

# Application of the Structured Dialogic Design Process to Examining Economic Integration and Free Trade in Cyprus

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## Abstract

*Following the failure of the Annan Plan to reunite the island, Cypriot peace pioneers identified the challenge of economic integration as root cause of the perceived widening of the gap between the divided communities. Three successive Co-Laboratories brought together twenty-one (Turkish- and Greek-speaking Cypriot) business and economist stakeholder representatives to create a citizens' platform and devise an action plan. The Co-Laboratories provided space for exploring future options and goals, besides diagnosing current problems in economic integration and the free movement of goods and services in Cyprus. They aimed at envisioning the ideal, desired situation, defining the current problematic economic situation, and exploring influences between alternative actions that could improve the current situation. They were implemented using the Structured Dialogic Design Process within the context of rich web-based communication. Participants invested 325 person-hours. The UNDP sponsored the Co-Laboratories in the context of the Civil Society Dialogue Project.*

## Keywords

Structured Democratic Dialogue, peace, economic integration, bi-communal, Co-Laboratory, Action Research, Interpretive Structural Modelling

## Civil Society Dialogue Project

The political climate in Cyprus was not the most desirable after the failure of the Annan Plan to reunite Cyprus. The Plan (United Nations, 2004) was the result of negotiations between political leaders of the Greek and Turkish communities in Cyprus under the auspices of the United Nations (UN). Kofi Annan, UN Secretary-General at that time, presented and put this plan to simultaneous vote as separate referenda on the two sides on April 24, 2004 (Wright, 2004). Whilst the proposal received a 65% favourable vote from the Turkish Cypriot (TC) community, the Greek Cypriot (GC) community rejected it by over 75% (BBC News, 2004). The fact that TCs said “yes” whereas the GCs said “no,” damaged the atmosphere of rapprochement (Morgan, 2008). After the referenda, TCs felt frustrated and withdrawn, whereas GCs felt worried and puzzled. The climate was one of disappointment, discouragement, and disempowerment. There were attempts to bring the communities back together and discuss what went wrong (Sözen and Özersay, 2007; Varnava and Faustmann, 2009). However, no public debate was held to this end. Moreover, the activities of civil society, such as bi-communal meetings, had diminished. Peace pioneers from both communities launched in 2006 the “Peace Process Revival” aiming to re-launch a new citizens’ dialogue (Laouris et al 2009a). Their work identified “financial interests of politicians and ordinary people on both sides” as one of the most influential factors and gave birth to the Civil Society Dialogue Project<sup>1</sup> (CSDP), which was funded (December 2006 - August 2008) by the United Nations Development Program (UNDP). The project employed more than

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<sup>1</sup> <http://www.civilsocietydialogue.net> ;  
[http://www.futureworlds.eu/wiki/Civil\\_Society\\_Dialogue\\_Project\\_in\\_Cyprus](http://www.futureworlds.eu/wiki/Civil_Society_Dialogue_Project_in_Cyprus)

10 Co-Laboratories using the Structured Dialogic Design Process (SDDP) methodology. The Co-Laboratories reported here focused on the economic perspective. The participants outlined the current status quo, and generated a vision and an action plan aiming for economic integration.

## **Economic situation**

The economic situation in the GC and TC communities is described by GDP (Gross Domestic Product) and GNI (Gross National Income, formerly GNP -Gross National Product) for the period between 2000-2012 in relation to the business cycle as coincident<sup>2</sup> or lagging<sup>3</sup> indicators. Figure 1 addresses the GC community and Figure 2 the TC. The summary of both GDP and GNI shows that the situation in the Greek-speaking community has been relatively stable. The highest GDP growth rate of the south economy was 5.1% in 2007. From 2008 onwards, growth is negligible or negative. In contrast, the GNP growth rate of the Turkish-speaking community shows radical changes during the past decade. The millennium started with a negative growth rate, which suddenly turned into a positive growth rate with more than a 10% increase, from 5.4% in 2001 to 6.9% a year later reaching a peak of 15.4% in 2004. Despite the lack of international recognition for the north, the GNP growth rate of the north economy not only increased steadily between 2002 and 2006, but also was much higher in comparison to the GDP growth rate in the south economy (e.g., Watson 2006)<sup>4</sup>. An unpublished study by the World Bank shows that in 2004, the GDP per capita in the north economy was 76% of the GDP per capita in the south economy in PPP (Purchasing Power Parity)-adjusted terms. This is despite the fact that only 26% of the island's total

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<sup>2</sup> Economic factors that change at approximately the *same time* while a country's economy as a whole changes. Coincident indicators thus mirror the current situation of an economy.

<sup>3</sup> Economic factors that change *after* the economy as a whole has changed. Lagging indicators therefore reflect the economy's past performance.

<sup>4</sup> Since the annual growth rate of the TC economy is given in reference to GNP instead of GDP, the data from both communities should be compared carefully.

population belonged to the TC community, whereas 74% belonged to the GC community (Watson 2006).

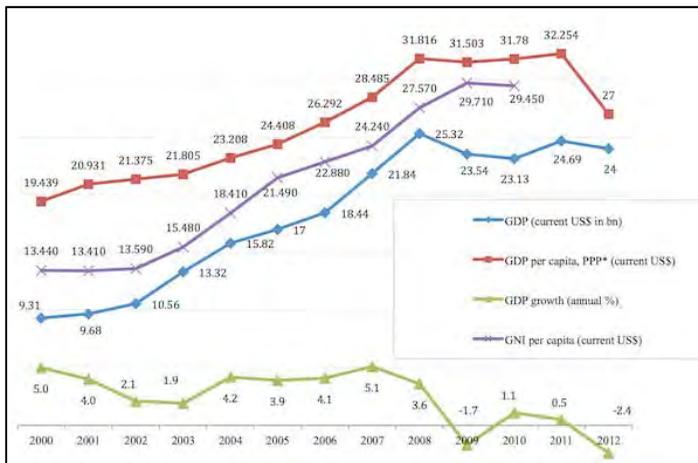


Figure 1. Coincident indicators of GC community. GNI per capita (current US\$) for 2011 and 2012 not available (2012 – estimation) Sources: Central Intelligence Agency (2013), Watson (2006), World Bank (2013)

