cars were to replace the imported cars. A possible production of the national Revolution cars would have meant drop on sales for the US imported ones. This group was also supposedly the reason why the project was getting negative media coverage. The following day after gasoline incident, majority of the newspapers wrote that the car car was full with faults, and that the state’s money had been wasted on nothing. (Sagin, Revolution cars documentary) One of the engineers that had worked on the project said also similar things, on an interview in one of the documentary about the Revolution cars, on 1997:

“At that time there were talks about big investments in the Automotive Industry. Especially the investments of American automobile companies in Turkey were increasing steadily. When the Revolution car project started, the risk of these investments not being realized came to the surface. So we think that the reason that the Revolution car project was prevented, was because many of these companies investments in Turkey were now in danger because of the success of this project.” (Revolution cars documentary, 11:36)

Another theory regarding the government discarding the Revolution car project gives a whole other perspective on the topic. Cemal Gürsel and his government was the product of a coup, and thus the people did not democratically elect them. Thus in the eyes of those who had voted for the former DP government (and also other people) it wasn’t legitimate government, as it wasn’t democratically elected. Furthermore Gürsel and his cadre’s capacity to take the

country forward was being questioned. Gürsel and the government had to do something about this. The discussion about if Turkey could produce its own car, came just at the right time. Gürsel gave the order for the production of the car and funded the project, to show that his government could make way for developing national technology, for the future of the country, and that Turkey could master western automobile technology, and thus become technological independent. He thought that the success of this project would also give increased support to him, and his government. However, when he saw the difficulties and economical burdens that came with cars, he gave it up. So according to this theory (Özen), this was a project he used for political concerns, from the very beginning. When looked at it this theory in the context of technological nationalism, Gürsel used nationalist rhetoric to legitimize his technological endeavour that was seen as impossible to conduct at that time. There are some arguments that people whom criticize Gürsel and the government rely on. The fact that the engineers were only given 129 days to produce the prototype of the car and engine from scratch, puts question on the real intentions of the people who ordered the production of the car, according to this theory. The theory further asserts that the task to produce a car within 4-5 months is sas a very unrealistic. Also, beside all of the impossibilities surrounding the project, none of the engineers assigned to it have had real experience or training in car production. (61saat), (Habervaktim, (Özen) (sources on this theory) Another question is why the project was abandoned so rapidly after the gasoline incident. State officials knew that the gasoline incident was just a minor mistake. Years went by and not a single step was taken for the production of the car. But the newspapers had earlier written that the government had given order for the mass production of the car, as it also can be seen on the newspaper on 31 October 1961. (Picture 1)

5. The new national car project during the AKP period

5.1 AKP

The Justice and Development Party (Adalet ve Kalkınma Partisi, AKP) were founded in 2001 with several prominent members of the Islamist party RP (Refah partisi, former Saadet partisi) among its leadership. Recep Tayyip Erdoğan, formerly mayor of Istanbul for the RP, became the leader of the new party, with Abdullah Gül, who had served as secretary general of the RP. (Atacan 2005; Yeşilada 2002). In the 2002 general elections, helped by a 10% entry threshold, the AKP won a landslide victory, and gained 363 of 550 seats. This enabled it to form a one-party government, which, in terms of parliamentary representation, was the most powerful

government since the ten-year era of the populist Democrat Party in the 1950s. (Parslow, 2006: 36) AKP has since its first electoral victory in 2002, been the ruling party and formed one-party governments, with the only exception in 2015 when president Erdoğan ordered a re-election, after the parties could not forge a coalition government. Although the party is often described as an Islamist or Islamic party, the party officials reject those claims. In 2005, former Prime Minister Recep Tayyip Erdoğan stated, "We are not an Islamic party, and we also refuse labels such as Muslim-democrat." Furthermore saying that party's agenda is limited to "conservative democracy." (Taşpınar, 2012) The party's foreign policy has also been widely described as Neo-Ottomanism (Taşpınar, 2012) an ideology that promotes renewed Turkish political engagement in the former territories of the Ottoman Empire. However, the party's leadership has also rejected this label on their foreign policy. Recep Tayyip Erdoğan was the party's official leader until his election as president in 2014, Ahmet Davutoglu was chosen as official leader of the party afterwards. However, Davutoglu left his seat to Binali Yildirim, after an extraordinary congress decision. Under AKP's "conservative democrat" identity, Turkey has undergone radical changes. AKP is mainly known for improving the infrastructure in Turkey, by heavily funding projects in the construction sector. These improvements have also been one of the main topics in the speeches of AKP politicians, at election times. Beside the construction sector AKP has also shown interest in high-tech development projects. In their speeches the AKP politicians has often used the rhetoric for developing "national" technology, with the emphasise put mostly on national military technology and the national car project. (Aljazeera Turk, Çoskun)

5.1.2 Recep Tayyip Erdoğan

Recep Tayyip Erdoğan has steadily increased his political influence throughout the years. From being the mayor of Istanbul, Erdoğan could now possibly become the first president with enormous political powers that no president ever had in Turkey (even more than Atatürk), after the referendum in 16th April where the presidential system was chosen over the existing parliamentary party system. However, even today Erdoğan has almost no boundaries for the policy that he wants to pursue. The president in Turkey doesn't normally outline any policy; it is normally the job of the ruling government. Even so, President Erdoğan is still very active in the leadership of AKP. Even though he had to give up his official role as the leader of the party, after he became president in 2014, a majority of the people still sees him as the unchallenged leader of AKP. This can clearly be seen on social media and the attendance at political rallies, where he is present. He is also the most active man at political rallies for AKP

at election time, traveling all over the country where his pictures can be seen everywhere. (BBC, 2017) A part of the media also claims that he appoints ministers in the government, and the leader of the party. One example from these claims is that he made the then prime minister Ahmet Davutoglu resign from his position in 2016, after some disagreements between them (pelican files), and replaced him with the present prime minister Binali Yildirim. (Akyol, 2016) It is mainly Erdoğan who shapes AKP government's policy. When President Erdoğan announces a political goal, it is seen as the highest priority and highly regarded by the AKP voters, party members and the businessmen close to him. (Onedio, 2014) So his directive to develop and produce a national car in 2011, has since then been one of the primary goals for the AKP governments. While the national car is yet to be developed, Erdoğan has several times since 2011 brought this issue up on different occasions.

The national car project has moreover been one of the primary election promise's in almost all of the elections since 2011. In this context, it is important to see Erdoğan's role in the process of developing the national car, because the political goals that he outlines in his speeches, are most likely the ones the ones the AKP will try to carry out. If one were to analyse Erdoğan's speeches about the national car project, and other similar high-tech projects the government pursues one can clearly see which type of rhetoric he uses, and the discursive registers that he relates to. This will be thoroughly analysed in this chapter.

5.2 R&D developments and activities, and the Turkish society's automobile culture

AKP's national car project will be used as case in this thesis, but it's difficult to study this project in isolation from AKP's general policy on R&D sector. A special emphasis has been placed upon the R&D sector by the AKP. There have been noteworthy improvements in the main Science, Technology and Innovation (STI) indicators. Table 1 (see attachments) shows that the R&D sector have funded more in AKP's time, since 2002. The R&D investments has to be seen in the same context with AKP's 2023 goals, which promises national success in the future by developing national technology. AKP politicians underlines that this goes through improving the R&D sector, thus they are funding this sector more than the governments before they came to power. (Table 1) Throughout the years the automobile seems to have had a special place for a significant part of the Turkish people. According to Günes, the Turkish society has an emotional attachment to automobiles. The Turkish society has been acquainted with automobiles late for economic reasons, but the longing for automobiles has led to the extreme adoption of this object in a short period of time. Although the Turkish

society's attitude toward automobiles does not differ significantly from other societies, the existing money-gap in the society has made the automobile a permanent symbol of status. When car-themed works in Turkish literature and cinema are examined, it can be seen that the car is portrayed as a reflection of the class-jumping ambition in the society. (Günes, 2012)

5.3 We shall have our own car: AKP's national car project, 2011-2014

Many large-scale projects in Turkey have been promoted in relation to their technological content and “superiority” by the AKP in the 2000s. Not necessarily through their technical details, but rather through the glorification by the use of nationalist rhetoric. Sometimes the technical details of a project can be too complicated for the average voter. Thus to make these projects more salient, politicians has to rely on ways to frame them so that they appeal to the audience in the way politicians wants them to perceive it. Furthermore the politicians will have to rely on discursive registers that the voters relate themselves to, and in the context of technology development in Turkey, this has been through the “tragic” story of national technology development (See “Indicators”, bibliography). When studying the discourse of how these technology development projects are being promoted in Turkey, one can see that these projects have touched national sentiments, and mixed the idea of a technological progress with a “national flavour”. The national sentiments is seen as important especially if the field in question is considered as an indicator of development and modernization of the country.