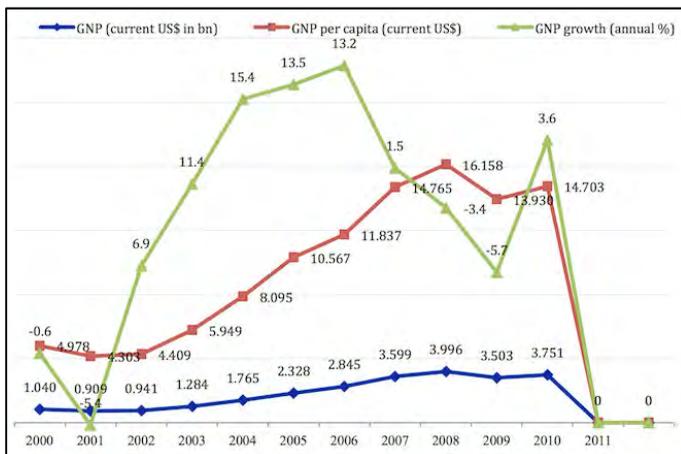


Figure 2. Coincident indicators NP of TC community. 2011 not available. Source: TRNC State Planning Organization (2013)

Lagging indicators confirm these long-term trends. The CPI (Consumer Price Index) that reflects the increasing cost of living or inflation, and unemployment rate are summarized Figure 3 for the GC community and Figure 4 for the TC. Inflation rate of the GC-community seems to follow a wave pattern characterized by a CPI peak every four to five years: CPI was above 4% in 2000, 2003, and 2008; declined to 2.0%–2.8% in between dipping to 0.5% in 2009. The GC-community ranked 75 in 2011 in the rate of inflation and 90 in 2012 (CIA 2013), indicating that the inflation rate in other countries increased more dramatically. In contrast, the inflation rate of the TC-community was much higher during the past 13 years. Between 2000 and 2012, two high-peak phases are observable: 65.5% in 2001 and a second peak with CPI above 12% from 2006 to 2008. CPI finally declined to 4.2% in 2010. The unemployment rate in the GC-community was fairly stable, between 3.3% and 5.4% during the period 2000 to 2009 then rising to reach 12.1% by 2012. The GC-community's unemployment rate ranked 91 in 2011 and 93 in 2012, as compared to the rest of the world (CIA 2013). According to the State Planning Organization of the TRNC (2013), the unemployment rate between 2000 and 2003 was moderately low with a maximum of 1.6%. Unlike the GC-community where the number of unemployed people slowly increased over time, in the TC-community, the unemployment rate dramatically rose from 1.4% to 10.0% from 2003 to 2004. Since then, the unemployment rate remains high, close to or above 10%.

As an indicator of the health of both economies, each community's public debt as a percentage of the GDP are shown in Figure 3 for the GC-community and Figure 4 for the TC-community. The GC-community's public debt was high in 2004, 2005, and 2011 (above 70% of GDP) and was expected to be even higher than 80% of GDP by 2012. It is, therefore, expected that the GC-community will have jumped from the worldwide rank 32 in 2011 to rank 27 in 2012 (CIA 2013). In the TC economy, public debt<sup>5</sup> was highest in 2002

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<sup>5</sup> For the Turkish-speaking community, data on public debt in relation to the GDP were not publicly available; therefore, public debt of the TC economy is shown here as a percentage of the GNP. Hence, the data on both economies' public debts are not directly comparable.

(above 20% of GNP) and high in the years 2000, 2001, 2003, and 2009 (above 13% of GNP). In 2007, the TC-community's public debt was at the lowest rate with less than 5% of GNP, according to the TRNC's State Planning Organization (2013).

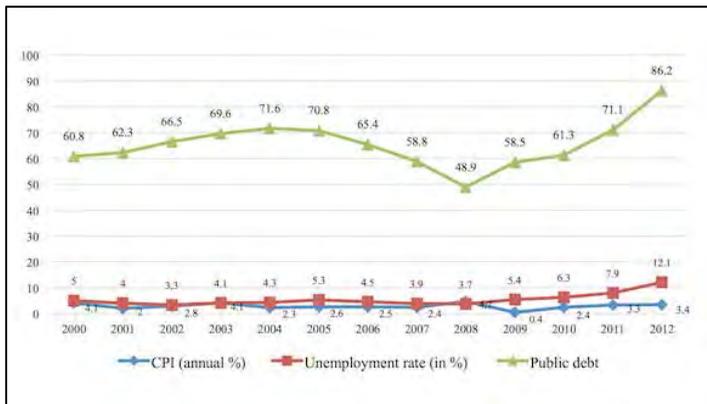


Figure 3. Lagging indicators CPI; unemployment rate; public debt of GC community (2012 – estimation). Sources: CIA (2013), International Monetary Fund (IMF) (2013), Republic of Cyprus, Statistical Service (2013), World Bank (2013)

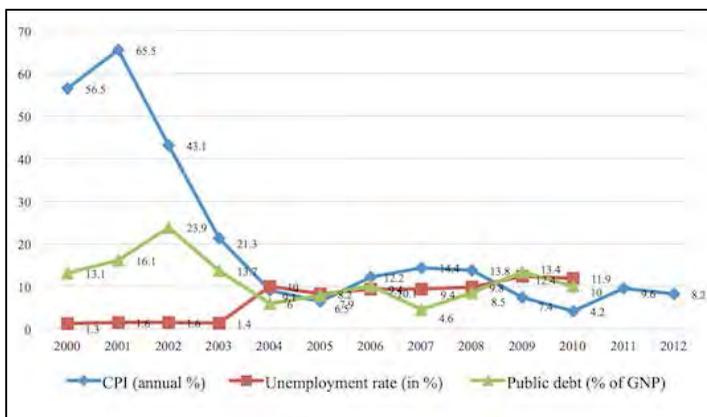


Figure 4. Lagging indicators CPI; unemployment rate; public debt of TC community. Unemployment rate (in %) Public debt (% of GNP) for 2011 and 2012 not availabl. Sources: TRNC State Planning Organization (2013)

## Trade across the Green Line

From a sociological and humanistic perspective, the Green Line, which dates back to the 1974 ceasefire line, divides the island into the Republic of Cyprus, a Greek Cypriot community in the south and the Turkish Republic of Northern Cyprus<sup>6</sup> (TRNC) a TC-community in the north. The Green Line, therefore, added another “state” border on the island. Cyprus was to join the EU as a divided island in 2004. This special circumstance created an anomaly for the EU, since the whole territory of the island is considered part of the EU, yet the *acquis communautaire*, that is, the EU’s laws and regulations, do not apply north of the Green Line, that is, in the TC-community. In the respective Council Regulation it reads, “Pending a settlement, the application of the *acquis* upon accession has therefore been suspended pursuant to Article 1(1) of Protocol No 10, in the areas of the Republic of Cyprus in which the Government of the Republic of Cyprus does not exercise effective control” (Council Regulation 2004a, p. 129). Hence, on 29 April 2004, two days before the Republic of Cyprus joined the EU, the Green Line Regulation was adopted in order for the EU to be able to also regulate the intra-island border – the Green Line – which became EU’s *de facto* external border, although it does “not constitute an external border of the EU” (Council Regulation 2004a p. 130).

The Green Line regulation comprises special rules regarding the crossing of goods, services, and persons across the intra-island border so as to protect the EU’s security with regard to illegal immigration and economic interests (Council Regulation 2004a). With respect to the trading of goods across the Green Line, the EU not only defined two permitted crossing points but also the type of goods allowed in north-south trade. Only goods wholly produced in the northern part of the island, such as raw materials or goods that underwent their last substantial process in the north, may be traded; the trade of animals and animal products is forbidden (Council Regulation 2004a). Over time, the Green Line’s legislation has been amended several times to particularly add new crossing points, for

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<sup>6</sup> Recognized only by Turkey.

example in June 2004 and in April 2005 (Council Regulation 2004b; Council Regulation 2005) and to add new products allowed for trading. Citrus fruits were added as trading goods in 2005 and potatoes were added in 2006 (Hatay et al., 2008). Moreover, in 2007, for the first time, the amendment to the Green Line Regulation allowed trade of certain animal products, namely fish, and honey (Hatay et al., 2008), on the condition that EU Food Law rules were met. Despite these early amendments, actual trade of the respective goods across the Green Line could only start several years later. For example, farmers who want to sell potatoes to the south have to use EU-certified potato seeds, thereby adding an extra burden to any potato farmer interested in intra-island trading. Regarding honey, it was not until 2013 that Turkish Cypriot beekeepers were allowed to sell their honey to the southern part of the island, because laboratory tests needed to be carried out to confirm that the sampled honey complied with EU standards on antibiotics and pesticides (European Commission 2013a). The comparison of intra-island trade, summarized in Figure 5, shows that trade has steadily increased since the adoption of the Green Line regulation in 2004.

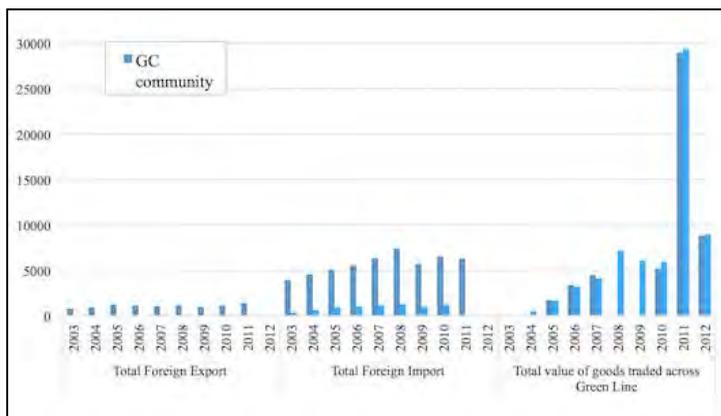


Figure 5. Foreign trade (export/import) and intra-island "tradeconversion from US\$ (24/6/2013)\*not available

<sup>1</sup> 1/5/2005–30/4/2006

<sup>2</sup> 1/5/2006–30/4/2007

<sup>3</sup> 1/5/2007–30/4/2008

<sup>4</sup>1/5–31/12/2010

Sources: European Commission (2006-2013), Republic of Cyprus (2012), Turkish Cypriot Chamber of Commerce (2013), TRNC State Planning Organization (2013)

## Method

### SDD Methodology

The Structured Dialogic Design Process (SDDP) was chosen to implement the dialogues. SDDP supports democratic and structured dialogue among a group of stakeholders, enabling integration of contributions from individuals with diverse views, backgrounds, and perspectives through a process that is structured, inclusive, and collaborative (Christakis and Bausch 2006). It is scientifically grounded on laws of cybernetics/systems science (Christakis and Bausch 2006; Laouris et al 2008; Flanagan and Christakis 2009) and is specifically designed to assist groups to deal with complex issues in reasonably limited time (Banathy 1996; Warfield and Cardenas 1994).

The authors used hybrid SDDP, i.e., a combination of virtual and face-to-face interactions, as well as synchronous and asynchronous communication (Laouris and Christakis 2007). This approach was to: (a) reduce time required to deliver reasonable and useful results, and (b) lower cost to participants and sponsors of the dialogue. An earlier version of SDDP, Interactive Management (IM), was extensively applied successfully in Cyprus between the fall of 1994 and the summer of 1995 by Benjamin Broome (1997, 1998) who facilitated workshops of the Conflict Resolution Trainers Group – a group of 32 GCs and TCs working for peace that mobilized more than 1,000 Cypriots to strive for reunification (Broome 2005; Laouris 2004).

The hybrid SDD methodology has been used in the context of the Cyprus problem (Laouris et al 2009a) by Cypriot peace pioneers in 2006 to identify factors that contribute to the increasing gap between the two communities; they identified 121 factors. Using Interpretive Structural Modeling (Warfield, 1982, 1994) they discovered as root causes: Factor #47 – The personal and financial

interests of politicians and ordinary people on both sides;  
Factor #72 – Media as puppets of political parties. The CSDP provided the formal series of bi-communal Co-Laboratories to engage business people and economists in a dialogue on the Cyprus economy.