Within the context of Turkey, the Automotive Industry is considered as a benchmark in the nation's development. Producing up to 1.2 million motor vehicles last year, Turkey ranked as 7th in Europe and the 16th-17th largest producer in the World. The vehicles are car models such as Ford, Fiat, Renault and Toyota that are being produced and assembled in Turkey. (Tradingeconomies, car production Turkey) While having an enormous car industry, the country also has had a national dream that never really came true (the Revolution cars), the development and production of a national car. Thus the introduction and promotion of the national car project in Turkey during the latest years is an example of a technology project triggering a national sentiment, through the use of nationalist rhetoric. The AKP government announced the national car project for the first time in 2011. (Milliyet, 2011) The, former Prime Minister Recep Tayyip Erdoğan made several calls to launch this project, since such a project was considered as an “obligation towards the Turkish society.” (Milliyet, 2011) Erdoğan outlined the project for the first time in the general assembly of TÜSİAD, (Özpeynirci, 2015) and the development of a national car has become a crucial goal of the

AKP governments since then. (Ibid) When the project was first announced, the car was to be made with the cooperation of a businessman, or a car-corporation that could take care of the production of the cars, but the government would take care of the necessary R&D substructure and the funding of the project. The car was planned be a fossil fuelled car, which could compete with the other existing car types in the market. A nation-wide initiative began after Erdoğan outlined the project and stated, “I am sure there is a *babayiğit* (brave person) that will take the responsibility of this project” (Timeturk, 2011). From the beginning the project received great deal of media attention. Especially media channels with close ties to the government were frequently writing about it. News about businessmen that had taken the responsibility to produce the car, politicians that made statements regarding the process of the project, and details about the car were often covered in the media between 2011-2012. The project furthermore became a very popular topic among people, as it can be seen from how the topic was discussed in social media. (wowturkey, Twitter #yerliotomobil) Indicators such as surveys (see below) show that a significant amount of people was supporting the idea and the possibility of the project ever being realised. Some were however also doubting that the project could ever be realised, claiming that this were no more that a stunt from the government before the elections. (Haber3, 2015) The national car project was hardly mentioned in the media in 2013 nor did any politician bring it up, it was as the project was forgotten. But the project reappeared in the spotlight in 2014, after president Erdoğan brought up the issue again, at the opening of a Ford car fabric in 2014.

“We want Turkey to be one of the countries that not just use technology, but also develops and design it at the same time. We believe in Turkish intelligence, Turkish business power. We believe in our country’s designers, we believe in our engineers, and we believe that by cooperating with the world at the point of achieving this business, this work will definitely be carried out in this country and that we will be able to achieve it. In this respect, we support and encourage the activities of our private sector organizations.” (NTV)

Erdoğan furthermore said that Turkey had for half a century dreamt about making an own car brand come to life, "Today we are closer to realizing this dream than ever before, because todays Turkey is not the Turkey of the 1960s and 1980s." (NTV)

5.4 From fossil cars to EVs, 2014 - present

There had been a lot of talk about the national car project, but no prototype was revealed until 2015. Some were supporting the idea of a fossil fuelled car, while other’s meant that the fossil

fuelled cars were already going to be out-dated in technology by 2020 (Aksam, 2014), thus to many there was no economic or technological point in developing a fossil fuelled car. Some sources were claiming that the government was now planning to produce an EV instead of a fossil-fuelled. The EV market seemed to be the future, after the huge success of the Tesla cars. The discussions were to end soon, when in 2015, Fikri Işık former Minister of Science Industry, and Technology, shared the national car's first images with the public. To reveal the project's ambitious character in regards to technological content, the Minister noted, "Let me say first that Turkey has missed the train for the classic internal combustion motor technology. We do not see a chance for sustainable competition there. But electric cars present a new window of opportunity. Turkey will have a car brand but it will not use internal combustion technology. It will be a long-range electric car." (Hurriyet Daily News, 2014)

The project was immediately criticized in social media and by the opposition parties, after the Minister shared the car's first images with the public. People were criticising the car's "national" content, as it was highly questionable to what extent the car was "national." Many in Turkey mocked the project by noting that the so-called "national car" was not a national car, but rather a "national Cadillac." (Özpeynirci, 2015) The car that was displayed by the Minister was actually a 2007 model Cadillac BLS, which was developed in Sweden on a 9-3 platform by Saab. (Ibid)

The Minister answered the critics on the car's "nationality" by noting, "We bought the Saab 9-3's intellectual property rights, but not its name. The brand (of the car) will be a Turkish brand, and it will not be Saab. We'll develop the technology in Turkey." (Hurriyet Daily News, 2015, October) The Minister also noted that Turkey had two options prior to the process of the national car project. In the first option, Turkey had to develop everything alone. In the second option, Turkey could cooperate with a well-known brand. While the first option would have lasted for three to five years with expenses up to 1 billion dollars, the second option (buying the intellectual property rights) would have lasted for six months, and it would have a "very affordable cost" according to the Minister. (Hurriyet Daily News, 2015, October) Since the second option was considered as the rational one, the Ministry chose to buy the property rights from Saab. Another answer to the critics came from one of the senior advisor's of the President, Yigit Bulut. He argued that the media criticising the prototype of the national car was being funded by a "montage bourgeoisie" that is "handcuffs" attached to prevent the growth of the nation states. "The montage bourgeoisie has made a promise to the global system: I will not produce, I will not let them produce. The media saying that the prototype pf

the national car was "fake" are the media that are funded by this montage bourgeoisie. How do we say it more clearly? Should I say state some names?" (Star, 2015)

President Erdoğan also joined the discussions on the prototype of the national EV, and reacted to the critics of the national EV project by making explicit references to the "national agenda." He asserted that some interest groups in the country had always targeted big national projects. To Erdoğan, the aim of those groups was to undermine Turkey's development potential. To exemplify his point, Erdoğan cited some previous national projects that were pursued in Turkey, including an aircraft factory that was established by Nuri Demirağ in the 1930s, but later was closed. (Saraymedya) These examples show that Erdogan, AKP politicians and media with close ties to the government have been defending the project by explicitly emphasizing the national pride and the soon to come achievements attached to it

Nihat Ergün, the former Minister of Science, Industry and Technology in 2012, has furthermore emphasized that the national automobile will play an important role in increasing the added value of the production and bring the country to an important position in innovation and R&D. (Haberler, 2012) The national car (later EV) is yet to be produced, and there have been different statements about the fate of the project since the only prototype was revealed to the public in 2015. Different timelines have been given by the politicians for when the car was going to hit the roads, since 2011 and until today. The latest timeline on the project came from the present Science, Industry and Technology Minister Faruk Özlü. At an automotive industry event, Özlü stated that the national car was going to hit the roads in 2019. "We aim to see the national car on the way in March 2019. We will start the production of the car with a commercial taxi model." (Sabah, 2017)

5.4.1 Creating a brand or producing the EV?

Although the national car project has created excitement in the Turkish society, and been a popular topic that media and politicians frequently have brought up, its details are still very unclear. The first time some tangible details about the project appeared in media was in 2015 as mentioned earlier, approximately four years after the project was announced by the AKP. Since then there hasn't really been any more news regarding the process of the project. The only statements that has been appearing lately are some timelines which the project are expected to be finished within, like 2019 and 2020. (Ahaber, 05.2017. NTV, 01.2016). There has also been another discussion related to the uncertainty of the details around the project. Is it more important to produce the car, or create a national car brand? When the car project was

first outlined, the emphasis was more put on the physical construction of the car and its components. Erdogan and AKP officials were urging automobile-giants to take responsibility for the car project, and produce it in their factories. Turkey has an enormous car industry (for montage and assembly), and is one of the biggest car producers in the world, but it's mostly fossil fuelled cars that are produced. EVs are a new kind of technology, and they are very different from the fossil fuelled cars. An interesting discussion has been if Turkey has the technological capacity to produce a competitive EV in today's market. How does state leaders address this question? The government has frequently stated that Turkey has the technological capacity to produce the EV, and the only problem is seen as the commercial part of it, also to produce a national brand. Actually in 2016, former Technology, Science and Industry minister Işık revealed the "ambitious" technological character of the project, by stating in an interview that the EV was going to be better than Tesla in terms of technological superiority. "While Tesla needs to launch charging stations, we will put the charging station into the car thanks to a range-extending engine. Besides, our vehicles will be safer than Tesla's due to the structure of our software." (Özpeynirci, 2016) The latest statement regarding this discussion came from present minister Özlü, which he made in one private organization's meeting:

"The problem with the national automobile is not the technology, but the problem is commercial. More precisely, the most important part of the national car is not technological. Turkey produces more than 1.5 million vehicles a year. It exports 77 percent of it. We have our production and design engineers. We have our automobile factories. Turkey does not have a problem with producing cars. The subject is commercial, it's about selling, it's about major car-producers in the world, big players. They produce automobiles in millions. Unit prices decrease as the number increases. What we have just made, or what we desire is our own brand of automobile. We are trying to create a national brand. The key criterion in Turkey's national automobile project is not technology, but commercial." (IHA, 2017)

As we can see, to the government the most important part of the national EV project, is to create a brand that can compete with other car brands. But not everyone agrees on this thought of view. Even though supporting the idea of producing a national car, TAYSAD headman Celal Kaya argues that the national car project is not a "brand-enthusiasm" but more of a project that will add value to the Turkish economy, and a production project that will stay in Turkey. (Demircelik)

5.5 The public and opposition's view on the national EV project

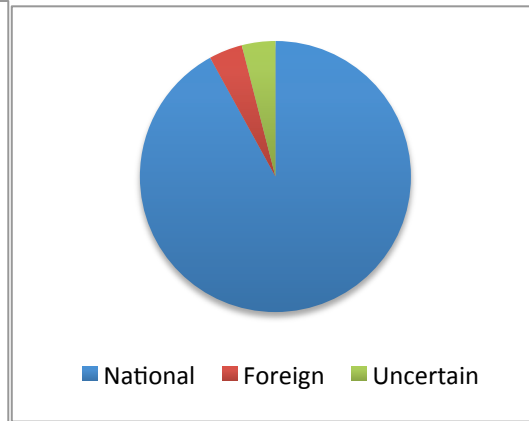
Since it was announced in 2011 the national car project has created lot of excitement among the Turkish people. Discussions on social media, interviews and other indicators show that people have engaged in the idea of producing an own national car, later EV. This has moreover been the case for other national technology projects, especially the ones in the military sector. As the survey beneath indicates, people from different layers in society seem to have reacted positively on the idea of developing and producing a national car. While the realisation of the national car project is still questionable to a part of the people, there hasn't been any discussion regarding the funding and developing national technological projects. The opposition in Turkey has for example perceived innovation and R&D for developing national technology as indispensable elements of national success. (CHP, 2016 and 2017) Moreover, the opposition has repeatedly perceived national technology development as a phenomenon that cannot be opposed under any circumstances, since it is thought to promote modernization, "sustain a nation's independence", and embody "national dignity" in a globalized world. A deputy from the opposition party MHP claimed for example that a perspective that would not adopt a national stance, and would not respect a nation's interests, could never be effective in implementation. Such an incomplete understanding would have "led to a delay in Turkey's efficient utilization of the resources, paved the way towards the multinational companies interests only, and seen no difference between Ahmet and George." (TBMM and Karaoguz, 104) A deputy from the main opposition party has also stated that he believes that the "Turks" can make the dream of a national car come true. (CHP, 2017) The opposition parties stand on these kind of national technology projects also shows that they share the government's stand on technology development, namely technological nationalism.

In 2015, a private survey company conducted a survey of "National Automobile Work Awareness and Expectation Survey" in 10 big cities. As a result of the survey conducted with 1233 people (that owns at least one automobile) in Istanbul, Ankara, Konya, Bursa, Kocaeli, Izmir, Adana, Antalya, Samsun and Gaziantep, the cities with the largest number of vehicles in Turkey, 92 percent of the respondents said, "*I would support the production of a national car*".

Was the project to produce a national car necessary?



Would you rather buy the national car when it's produced, or another foreign car?



Would you buy the national car without hesitation, when the production begins?

Source: Sabah. <http://www.sabah.com.tr/otomobil/2016/01/22/turk-halki-verli-otomobili->

5.5.2 The disappointment from previous technology projects

Various indicators show that the closure of the aircraft factories between 1930 and 1950 and the discarding of the Revolution car project have led to disappointment for a significant part of the population in Turkey, that is among those who have some knowledge of Turkey's history of technology development. The disappointment from these initiatives also appears to have formed this group's views on technology development. The indicators I have used in this context include social media participation, more concretely online comments under different online videos and news about the airplane factories and revolution car project. One example is a video called "The 4 Great Opportunities Turkey Missed" on YouTube (Indicator-1). This video has over 1.2 million views and 2181 comments. The video is about the mentioned initiatives above. A large number of those who commented and those who have got the most "likes" to their comments have written something about how "external forces" that prevented these initiatives, but they further express disappointment about the abandonment of these initiatives. In addition, the video very clearly shows a strong tendency with the majority of the

viewers responding in favour of the video. Another indicator is a Facebook video (Indicator-2) with over 1.8 million views. The same pattern can also be seen in social media responses to this video. The majority of those commenting write about their disappointment for the project being discarded and that today's politicians should conduct a new national car project. The same type of comments can also be seen in the comments' section for other online videos that deal with these initiatives, such as the documentary on Revolution cars (Revolution cars Documentary), the movie about this project: "Cars of the Revolution", 2008, the video "the First Turkish Car: Revolution" (Indicator-3) (this is the same as the video on Facebook but with others who have commented), and the newspaper article about the closure of the airplane factory (Indicator-4, Yenicag, 2013). These comments should not be understood as a representative sample of public opinion in Turkey. However, in the absence of scientific public opinion polls on the subject, they offer an interesting window into public opinion and sentiments regarding these initiatives and technology development in Turkey.

5.5.3 Would the national EV be bought? Technical difficulties and, economic patriotism

Would the national EV achieve good sales figures in Turkey, after its production? There could be several reasons for why people would chose to buy the national EV, or not. One thing that is clear is that people have shown interest in the national EV project, and it seems that a large part will support it. As we also can see in the opinion poll above, over 75% says that they would have bought the car without any doubt. Would the result be differently if they had been asked about a national EV? Do these figures also reflect the reality? We do not know if the questions that were asked in the survey, are enough to give a good picture of car owners, who would have gone for the purchase of the national EV without hesitation. The nationalist rhetoric used about this project seems to clearly have had a major impact on people's perception of the project. It is clear that the national EV must also be economically and technologically profitable. Today, it is primarily fossil-driven cars that are used in Turkey. Of 20 million registered cars, only about 426 EVs where sold last year. (Enerji atlası, 2017) In 2013, a research organization predicted that 30.000 EVs would be sold in Turkey in 2015 (Murat, 142), which has not become a reality. The EV market in Turkey is growing very slowly. This is partly attributed to driver habits and the EVs still being unknown to a large segment of the society in Turkey, as the numbers above shows. It is observed that Turkish people like to drive their own cars even when going on long distances and currently lack of charging infrastructure does not help either. (Report Netherland embassy)

The numbers above shows that EVs did not become so popular as it had been predicted, a research organization named Frost & Sullivan predicts that EVs are expected to reach around 45,000 by 2020, which seems very unlikely to happen in the current circumstances. (Moosa, 2013) For Incekara, Ustaoglu and Yildiz (2014). There are many important factors that should be considered when it comes to the transition from fossil-driven cars to EVs in Turkey. (Ibid) believe that the EV number has increased slowly by time because there still seems to be many psychological barriers against EV based technologies, despite being associated with the national car project. Manufacturers are not able to reduce costs, and final consumers are not willing to buy an EV for many reasons. For car owners in Turkey, it is first and foremost important to get used to EVs. Moving from one type of technology to another can be very difficult culturally and "unfamiliar" at the beginning, as we humans have always experienced with technology. The same goes on with a national EV project. There are a lot of technical and economic challenges that has to be considered. Initially, an EV investment is generally not seen as economically profitable in the beginning because of high up-front costs, and thus the main car driver have difficulties to adopt to the EV technology, because it's seen as a big uphill that will bring a big economic burden.