### **Phases and Triggering Question - TQ**

According to Flanagan and Christakis (2009), a typical SDD that tackles a multifaceted problem consists of four phases: (1) vision Co-Laboratory with stakeholders actively involved in vision building; developing a shared vision map of the ideal situation; (2) *problématique* Co-Laboratory to cooperatively identify obstacles that prevent the realization of their vision; (3) action Co-Laboratory that focuses on options, solutions, and projects, which could overcome the obstacles identified in the previous phase; and (4) development of a roadmap and practical strategy as well as mobilization of additional resources in order to move forward in tackling the complex societal problem.

Twenty-one business people and economists with diverse perspectives and experiences participated in three successive bi-communal SDD Co-Laboratories on 3rd, 10th, and 27th July 2007, which represent the first three phases:

- The first took place in the GC south part of Nicosia and aimed envisioning an ideal economic future. Seventeen participants focused on the TQ: “With the aim of economic integration, what are the benefits (opportunities) for Cyprus of the free movement of goods and services within Cyprus and the EU?”
- During the second Co-Laboratory, which took place in the TC north part of Nicosia, 14 economists contributed their knowledge and experiences to answering: “With the aim of economic integration, what are the obstacles including perceived threats in achieving the free movement of goods and services within Cyprus and the EU?”
- The last Co-Laboratory took place in the buffer zone and addressed possible actions to be taken to overcome the

obstacles of the current situation, in order to reach the desired situation with respect to economic integration. Eight stakeholder representatives focused on: “With the aim of economic integration, what actions should be taken to overcome the obstacles and to reap the benefits in achieving the free movement of goods and services?”

### **Dialogue Design Team, Authors and Participants**

The authors formed the Dialogue Design Team (DDT) with local (1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, 5<sup>th</sup>, and 6<sup>th</sup>) as well as international (4<sup>th</sup>, 7<sup>th</sup>, and 8<sup>th</sup>) members. The last two authors (7<sup>th</sup> and 8<sup>th</sup>) headed the international wing of the DDT. One author (1<sup>st</sup>) was also a participant. Six authors (2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup>, 6<sup>th</sup>, and 8<sup>th</sup>) served as facilitators during sessions. The DDT remained constant and active throughout the process and supervised all activities. The participants were 21 Cypriots, of which 10 were GCs and 11 were TCs. They were chosen based on two criteria:

- Be a stakeholder i.e., economist or business expert;
- Be flexible and open-minded towards rapprochement between communities and appreciate win-win solutions to the economic aspect of the problem.

The majority of the participants did not have previous experience with the SDD methodology; only three (two TCs and one GC) were familiar with and had facilitated SDD sessions themselves. Four were female and 17 were male.

### **Indices of Spreadthink, Complexity, and Erroneous Priorities**

The following scientific measures were applied in order to allow for objective comparisons of the results of the three successive Co-Laboratories, as well as with:

- Data collected in the previous Co-Laboratory that explored obstacles of the widening gap between the two communities and revealed financial issues as one root cause (Laouris et al 2009), and

- Similar Co-Laboratories organized in 1995.

**Spreadthink** (ST) identifies the level of stakeholders' disagreement on the most important factors to a problem and is defined as  $ST = (V - 5)/(N - 5) \times 100$  (Warfield 1995). The average level of disagreement is 40% (Warfield 1995).

The **Situational Complexity Index** (SCI) demonstrates the degree of complexity of a problem situation and is defined as  $SCI = DK(N - 7)/R(R - 1)$  (Christakis and Bausch 2006), with

$$D = (V - 5)/(N - 5)$$

V=Ideas receiving  $\geq 1$  votes

N=Ideas generated

K=Connections in the map

R=Ideas in the map

The **Erroneous Priorities Effect** (EPE) refers to the fact that individual preferences may be "erroneous" if individuals vote for the most important ideas relevant to the problem situation prior to a relational inquiry among the ideas during the structuring phase of SDD. During SDD some of the ideas may collectively be judged to not be the most influential (and Conaway 1999). The EPE is demonstrated by comparing the cumulative influence of the most influential ideas with the influence of ideas that received most votes.

## Results

The results stem from three Co-Laboratories (vision, obstacles, actions) with synchronous face-to-face and asynchronous virtual interactions (Laouris et al 2007), which took place between 17 May and 15 October 2007. The sequence of events, their purposes, length of time invested in each event, as well as the type of communication (synchronous/face-to-face or asynchronous/virtual) used is documented in Appendix 1. The whole process was conducted during 15.5 hours, spread over 2 ½ months, with 11 hours of three face-to-face events. The total

person-hours invested exceeded 325 hours. The following subsections report separately each Co-Laboratory.

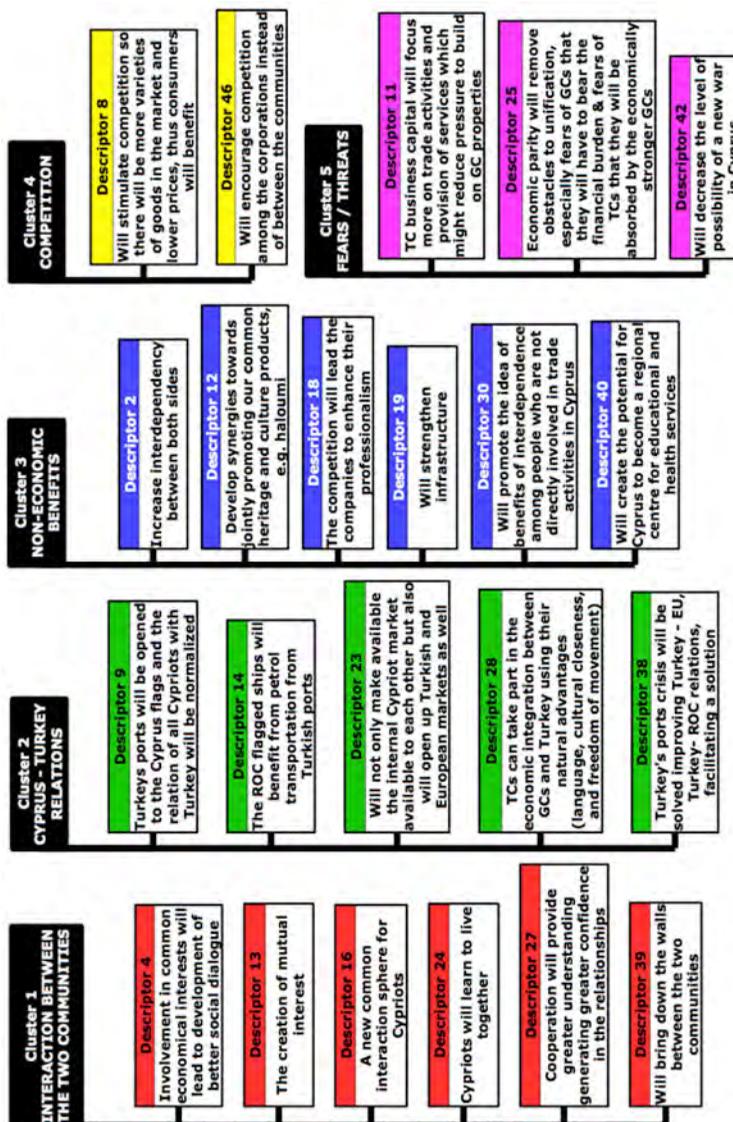
## **Vision Co-Laboratory**

The first Co-Laboratory was dedicated to jointly visualizing and describing a future, ideal, desired situation with respect to economic integration and free movement of goods and services within Cyprus and the EU. The participants identified 47 descriptors in response to the TQ: “With the aim of economic integration, what are the benefits (opportunities) for Cyprus of the free movement of goods and services within Cyprus and the EU?” They spent two hours clarifying their proposals. These clarifications, however, are not provided in this paper; only the “headings” of the participants’ descriptors have been listed.

After the first Co-Laboratory session, members of the DDT clustered the 47 descriptors into 10 categories based on common attributes among the descriptors. The clusters covered not only economic issues, but also more general topics (Figure 6). Following this phase, the clusters were sent to all participants via email, and participants were requested to study and choose their favorite five. Thus, 29 of the 47 descriptors, proposed as potential benefits and opportunities for Cyprus of the free movement of goods and services, received one or more votes by all participants during the voting phase (Table 1). The ST was 57%, that is, the level of disagreement among the participants is higher than the expected average of 40% (Warfield 1995). Despite the rather high level of disagreement concerning descriptors of economic integration in general, there appears to be significant agreement regarding the three most voted descriptors, #4, #27, and #25. Of the 17 participants, 41% voted for #4, 35% voted for #27, and 29% voted for #25. However, the EPE demonstrates that following a collective consideration of the influences that one descriptor exerts on another, the participants change their minds regarding the importance of each descriptor (Dye and Conaway 1999).

Time constraints did not allow the participants to complete the process of examining descriptors’ influences on each other. Therefore, no influence tree was produced. This Co-Laboratory

mainly served to establish a common framework of thinking, by helping the participants transcend their thinking into the future, and therefore prepare them for the next two phases.



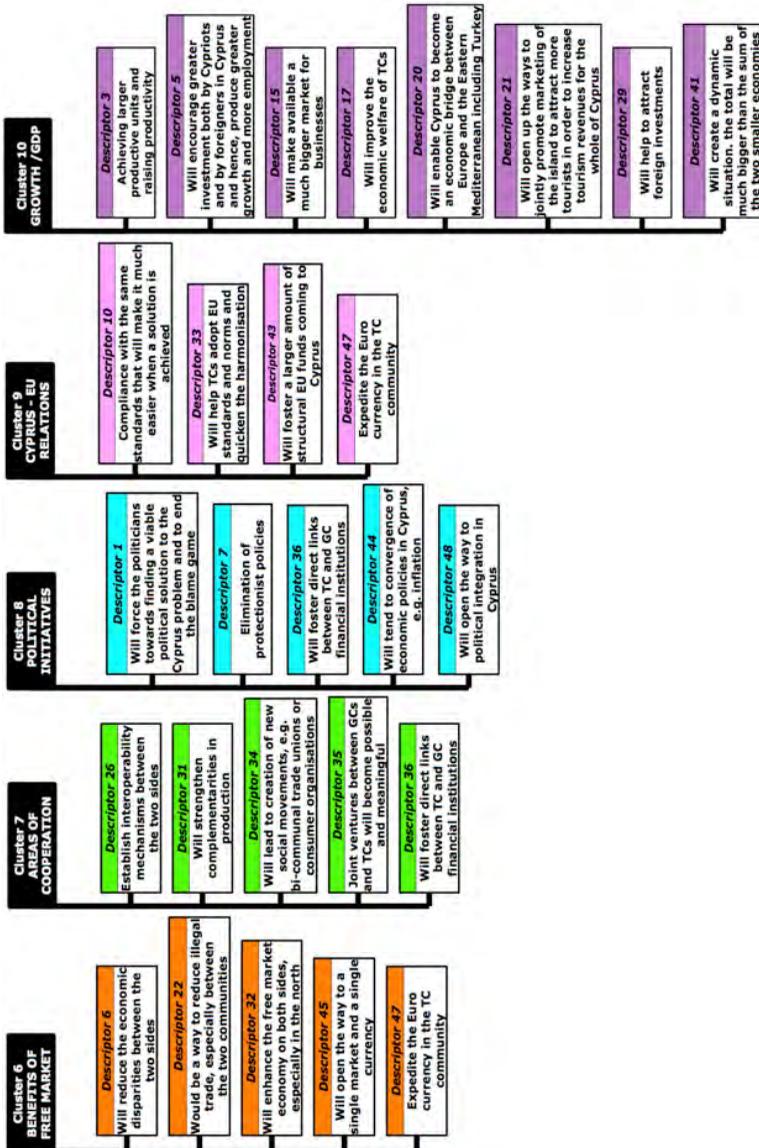


Figure 6. Categorization of 47 descriptors of the Vision Co-Laboratory into 10 clusters.