According to (ibid), the current technology of EV is still very new and cannot meet market expectations in terms of performance and cost charts, in Turkey. In order for EVs to be economically profitable for the regular car owner, the car owners and general population must be engaged in many ways. Although some would have bought an EV based on environmental friendliness, the majority would still consider other reasons to buy it; how will the government solve range problem with batteries? Where will the batteries be produced, and how will they be maintained? How much will it cost to charge? Are there enough charging stations or superchargers in Turkey? It has to some degree been built charging stations around Turkey, and especially in Istanbul. (IEA, 2013) But will these be sufficient for the expected mass-produced national EVs some years later? What about the resale market? Could the national EV be used in geographically remote areas, will the charging infrastructure be sufficient? The questions are many and can go so on. These are all important questions and could possible be significant barriers for the national EV, as they have been for EVs in Turkey today. (Ibid) So according to (ibid) with the current technological barriers, problems in competitiveness in the price for existing EVs on the Turkish car market, psychological barriers, EVs in Turkey does not seem to respond to the expectations of the main stream costumers, unless more effective policies and incentives are brought forth by the government.

5.5.3 Possible policies and incentives:

Several policies could change the perception of EVs among car owners in Turkey, and lead them to embrace this new type of technology. In this context (economical, technological and psychological), policies fronted by the government could play an important role in influencing first-time buyers of the national EV. According to (Incekara, Ustaoglu and Yildiz, 2014) (), "without satisfying early adopters such as technology enthusiast and visionaries, one cannot crossover the chasm and reach pragmatists." Therefore, some steps for the implementation of EVs in the society could be taken by Turkish government through incentives and policies to improve charging infrastructure, lower cost, and resale that are concerning the people who otherwise would not buy the national EV (based on technological, economical and psychological concerns). People living in Turkey's most populated city Istanbul has for example a very big parking problem, due to its very intense structure, and massive population problem. Offering free parking for EVs in the city centre and other crowded areas could make the way for the national EV. However, according to (ibid) the primary barrier that prevents EVs from gaining competitive advantage over fossil fuelled cars "is its upfront costs. A policy to engage people in EVs could be tax and tariff reduction. In Turkey, motor vehicle taxes are one of the highest in the world for fossil-fuelled vehicles, which dramatically increase cost of driving for the car owners in Turkey. Two types of taxation measures are imposed on vehicles in Turkey (IEA, 2013). Both consumers and manufacturers usually criticize government's tax rates. When looked at the general income of a person in Turkey, the difficulties of owning a car clearly stands out. However, there is no reduction expected in taxes for fossil fuelled vehicles in near future. So if the government would imply reduced tax rates on EVs this could probably affect and promote sales. This have been the example in Norway, where owning an EV is clearly more economical profitable in terms of taxes and tolls that cars regularly has to drive through in the big cities, such as Oslo and Trondheim. Beside the government's role in facilitating EVs through a favourable tax policy, one economical factor stands out as a possible big plus for EV's in Turkey, and that is the very expensive gasoline prices. According to statistics, Turkish car owners use one of the most expensive gasoline in the world, and EVs would of course save car owners a lot of money, if they stay at the same level. But again, the charging infrastructure still have to be solved in this context, which still would be a challenge for the national EV.

5.5.4 Economic patriotism

Aside from discussions about environmental friendliness, economical, technological and psychological factors attached to the EV, the charts above also reflect a familiar phenomenon

in the Turkish community, which have been very relevant lately. This phenomenon may also have an effect on the sale of the national EV and should be seen in the same context of technological nationalism, namely economic patriotism. This term became very relevant during the recent economic challenges that Turkey met with the depreciation of the Turkish lira against the US dollar. When the depreciation of the Turkish lira against the US dollar, reached its peak around December 2016 Turkey's president Recep Tayyip Erdogan, called on the citizens to sell their dollars and convert them into gold or the Turkish lira.

“My dear brothers and sisters who have forex under their pillows; my call is to you!”
Erdogan said in a speech in central Anatolian city of Kayseri over the weekend. “Convert those dollars and the euros into gold and the Turkish lira. We are national; we are local. Our Turkish lira is blessed.”

Erdogan's call sparked enormous reaction across the country. A part of the people immediately went to the banks, to exchange their foreign currency. (T24, 2016) (Also covered largely by media channels) Soon after the trending hashtag on Twitter became: #EconomicCoupPlan. As the Turkish lira losing value against the US dollar was seen as manipulation of some groups, towards the Turkish economy.

In order to show that Erdogan did not stand alone and that the people were ready to “defend” their country against the "economical coup plotters", business owners all across the country started offering free services to those who provided proof of a certain amount of dollar exchange. A barber who offered free hair and beard shave to those who exchanged dollars into the Turkish lira, began a campaign that spread to the rest of Turkey with diversified goods being offered to those who would exchange their money. A bread maker's note on the window read, “Bread is free for an entire week for our citizens who sold their dollars for the interest of my beautiful country.” Owner of the bread store told a news channel “Our President made a statement about supporting the economy. And we as business owners will stand 100 percent behind the leader and I am buying breakfast to everyone who sells 100 dollars and bring their receipts with them.” (PA Intelligence)

This example of economic patriotism and loyalism to Erdogan suggests that he has an enormous influence on a significant part of the population; people's commitment to this currency exchange is an example of it. Although an EV costs far more than exchanging foreign currency to the Turkish lira or gold, there may also be a possibility that such rhetoric used for the national EV project in the future may engage people who can afford the EV but

would not really have purchased it because of several reasons (as mentioned above), to buy the EV, to be of “service” to the country as in this example. Here the media's role is also important, media are usually seen as the number one factor that change people’s perception towards something, and that can be used as a tool by the politicians to do so. Making a topic’s positive sides more salient, are usually effective for the positive perception of this topic. And when we look at the media's coverage of EVs and the national EV project, we can see that their coverage is mainly positive. The newspapers and TV channels in Turkey, has mainly covered the rhetoric used by AKP politicians on the national EV project. The use of such type of rhetoric by politicians will be further discussed in this paper.

5.5.4 Is the national EV project an example of populism?

Although the national car project has gotten massive support from a significant part of the Turkish society, it has also been criticised. Not merely the idea itself of developing and producing a national car. As it can be seen that opposition parties also supports the government when it comes to improving the R&D sector, and develop national technology. (Karaoguz, 2016: 102) But many opponents of the AKP criticized the car project since no real advancements were taking place in practice in regards to the project’s realisation. They are also claiming that the project has primarily been brought up in the media just before elections to attract public appeal of the voters. They’re especially using the example of the elections in 2015, when AKP for first time couldn’t form one-party government. As elaborated in one newspaper article, before June 2015 general election, the Minister announced that they were putting significant efforts into the realisation of the national car project. (Karaoguz, 2016: 101) The then Prime Minister Ahmet Davutoğlu also made similar statements. However, once the AKP had failed to form a single party government after the election, the project’s fate became unclear. Whenever it was decided that there was going to be a re-election in November 2015, publications and statements about the national car project re-emerged. The opposition criticized the project with the claim that there was no real progress in implementation, but the project was being used as a rhetorical strategy to win votes. The fact that the AKP’s opponents reacted strongly to the ways that the AKP had promoted the national car project is quite indicative, since it hints at the potential influence of nationalist rhetoric used on technology projects, and its mobilization force. The discussion on populism will further continue below in chapter 6.

5.5.5 Private sector on the national EV, the “babayigit”

No strong actor or any automobile giant have taken the responsibility to produce the national EV, until now. The government has from the very beginning wanted a model where TÜBITAK develops the technology of the EV, and a private actor takes on the production and sales part of it. President Erdogan reacted strongly to not finding any "babayigit" since 2011 that would take this responsibility, lastly on May 20, 2017 at a landslide businessmen meeting. He claimed that no private actors had done enough for the production of the EV. "If no one of you cannot make a national automobile, we should close the shop and go (give up)." (Yamak, 2017)

5.6 The environmental and economical factors of an EV for Turkey

5.6.1 Turkey’s problem with air pollution

Turkey has had its share with air pollution for a long time. (Smith, 2015) Air pollution is particularly significant in urban cities, and it has especially reached a dangerous and acute level in such as Istanbul, Ankara and Bursa. In parallel with the increase in population and income level, the exhaust gases from motor vehicles, which are increasing in number rapidly, constitutes the most important factor of air pollution in Istanbul. The last statistics show that there are 3,8 million vehicles registered in Istanbul. (NTV, .09.2016) To scholars the adoption of EVs could be an effective remedy against the air pollution in Turkey. (Ustaoglu and Yildiz, 2011) EVs might be an alternative to lower oil import, and can lower the dependence upon it, and this also be an alternative to fossil driven cars. In this context the government has also promoted the national EV project by arguing that the EV will prevent the air pollution from fossil driven cars, and is also a example of their environmental policies aiming to fight the environmental challenges Turkey is experiencing today. (Habertürk, 2015) However this rhetoric have been highly criticised by the opposition that have pointed out AKP’s funding and supporting colossal construction projects by businessmen with close ties to the Government, on the expense of green areas. During the period they have been in the government, the AKP has supported many construction projects, which is seen as one of the factors that have contributed to the economical growth in Turkey during the 2000s. The opposition claims that there has been too much unnecessary construction in the city that have led to more pollution that has caused the quality of the air to get much worse. The General Secretary of the man opposition Gürsel Tekin, claimed in 2015 that the air in some parts of Istanbul was putting the population’s life in danger, mainly caused by the increase of

randomly installed concrete plants near populated areas, and that the government wasn't doing anything to prevent it. (Sözcü, 2015)