#	Votes	Benefits/Opportunities
4	7	Involvement in common economic interests will lead to development of better social dialogue
27	6	Cooperation will provide greater understanding, generating greater confidence in relationships
25	5	Economic parity will remove obstacles to unification, especially fears of GCs that they will have to bear the financial burden & fears of TCs that they will be absorbed by the economically stronger GCs
20	4	Will enable Cyprus to become an economic bridge between Europe and the Eastern Mediterranean including Turkey
6	3	Will reduce the economic disparities between the two sides
28	3	TCs can take part in the economic integration between GCs and Turkey using their natural advantages (language, cultural closeness & freedom of movement)
2	2	Increase interdependency between both sides
8	2	Will stimulate competition so there will be more varieties of goods in the market and lower prices, thus consumers will benefit
9	2	Turkey's ports will be opened to Cyprus flags and the relations of all Cypriots with Turkey will be normalized
10	2	Compliance with the same standards that will make it much easier when a solution is achieved
16	2	A new common interaction sphere for Cypriots
17	2	Will improve the economic welfare of TCs
23	2	Will not only make the internal Cypriot market available to Turkey, but will also open up Turkish and other European markets
24	2	Cypriots will learn to live together
32	2	Will enhance the free market economy on both sides, especially in the north
34	2	Will lead to creation of new social movements, e.g. bi-communal trade unions or consumer organizations
3	1	Achieving larger productive units and raising productivity
5	1	Will encourage greater investment both by Cypriots and by foreigners in Cyprus and hence, produce greater growth and more employment
11	1	TC business capital will focus more on trade activities and provision of services which might reduce pressure to build on GC properties
12	1	Develop synergies towards jointly promoting our common heritage and culture products, e.g. haloumi
18	1	The competition will lead the companies to enhance their professionalism
22	1	Would be a way to reduce illegal trade, especially between the two communities
26	1	Establish interoperability mechanisms between the two sides
29	1	Will help to attract foreign investments
31	1	Will strengthen complementarities in production
35	1	Joint ventures between GCs and TCs will become possible and meaningful
38	1	Will bring down the walls between the two communities
41	1	Will decrease the level of possibility of a new war in Cyprus
43	1	Will tend to convergence economic policies in Cyprus, e.g. inflation

*Table 1. List of 29 descriptors of the Vision Co-Laboratory that received  $\geq 1$  votes. A few syntactical errors of the original statements have been corrected to improve readability.*

## Obstacles Co-Laboratory

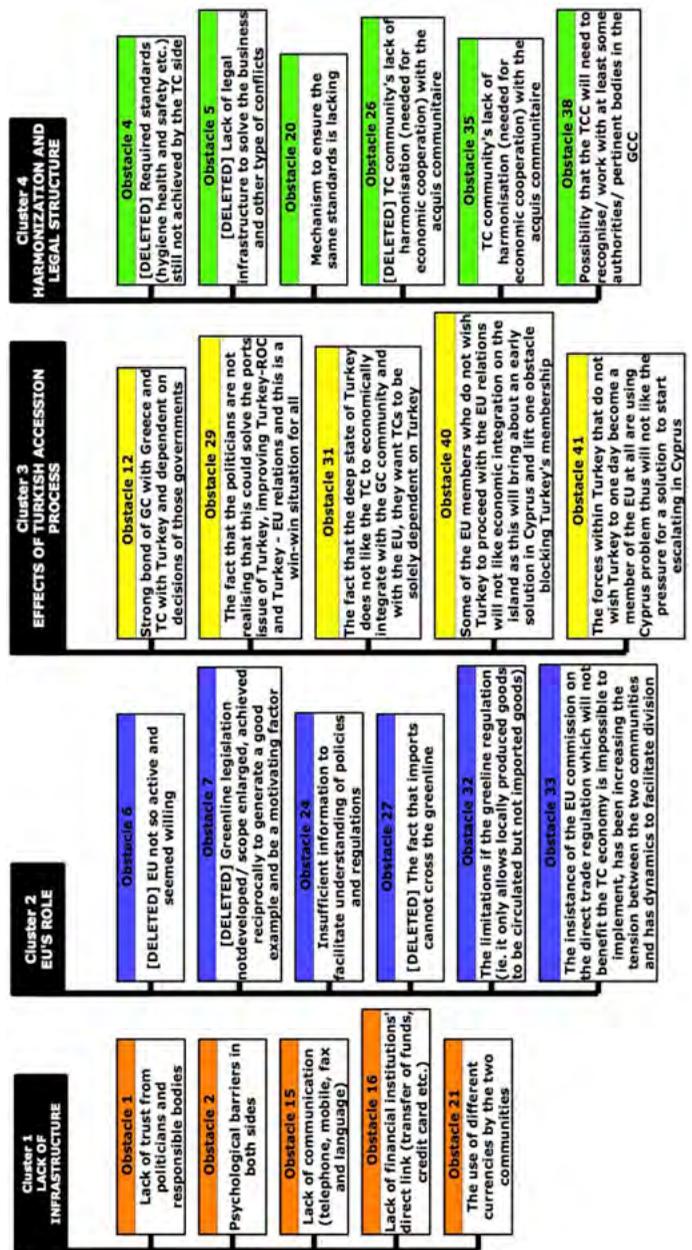
The second Co-Laboratory aimed at identifying the obstacles and perceived threats in the current situation, which would hamper the achievement of the envisioned economic integration and free movement of goods and services within Cyprus and the EU.

Via both virtual and face-to-face encounters, the stakeholder representatives identified 60 of these obstacles and perceived threats while responding to the following TQ: "With the aim of economic integration, what are the obstacles including perceived threats in achieving the free movement of goods and services within Cyprus and the EU?" In this case, 31 of the 60 factors received one or more votes (Table 2). The participants spent two hours clarifying their factors during the face-to-face meeting.