5.6.3 Turkey's price for oil

According to an article from the Independent, Turkey is the 19th most expensive country in the world when it comes to petrol, with \$5.50 per gallon. (Rodionova, 2016) This price is a big contrast to the annual income of the ordinary person in Turkey, which as mentioned above is a highly debated topic in the Turkey. Oil is further a big problem for the country's economy, as Turkey has to export oil from other country's. The export of oil is seen as the major factor for Turkey's existing state deficit. Turkey has been considered a promising emerging economy since the beginning of the 2000s; however, it struggles with its current budget deficit that is 33,7 billion USD (as of 2016) mostly due to oil imports. (Sözcü, 2017) Transportation uses the majority of the energy import, and in 2012 Finance Minister Simsek said that Turkey's price for oil and natural gas imported from abroad is about 104 billion TL's per year. (Dünyabülteni, 2012) The increase of EVs are seen as the number one factor for the possibly reduction in the dependence on oil import. The EVs uses batteries, and stands out as an alternative to fossil fuelled cars. Thus the national EV project and the government's motivation to realise it could also to be seen in this context.

5.7 When technology becomes much more: Technological nationalism and its three functions

By looking at how the national EV project has been discussed in the public, it is possible to spot a similar "pattern" to other national technology projects, which the AKP governments have being pursuing. Namely, all of these projects have been promoted by the use of nationalist rhetoric and by bringing in national sentiments. The use of nationalist rhetoric regarding these projects has certainly attracted public appeal in Turkey. This becomes clearer when we look at social media, surveys and comments under different online videos and forums about the national car. (Indicator 5, WowTurkey) Another indicator is the amount of vote the ruling party have gotten at the elections. Even though promotion of technology projects through the discourse of nationalism isn't the only explanatory factor for AKP winning every election since 2002, it is to some degree an effective way to appeal to the general voter, and their nationalist thoughts on technology development. The national EV project for instance, has been an illustrative case of when technology development becomes more than just improving technological and economical conditions in a country. Where it instead acquires an ideological character, has social implications for a society, and becomes

an example of technological nationalism. Some of the nationalist rhetoric politicians from the AKP have used can be seen earlier on this chapter. When promoting the national EV project and other technology projects AKP politicians have especially tried to mobilize popular support by underlining that these projects will bring national pride, show the world the strength of the nation and bring the Turkish nation to its former glory (Ottoman Empire). The national EV project and military technology projects has especially been subject of historical references. An example has been the former Minister of Science, Industry and Technology Fikri Isik, when he used a historical reference to promote the EV project, back in 2015. Minister Isik stated that the national car project was a continuation of the Ottoman sultan Abdulhamid II's project to produce a national automobile back in 1884. "In 1884, Abdulhamid Han gave instructions for the national automobile" (AA, 2015) This is an example of making the national car project more appealing to the part of the society who relates themselves with the history of the Ottoman Empire. The rhetoric also underlines that AKP is the successors of Abdulhamid II (Neo Ottomanism). The AKP's identity building through historical registers will be further discussed in chapter 6. We can clearly see some particular examples of when technology has affected the Turkish society, through the politician's use of nationalist rhetoric.

5.7.1 Technology as unifying factor in a politically fragmented society

Turkey has had its share with political fragmentation for a long time. This has varied in different periods, in the 80s it reached a high point, while through the 90s and until the 2000s the fragmentation was not very visible or didn't exist as much in the society. However, in recent years it has really reached a pinnacle. Recent reports about the political landscape in Turkey clearly demonstrate that there is a big rift between people's political views, which have led to a politically fragmented society. The last referendum for the change of political system that will eventually give president Erdogan more power in the legislative system has shown that the Turkish people are highly fragmented when it comes to political standpoint. (Ayaz, 2017) Scholars agree upon that the main reason for this rift is the rhetoric politicians have used to their voters, when talking about the opponent. (Yenicag, 2017) There are also some topics that seem to unify the Turkish people, and that a majority can agree upon, regardless political or religious view. These are the topics that are concerning the state's interest. In Turkey, national technology development is especially seen as an indicator for a nation's success (as it also can be seen in indicator 1,2 3 analysed in chapter 5), thus culturally, technology development is an immense unifying factor in the Turkish society, and this

corresponds to one of the functions of technological nationalism, integration. National technology development is furthermore a sensitive issue in Turkey. The sensitivity surrounding technology development can be traced by looking at the history of national technology development in Turkey. The Turkish people's disappointment on the abandonment of earlier technology projects, are analysed in chapter 5 through the illustrative case of the aircraft factories and the Revolution car project. A major part of the people commenting on these projects, argue that the abandonment of these projects hindered many achievements that could have become a reality for the Turkish nation. The reason for the abandonment of these initiatives is seen as external powers not wanting Turkey to produce its own technology, thus becoming dependent on theirs. (Kara, 2016) (Gültekin, 2015) This is a popular theory that has found consensus both by a part of the people and politicians, regardless political standpoint. This is also a rhetoric President Erdogan often uses in his speeches. One example is given above, when he responded to the critics about the prototype of the national EV, by arguing that there has always been some groups that have worked against Turkey's interest and its chances of becoming technological independent. President Erdogan and other AKP politicians have furthermore repeatedly used this type of nationalist rhetoric to promote the national car project, in the context of past failures and the promised future/national glory. Another example is a ceremony President Erdogan attended to. He pointed out that in the end era of the Ottoman empire and in the first years of the republic there were initiated serious projects within the defence industry with great enthusiasm, by names such as Nuri Demirağ and Vecihi Hürkuş in the 1920s and 1930s. But they were not supported. Erdogan further states that, "Turkey has been forced and condemned to external dependency rather than establishing a strong defence industry." (T.C.C.B, 2016) This is an example of a element of nationalist rhetoric, focusing on a form of revivalism (Amir, 2007: 289) when state officials promote the car project and other technology projects, based on the Turkish context of technology development, and by using historical references to the Ottoman Empire, they imply that Turkey will find its technological superiority that was actually going to be achieved by initiatives such as the aircraft factories and Revolution car projects, but was hindered by manipulative groups and external powers that didn't want Turkey producing its own technology, thus the country could be dependent on other countries. It is important to understand the national car project within this context, the context of Turkey's history with technology development.

Another example on the use of nationalist rhetoric's in the context of the glorious past and the utopian future is the nationally developed tank, Altay. The Altay is a modern main battle tank developed nationally in Turkey. 250 tank units are announced to be mass-produced within 5 years, by the government. The tank project have had costs over 1 billion dollars for the prototype's production and projecting stage. (Gözütok, 2016) It's name originates from Turkish war-hero Fahrettin Altay, who commanded the 5th Cavalry Corps in the War of Independence. The surname Altay was given to him by Mustafa Kemal Atatürk. (Sözcü, 2016) The main origin of the name Altay name is from Turkish mythology about epic of creation. The superiority of the Altay tank's technical features has lately become a source of pride for a majority of the country. Its name is meant to represent the grandeur of Turkey's national identity. The Altay is developed and designed entirely by Turkish engineers, according to the government. It marks what president Erdogan calls technologically independent and strong Turkey, which is a rhetoric that means that Turkey has reached the capability to master complex and difficult technologies and move forward in the development of new ones. "We are soon starting the serial production of our Altay tank. Our national attack helicopter has gone over to serial production. Turkey (we) will not make the same mistakes from 1930s until 2000s. We are planning to lift the external dependency on the defence industry. Some countries are turning elbows to us. These are also friendly, allied countries. They are afraid of strong Turkey." (T.C.C.B 2016) Just as the national car project, the Altay and other military technology projects have become a symbol of technological nationalism, through the use of nationalist rhetoric based on a type of revivalism that President Erdogan and the AKP government have repeatedly advocated. This can also be seen from a statement president Erdogan made in 2012, at the opening ceremony of the Altay tank:

"We have to question in detail why Turkey have been absent or have been kept absent from producing its own weapon, aircraft, helicopter, tank, ship. If we do not question this, we can not move the huge steps taken in the last 10 years to the future." (Milliyet, 11.2012)

The AKP top officials linking these technology projects to the history of the Ottoman Empire when it was militarily superior in Europe, is again a form of revivalism that implies that Turkey has found its technological superiority that had been lost for hundred of years. The statements above from president Erdogan shows how he linked this technological projects with Turkey's history with national technology development and the history of the Ottoman Empire in its prime time. He furthermore accuses other countries, the main opposition party CHP and "manipulative groups" of having destroyed all the opportunities the Turkish people

had to become a technologically and military great nation. In this context high-technology development is seen as a factor for regaining national glory. This is where the cultural meaning of these projects lies, they are seen as a bridge to reach the promised “new Turkey” in 2023, which will make Turkey one of the superpowers in the world.

5.8 The 2023 vision and “new Turkey”: The utopian future

It is possible to spot a similar pattern in a majority of the technology projects advocated by president Erdoğan and other AKP proponents. They are all outlined to reach a utopian future, namely the “new Turkey” or the “2023 vision”. The 2023 originate from an election declaration in 2011 by the then Prime Minister Recep Tayyip Erdoğan's. The choice of the year 2023 is no coincidence as this corresponds to the 100th anniversary of the establishment of the Turkish republic, but also the signing of the Lausanne treaty. The Lausanne treaty was a peace treaty signed in Lausanne, Switzerland, on 24 July 1923, between the Allied nations and the Ottoman Empire. It officially settled the conflict that had originally existed between the Ottoman Empire and the allied nations, and resulted with the establishment of the Republic of Turkey. The Lausanne treaty is especially a much-used topic in AKP's 2023 rhetoric. Erdoğan and the AKP has repeatedly criticised the outcome of this treaty. They claim that the Lausanne treaty is a big failure, and contains "secret" 100-year agreements signed with Western imperial powers that hinder Turkey's further growth and prosperity. It is furthermore believed that these agreements will be lifted after 100 years in 2023, in the millennium of the republic. In this context the AKP government claim that they will transform Turkey into an “elite state” by 2023. (BBC, 2016)

The AKP government outlined 63 goals in 2012 for the 2023 vision, but this has later been increased to 100 by the then Prime Minister Ahmet Davutoglu under the name of “the new Turkey contract” (AKP, new Turkey contract). In general, these goals are actions the AKP government will take in order to keep their promised goals. These actions will be taken in order to advance Turkey in the fields of economy, justice, health, transportation, tourism and art. The most popular is the economic goals, which promises Turkey to become one of the top ten largest world economies (currently 18th). Targets such as increasing national income per capita, reduce the unemployment rate to 5% (11.8% in 2016), avoiding economic crises and making national tanks, planes, cars and weapons produced and developed in Turkey have been among the basic rhetoric of the party especially in the 2011 and 2015 general elections, and also before the constitutional referendum that was held on 16th April 2017. The presidential system that was accepted by Turkish constitutional referendum forwarded by the

AKP and MHP is also included in the "Target 2023". The new presidential system means that the president will get expanded presidential powers, thus become more influential in every aspect of decision-making mechanisms. According to the AKP this system will help Turkey escape middle class trap: "this system will allow swifter decision-making mechanisms, increase domestic and foreign investments and bolster exports, GDP and national income. Thus, the increase in income per capita will allow our country to escape the middle-income trap." (Daily Sabah, 2017) So according to Minister Özlü, the presidential system will make the dream of a national car come true.

The AKP's vision for 2023 is also about creating a new identity for the state and the nation. The party wants to "recreate" the magnificence Turkey lost with the dissolution of the Ottoman Empire. So this journey is not only in the foreseeable future, it is also a journey back in time when the greatness was lost. The AKP has used this narrative in their rhetoric several times, as we also have seen above in the example of the national EV project. In this context, the economic success of the AKP in the early 2000s is perceived as a step that is taken in the right direction toward the creation of "the New Turkey/2023 vision in the new millennium. AKP officials and scholars who have promoted "the New Turkey/2023 vision," refer usually to the Turkish economy's strong recovery after the 2001 economic crisis, under the AKP government's leadership. The AKP conducted a series of reforms in politics, the economy, foreign policy and other key areas. In contrast to these arguments for promoting Turkey's economic growth under the AKP, many scholars have been quite sceptical about the validity of AKP's success for the creation of the "new Turkey". The Turkish economy's growth record is said to have been exaggerated. For instance, economist Dani Rodrik have been criticising the rhetoric used by the government to advocate the economical growth in their period, arguing that the economical growth in the AKP's period is no big "miracle" conducted by the policies by the government, by making a cross-country comparison. According to his article, the Turkish performance is not an exception when it is compared to other countries that are in the same league as Turkey. Such as Sri Lanka, Bangladesh, Uruguay, Peru, Argentina, Ghana, Indonesia, Philippines, China and India. (Rodrik, 2015)

5.8.1 Technological projects for 2023 vision: Technological independency

So to understand the discourse within the national car project and other national technology projects are being introduced by the government and discussed, they must be seen in the context of the 2023 goals based on a nationalist rhetoric about the glorious past and the utopian future, as in this case its about the Ottoman Empire as mentioned before. A longing to

"a civilization that, having flourished with various cultures, has left its mark on the history of humanity." (T.C.C.B, 2017) And thus an imagined future where this civilization will be revived again, where Turkey is technologically independent from other countries and foreign technology, made possible through the 2023 goals. The most important person who promotes and outlines these projects has undoubtedly been President Erdogan. Almost every project is outlined, or promoted in the media by him. Erdogan has repeatedly throughout the years underscored the aim of reviving the "lost" civilization through immense nationalist projects: "Every vision of culture entails a vision of civilization as well, and thus one must also make efforts to build and revive the civilization while thinking over the culture. We have to work more so as to duly live up to this great heritage." (T.C.C.B, 2017) He has furthermore underscored in this context that Turkey has to rediscover and rebuild the national and cultural values, "against cultural alienation and imperialism." (T.C.C.B, 2017) One of the most relevant examples of president Erdogan directly advocating for the 2023 vision, through the discourse of the Ottoman Empire was right before the constitutional referendum:

"As the grandchildren of an ancestry that had closed an age and opened a new one, we enjoy the power, will and ability to build a new and great future for ourselves. That is why we say 'great Turkey;' that is why we say 'strong Turkey; that is why we bequeath our youth a vision for 2053 and 2071; and that is why we are working to implement a new system of government through a constitutional amendment in our country. That is the reason why our policies and actions are centred on the national and the native. We should set new cultural goals for ourselves in accordance with the 2023 vision." (T.C.C.B, 2017)

6. Consequences on the use of nationalist rhetoric

As it also can be seen from the analysis above, the use of nationalist rhetoric by the government and its proponents have had a huge effect on people's perception of technological projects. The nationalist rhetoric used on national technology development by the AKP in the light of the 2023 vision has been understood as Turkey finally being able to break away from its unfortunate history of technology development. The national EV project together with all other technological projects has been promoted by the AKP based on this narrative. They have furthermore all been a part of a bigger plan, namely the 2023 vision, which has set Turkey huge goals in order to revive Turkey's power during the Ottoman Empire's period. However, what are the consequences of the use of these this type of nationalist rhetoric? It is for certain difficult to outline some clear consequences that this rhetoric have caused, since

the national EV project is still in process, and the conditions that have appeared now could change in the future, in short; uncertainties are surrounding the project. But it's still possible to point out some consequences this type of rhetoric brings with it, by looking at the possible difficulties of producing an EV, its psychological implications and the political power it gives to politicians.

6.1 Difficulties of producing a national EV

A discussion that hasn't been enough discussed in media related to the national EV project is the uncertainty of the details surrounding the national EV project. How will the government overcome the challenges that come with this initiative? This was also slightly analysed in chapter 5, but the issue needs further elaboration. Does Turkey have the technological capacity to produce the national EV? The challenges surrounding such a huge project are sometimes not taken into account, and it isn't also so much salient as a discussion topic in the public, when the topic is presented through the use of nationalist rhetoric. There is also another question that needs to be asked, in the same context of the discussion about the technical difficulties for producing a national EV. Should Turkey really attempt to produce an EV? Furthermore, are the economical conditions ready to be charged with a huge automobile production? Yes, Turkey has a huge car industry, and is a big economy, but there is still no clear answer to these questions. It is difficult to predict a process that hasn't really started yet, so its expenses and details are still unclear. It is however possible to get a better insight to this question, by asking some other sub-questions. How much of the national EV will be of genuine national technology from Turkey and a "national production" in this sense? The goal outlined by the AKP is to develop, design, and produce the EV totally in Turkey, with most parts designed by Turkish engineers. The answer on what "genuine national technology" depends of course on what the AKP government means. To give two different examples; Will the EV be a product of Turkey's own technological production processes, from Turkey's own raw materials and own design by engineers? Or will the EV be produced by gathering all of its components from abroad, and assembled in Turkey? The last statements from president Erdogan on 24th may 2017 shows that the car will be "Made in Turkey" (Ahaber, 2017). But does Turkey have the technological capacity to develop a competitive EV?