After the physical meeting, members of the DDT clustered the 60 factors into 11 categories, based on common attributes among the factors identified by the stakeholder representatives. The clusters covered a wide range of topics, including economic, political, and even psychological issues (Figure 7). The participants voted for their five most important factors. The voting results were used to select obstacles/perceived threats for the subsequent structuring phase, in order to identify interrelations among the generated factors. In the optimal case, all factors receiving votes must be structured. With 31 of 60 factors receiving votes, ST was 47%. Nevertheless, in this case too, there seems to be a significant level of agreement regarding the three obstacles that received the most votes, that is, #35, #45, and #31. Obstacles #35 and #45 got 36% votes each. However, it is unclear whether the same five participants or ten different participants voted for these two obstacles. The third obstacle, #31, got 29% of the votes. In sum, approximately a third of the economists and business experts who participated in the Obstacles Co-Laboratory agreed upon the most important obstacles and perceived threats of the current situation of economic integration within Cyprus. Referring to EPE, it is again worthwhile to mention possible changes of participants' perceptions related to the importance of obstacles after collaborative exploration.

#	Votes	Obstacles/Perceived Threats
35	5	TC community's lack of harmonization (needed for economic cooperation) with the <i>acquis communautaire</i>
45	5	Lack of economic desperation thus lack of motivation on the GC side to handle the burden of the TC economy on the way to greater benefits of a solution in the future
31	4	The fact that the deep state of Turkey does not like the TC to economically integrate with the GC community and with the EU, they want TCs to be solely dependent on Turkey
1	3	Lack of trust from politicians and responsible bodies
2	3	Psychological barriers on both sides
30	3	Unless the issue of points of entry in north Cyprus is solved without triggering recognition issue, free movement of goods cannot be achieved
32	3	The limitations of the Green Line regulation (i.e. it only allows locally produced goods to be circulated but not imported goods)
42	3	Most of the political elite in both communities, who do not know how to survive without the Cyprus problem, will try to block the way for economic integration so that a long-term solution cannot be found
48	3	Turkey will not accept surrendering the control of ports to the EU, since this would hamper the movement of the Turkish army
12	2	Strong bond of GC with Greece and TC with Turkey and dependence on decisions of those governments
15	2	Lack of communication (telephone, mobile, fax and language)
16	2	Lack of financial institutions' direct link (transfer of funds, credit card etc.)
19	2	Absence of a political settlement
24	2	Insufficient information to facilitate understanding of policies and regulations
33	2	The direct trade regulation, which the EU Commission insists on, will not benefit the TC economy and is impossible to implement. This regulation has been increasing the tension between the two communities and has the potential to facilitate division.
40	2	Some of the EU members who do not wish Turkey to proceed with the EU relations will not like economic integration on the island as this will bring about an early solution in Cyprus and lift one obstacle blocking Turkey's membership
43	2	Fear of being economically absorbed by the richer GC economy on the TC side
56	2	The discouraging approach of the GOC toward the trade from the north
5	1	Lack of legal infrastructure to solve business and other types of conflicts
14	1	Lack of trust between the two sides
21	1	The use of different currencies by the two communities
25	1	Lack of promotion by political leadership of both GC and TC
28	1	The problem of political recognition and international trade
29	1	The fact that politicians are not realizing that this could solve the ports issue of Turkey, improving Turkey-ROC and Turkey - EU relations and this is a win-win situation for all
39	1	People in Cyprus, who reap economic benefits from the status quo, will create obstacles
41	1	Forces within Turkey that do not wish Turkey to one day become a member of the EU are using the Cyprus problem, will not like pressure for solution to start escalating in Cyprus
44	1	Lack of many pioneers to lead the integration amongst the communities due to the fear of being excluded in their own communities
50	1	The TC leadership may refuse to allow EU supervision of ports because they remain loyal to the thesis that these ports should be 'under the control of TRNC custom authorities'
51	1	The problem of GC properties in the north, and how these will be economically utilized within the context of a free trade area, remains unresolved
54	1	Reluctance of GCs to accept TCs as their business partners due to lack of any motivation
57	1	The Turkish government's reluctance to accept the EU's proposal for a free trade area

*Table 2. List of 31 Obstacles that received ≥1 votes. A few syntactical errors of the original statements have been corrected to improve readability.*



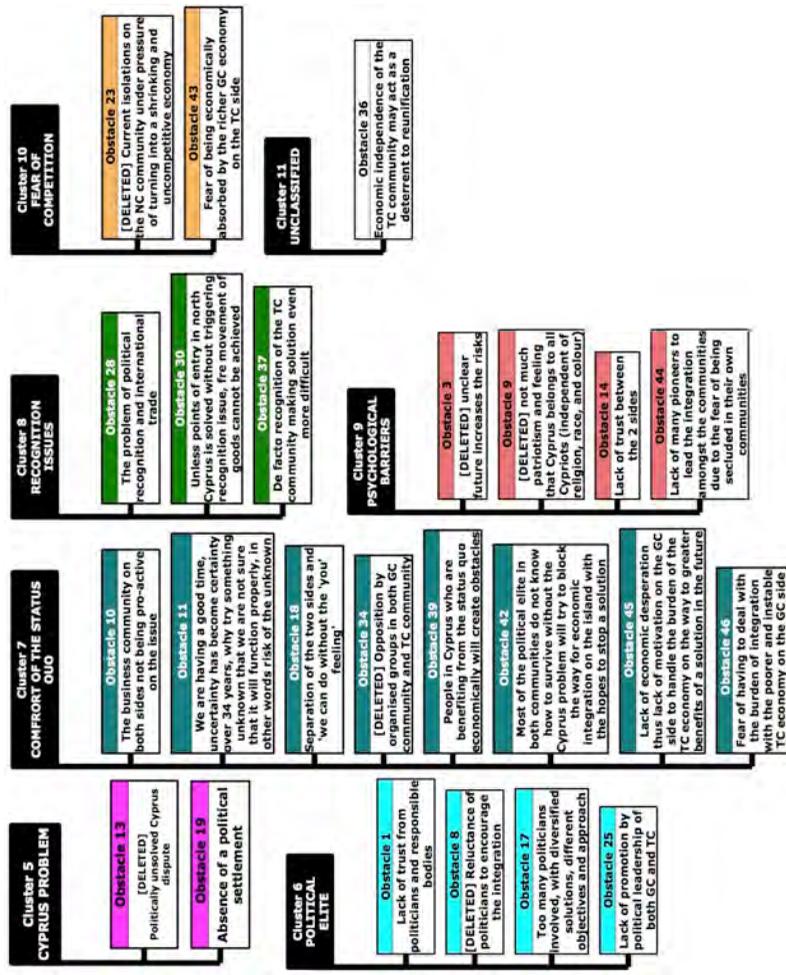


Figure 7. Categorization of 60 Obstacles into 11 clusters

The term “DELETED” in the boxes denotes that its author decided that it was not relevant, because its content was covered in another stakeholder’s idea. Occasionally, two authors combined their ideas into one, and the other is marked as *deleted*.