Table 1 shows that the AKP has been funding R&D projects more than ever before in Turkey's history. But still, is it sufficient for producing an EV that could compete with the other automobile giants? Will all the costs that will arise in the production phase of this project be worthy of final production and the final product? Will it really be an investment for

the future, or will it become an out-dated technology that will not be worth using after three years? How will the government solve the biggest issue of EVs, also battery production and recycling? How much will the EVs cost, and who will have the purchasing power? Apart from all this, how will the car giants who have big investments and factories in Turkey, respond to the realization of the national EV project, will they try to prevent it? (Etc.) There are still many questions that are unanswered even though six years have passed since the national car project was first announced by the AKP government, in 2011. The possible realization of the project could lead to huge improvements in many sectors in Turkey. The EV becoming a possible export product, it being an alternative to oil import (account deficit's biggest contributor), and the factories that is needed for the production of the EV that will be built and thus create jobs and increase employment, are some of its economic factors. The EV would also to some degree mean a cleaner air, as there are to some degree consensus among scholars that EVs pollute less than fossil fuelled cars.

All of these positive sides of the possible production of a national EV don't hide the fact that there are a lot of questions, which needs to be broadly discussed in the media and by politicians, but this hasn't been the case until now. The problem is that they aren't introduced as salient details by the media or the politicians, as the focus lies more on the indisputable effect of national pride, the utopian future and the national sentiment that bolsters with the discussion about the national EV mainly being in the realms of nationalism. From this perspective, the nationalist rhetoric that sometimes becomes a positive force for people's support of the country's growth is turned into something negative by not discussing relevant challenges and complicated details that comes with an EV production.

6.2 When ideology forms the research on science and technology

A consequence of an ideology driven approach on science and technology (2023 vision/new Turkey, nationalist and religious goals), is the possibility of the decreasing of the quality on scientific and objective research. The example in this context is the formation of Turkey's most important science and technology research institution, TÜBİTAK, (TÜBİTAK's importance has been explained above). As the leading state intuition that works on science and technology projects TÜBİTAK has to be an objective institution, but according to critics this hasn't been possible, as the AKP has repeatedly influenced TÜBİTAK based on their own ideological understanding. According to a PhD thesis, the AKP has widely interfered and put pressure with the workings of TÜBİTAK in Turkey during the 2000s. (Karaoguz) To the critics, TÜBİTAK has become formed after the government party's world-view, instead of

scientific principles detached from religious, ideological or political considerations. An example given in this perspective is the debate on the theory of evolution. The dominant view among the conservatives in Turkey asserts that the theory of evolution contradicts with the teachings of Islam. (This claim is open to discussion, but this is the dominant view among conservatives, at least according to the media) Thus, the AKP has its own ideological perspective on the issue. The party's (or a deputy from the party) thoughts on the theory of evolution was revealed by the then Minister of National Education in 2008, as the Minister considered Darwinism as a "weapon of materialists and infidels." (Steinvorth, 2008) In 2016, another AKP deputy suggested the removal of Sigmund Freud and Charles Darwin from the Ministry of National Education's books, to replace them with the teaching of tawhid (the oneness of God). (Yeni Akit, 2016) This has now become reality, after the Ministry of National Education, removed the theory of Evolution from the curriculum of the social sciences course that are used for the preparation of textbooks and classes. (çepni, 2017) As an autonomous institution with the goal of shaping Turkey's STI policies in a rational manner, TÜBİTAK is said to have casted doubts on the quality of its objectivity, by becoming a part on ideological and religious discussions. (Karaoguz, 2017: 123)

6.3 Populism?

The use of nationalist rhetoric doesn't always win the people's fully trust. The EV project among with all the other nationalist technology projects have until today been introduced as being a part of a bigger plan, namely the 2023 vision or "New Turkey" as it was called later. Even though this powerful rhetoric has had its effect on a part of the people (as the amount of votes the government party have received in the last elections), not everyone is affected on AKP's use of nationalist rhetoric, and not everyone shares the same understanding on technology projects. Where a part of the society is affected by the nationalist rhetoric, and base their understanding on what this rhetoric outlines, other's don't. We have seen the unifying effect of technological nationalism in the Turkish context, through the national EV project (and other technology projects promoted by the AKP government) touching a national sentiment, by relying on the disappointment of the Turkish people has experienced through the abandonment of the aircraft production and the national Revolution cars project. However, there are also opposing views that claim that the use of nationalist rhetoric and the whole 2023 vision is an example of populism by the AKP government. There are some arguments that are used to criticise the AKP government, which could be gathered under these headlines:

1. Every time an important technology project is outlined, it is before an election. The first time the national car project were made popular by media channels with close ties to the government, and the AKP officials were before the elections in 2011, and the last time were before the constitutional referendum. Thus in this perspective, the national car project is seen as an “election investment”. Just as a journalist underscores in an article from a newspaper known to oppose the policies of the AKP, in 2015: “Believe me, if the AKP actually managed to produce a "national" car, we would be first to applaud. But the introduction hastily of the "national" car production just right before the elections shows that the case is not to produce, but that it’s election propaganda. As long as it holds until 1 November, it’s enough. It’s enough for the AKP to show it off in a few election posters and some AKP-trolls screaming, "this is work and action!" on social media." (Erdem, 2015) The promotion of the national car project in the election periods by the AKP has also been mocked in a popular Turkish forum, named “eksisözlük”. A lot of users have almost every year after the announcement of the car in 2011 written entries about the national car, mocking the process’s uncertainty. “There is a little more than a month of time left to the referendum. This means that our national submarines, our war planes, our space ships, and most importantly our national car, will appear on the (public) agenda within a week.” (eksisözlük, 2017) (eksisözlük)
2. Another argument for the national EV being an example of populism, and maybe the most debated one is the uncertainty surrounding the project. This has been broadly covered in the analysis made in chapter 5. Very few of the important questions and issues regarding how the government is planning to handle the challenges of developing, producing and exporting the national EV is still unanswered. There exists almost no informative detail regarding the EV project, even six years after its announcement (which also made it difficult to discuss in the case of this thesis). A prototype, (which really wasn’t the prototype of the national EV) was revealed, only in 2015 and that wasn’t the car that was to be produced, but instead a model developed by SAAB, which were only used as an example. The uncertainties surrounding the EV project have increased more lately, with president Erdogan’s statements regarding the national EV. President Erdogan made some statements regarding the national EV on some recent events in May 2017, which was mentioned in chapter 5. These statements contradict with what the Ministers responsible for this project had announced in the period between 2012-2017. Erdogan hadn’t almost mentioned the EV project in this

period, except some examples. But Ministers were sometimes informing that the EV was going to be on the road within 2019. Erdogan's recent statements about his disappointment in the businessmen not taking initiative for the production of the National EV (president Erdogan claimed that in the model he had announced where a businessmen would take all the responsibility of the production and the government supporting it through TÜBİTAK), and him asking the TOBB leader to develop it instead, have made the situation of the EV project even more unclear. A deputy from the main opposition party CHP has also criticised the national EV project's uncertainty and it being a election project: "We are not opposed to the national automobile project as CHP, we just want it to be realistic, we do not want money that has been delegated from the budget to be thrown in the trash for nothing. We understand this project as a political election project. And we believe that this project will not be realized" (Habertürk, 01.2016)

3. The 2023 and the "New Turkey" rhetoric which mainly promises an utopian future is seen as promises which never will come true, and just a rhetoric to make people forget the problems they are experiencing today, and focus on an imagined future. The AKP's election manifesto vision 2023 and later "New Turkey" was centred on concrete economic achievements highlighting the improvements that had been made in all sections of society during the period of AKP rule. Furthermore both programs was forward-looking and publicized ambitious projects notably in the realms of transport, communications and defence industries in line with the image of a "strong Turkey" as Turkey looked ahead to celebrate the centennial anniversary of the formation of Turkish Republic in 2023. In this context the national car and the National Altay tank were put forward as some of the main initiatives to realize this future "Strong Turkey." However, the goals AKP announced and still are promoting today (President Erdogan recently stated in 23th May 2017 that they: "aim to increase the national income per capita in 2023 to 25 thousand dollars and the exports to 500 billion dollars, and become one of the world's 10 biggest economies" (Aksam, 2017), which would be achieved by 2023 looks like impossible, according to the opposition. The AKP had announced the exact same goals when the 2023 vision were first announced in 2011, and the national EV was later promoted as one of the projects that would make the way for these goals. The national income in 2023 would be 2 trillion dollars, per capita national income 25 thousand dollars, exports would be worth of 500 billion dollars, unemployment would go down to 5 percent, and the number of

employed persons would be 30 million. The 2014 results showed that these goals were a dream, and it seems that these targets would not go beyond being more than a populist rhetoric, according to Ünker (2017). Turkey's dollar-based national income is at the level of 854 billion 791 million dollars. According to the information on Tradingeconomics, the world's 10th largest economy is Canada, with a national income of 1 trillion 552 billion 800 million dollars. "Even if Canada does not increase its national income in the next five years at all, even assuming that South Korea, which ranks 11th with GDP of 1 trillion 377 billion 870 million dollars, will not go up one step, Turkey has to increase its national income over seven years over 698 billion 9 million dollars. That's an annual increase of 100 billion dollars. In this respect, the rhetoric of being the world's 10th largest economy is not realistic at all." Ünker (2017) The 2023 vision is instead seen as the millennium where Erdogan seeks to reverse the broad legacy of Mustafa Kemal Atatürk by the opposition, and abandon his secular state structure: "his critics believe the question of what he really wants is finally clear after 15 years of his rule: To erase the secular state Atatürk rescued from the dismembered Ottoman Empire and recast the republic in his own, equally autocratic yet more Islamist image." (Champion, 2017)

6.4 An anachronistic understanding of technology development?

The different indicators used in this thesis show that a part of the population in Turkey may have an anachronistic understanding of technology, namely the "national" character of technology development. Cambridge dictionary defines anachronism as "a person, thing, or idea that exists out of its time in history, especially one that existed or existed later than the period being shown, discussed." This is also possible to see when we take a closer look at the rhetoric Turkish politicians have used regarding the national car project. Following the First World War, there were several colossal nation-building projects across the world, as several empires collapsed and nation-states were founded from these empires. Several countries experienced major technological developments and to develop technology was seen as an indicator of which country led the "race" (this is also where the whole concept of techno-nationalism originates from.) So it was a "nationalist" understanding of technology development and production, where, for example, all the components of an airplane or a car should ideally be produced domestically. However, today we live in a very globalized world where it is difficult to talk about technology products having a "nationalist" character. Technology products such as cars and its parts are no longer explicitly produced and

developed in one single country. Hence, it is difficult to talk about a "national car" belonging to a country or where 100% or even 80% of the car is produced in that country. For example, Ford Transit Connect is produced in Turkey using components originating from many different countries, and then shipped to the United States. (Keegan, 2017) Even if it is (mostly) produced and assembled in Turkey it is perceived as a foreign car, raising the questions what makes this car a foreign car, rather than a national one? The notion of a "national car" in such a globalized world reflects an anachronistic understanding of technology development and it can be argued that this understanding is not relevant in a context where the car industry has become global enterprises with production and assembly factories located outside the countries in which car companies initially emerged. The idea of a national car made more sense in the historical context of early World War I period, but less so today. Hence, what can be called a national technology development in such a globalized world? Should the focus in this discussion perhaps be on what this project can do for the existing car industry in Turkey, instead of focusing on the 'national' character of the car?

Conclusion

This thesis has examined the workings of nationalist rhetoric in Turkey manifested through the discourse on the past's failures (disappointments) and the utopian future (2023 vision). The analysis in chapter 5 and 6 has focused on the concept of technological nationalism as widely presented through the case of the national car (EV) project. As demonstrated throughout this thesis, technological nationalism works as a form of ideology to create a shared feeling of national pride through the glorification of technological projects, and stand out as a powerful rhetoric that AKP politicians have relied upon. What differentiates the national EV project (and the other national projects promoted by the AKP) from similar technology initiatives in other developed countries is the imagination of the utopian future (Neo-Ottomanism), which will accordingly bring back the glory days. Based on this perspective, the national EV project doesn't only represent the history of technology of Turkey, but also the cultural history of a nation trying to regain its former glory by breaking away from its unfortunate history on "external dependence". The history of national technology development in Turkey seems to be filled with disappointments for a part of the Turkish people. People still remember the aircraft factories that were closed in 1950s and the Revolution car project that never became a reality. These experiences have unified a part of the people with the promotion of the national EV project and other technological projects

under a common national sentiment, even though the society is heavily politically fragmented. Looking at the level through which the ideology of technological nationalism is materialized, I discussed the national car project as an amalgamation of technical rationality, the rhetoric of nationalism, and the cultural meaning of modernity. We see that technological nationalism dissolves boundaries between people that share identical nationalistic feelings. In this light technology is seen not merely as a physical object but rather than as a collective symbolism.

Even though technology seems to have a collective function through its glorification by the use of nationalist rhetoric, it does not go without consequences. The real discussion about the EV project has unfortunately not happened because the EV project has been discussed based on its “national” character. Politicians and the biggest media channels have focused on the national pride and national success this project will bring to the country. When this has been how people discuss the EV project, it has prevented the real questions from being asked to politicians whom have promised the people to produce a national car. So the real constructive discussion about the EV project has not happened in the last six years. This also appears to be due to the uncertainty surrounding the project because of the small amount of details that have been announced. The government seems also to have asserted its ideological belief into institutions that actually should be objective in its nature, thus casting doubt on TÜBİTAK’s capacity to develop the EV, as it seems the AKP is interfering with the institution’s science and technology research.

There is a rule in physics that if something has a huge effect, it also has a huge backlash. The use of nationalist rhetoric by the government and its proponents seems to have had a significant effect on the people’s enthusiasm surrounding the national EV project, and other technology projects. This could lead to positive growth if directed in the right way. But if these promised projects don’t become a reality, and if the politicians again abandon them, (just like with the aircraft factories and Revolution cars), then it could lead to crushing of a part of the Turkish people’s hopes and dreams once again. There is a possibility that this might be the case again. Considering the uncertainty surrounding the national EV project, and the 2023 goals. Will the government succeed in producing a competitive EV, and overcome the challenges it brings with it? We still don’t know. The 2023 vision and the technological projects announced to reach the goals set for the 2023 vision, seems more difficult with each passing year. The 2023 vision has furthermore been criticised for being a populist rhetoric that only becomes relevant at election time. The contradictions and the still unanswered questions

regarding the national EV project, are putting the realisation of the project into question, and are strengthening the possibility of these initiatives being an example of populism. It has nearly gone six years since the project was announced, but it looks like no real advancements have been made, as it can be seen from president Erdogan's latest statements. The AKP government will continue to be accused of outlining these goals just to win votes, as long as the national EV isn't realised and the 2023 goals not met.

Aside from the analysis on the use of nationalist rhetoric as impetus for technology development and its consequences, this thesis has also been meant to give a brief introduction to Turkey's history with national technology development, and also a brief overview on what implications this EV initiative could have for Turkey, in terms of environmental issues and economical problems. It has furthermore discussed the challenges awaiting the AKP that aims to produce a national EV. People's decisions to buy the national EV will be affected by the perceived challenges and risks. For example, making the people believe that the EV will have a durable, advanced technology and that the national EV project has emerged as a result of a certain technical / professional qualification will positively affect the national automobile purchase decision. But the uncertainty surrounding the national EV's technical features, and the insufficient charging structure in Turkey is making it more difficult for the general consumer to adopt the EV technology. An example of populism or a tool for reaching a utopian future (New Turkey/2023), will the national EV project ever be realised?

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Attachments

Picture-1 "Turkish type of automobiles will be sold from 30.000 liras" 31.10.1961



Table 1:

	1990	2002	2006	2010	2012	2014	2015	OECD Total 2013
R&D intensity (%)	0,33	0,53	0,6	0,84	0,92	1,01	1,06	2,37
Full-time- equivalent R&D personnel (*1000)	14	29	54	82	105	115	122	

R&D personnel per 10,000 total employment	-	14	27	37	44	45	46	
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Statistic from TÜBİTAK, found in Karaoguz's PhD thesis, page 70.