During the synchronous face-to-face structuring phase, the experts structured almost all obstacles that received  $\geq 2$  votes; specifically,

16 factors within six layers, into the root cause map (Figure 8). The SCI was 8.89.

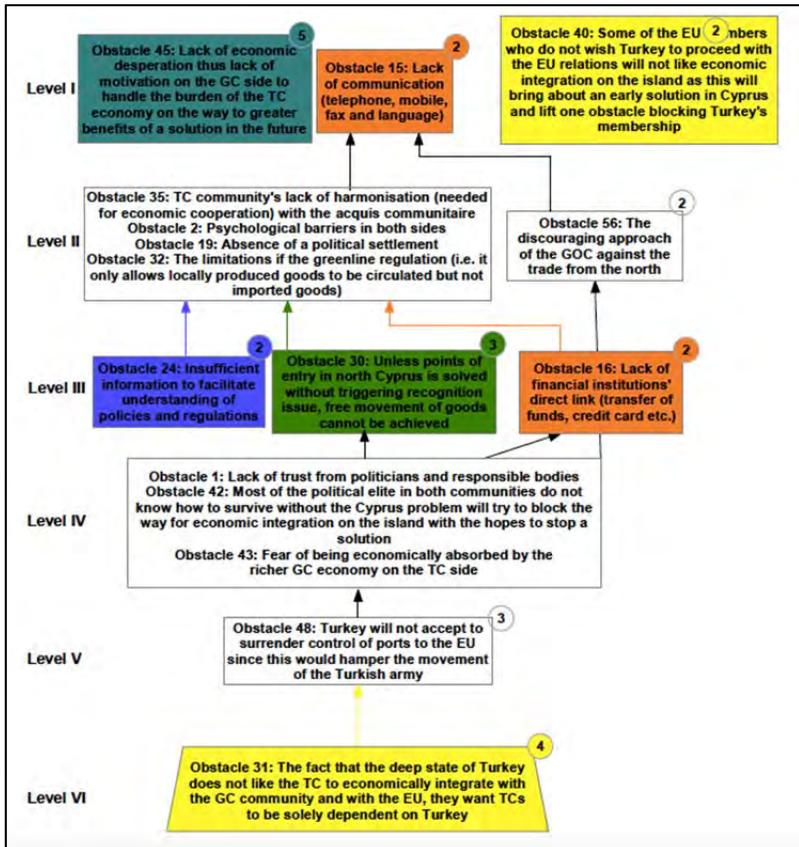


Figure 8. Root cause map of the Obstacles Co-Laboratory

The map contains 16 factors structured in six layers. Obstacle #31 appears to be the most influential, i.e., the root obstacle, as it is located at the root of the tree.

Obstacles that are in cycle in the same box mutually influence each other.

The number of votes each obstacle received is provided in order to illustrate the EPE, which predicts that ideas receiving more votes

do not always end up at the root of the tree (Dye 1999; Dye and Conaway 1999).

### **Action Co-Laboratory**

During the final Co-Laboratory, the participants proposed actions to achieve economic integration. These actions would overcome the previously identified obstacles and perceived threats, so as to reach the desired situation. A smaller group of representative stakeholders responded to the following TQ and proposed 27 actions (Table 3): “With the aim of economic integration, what actions should be taken to overcome the obstacles and to reap the benefits in achieving the free movement of goods and services?”

#	Votes	Benefits/Opportunities
4	7	Involvement in common economic interests will lead to development of better social dialogue
27	6	Cooperation will provide greater understanding, generating greater confidence in relationships
25	5	Economic parity will remove obstacles to unification, especially fears of GCs that they will have to bear the financial burden & fears of TCs that they will be absorbed by the economically stronger GCs
20	4	Will enable Cyprus to become an economic bridge between Europe and the Eastern Mediterranean including Turkey
6	3	Will reduce the economic disparities between the two sides
28	3	TCs can take part in the economic integration between GCs and Turkey using their natural advantages (language, cultural closeness & freedom of movement)
2	2	Increase interdependency between both sides
8	2	Will stimulate competition so there will be more varieties of goods in the market and lower prices, thus consumers will benefit
9	2	Turkey's ports will be opened to Cyprus flags and the relations of all Cypriots with Turkey will be normalized
10	2	Compliance with the same standards that will make it much easier when a solution is achieved
16	2	A new common interaction sphere for Cypriots
17	2	Will improve the economic welfare of TCs
23	2	Will not only make the internal Cypriot market available to Turkey, but will also open up Turkish and other European markets
24	2	Cypriots will learn to live together
32	2	Will enhance the free market economy on both sides, especially in the north
34	2	Will lead to creation of new social movements, e.g. bi-communal trade unions or consumer organizations
3	1	Achieving larger productive units and raising productivity
5	1	Will encourage greater investment both by Cypriots and by foreigners in Cyprus and hence, produce greater growth and more employment
11	1	TC business capital will focus more on trade activities and provision of services which might reduce pressure to build on GC properties
12	1	Develop synergies towards jointly promoting our common heritage and culture products, e.g. haloumi
18	1	The competition will lead the companies to enhance their professionalism
22	1	Would be a way to reduce illegal trade, especially between the two communities
26	1	Establish interoperability mechanisms between the two sides
29	1	Will help to attract foreign investments
31	1	Will strengthen complementarities in production
35	1	Joint ventures between GCs and TCs will become possible and meaningful
38	1	Will bring down the walls between the two communities
41	1	Will decrease the level of possibility of a new war in Cyprus
43	1	Will tend to convergence economic policies in Cyprus, e.g. inflation

*Table 3. Documentation of 27 actions. A few syntactical errors of the original statements have been corrected to improve readability*

After the Co-Laboratory, members of the DDT clustered the 27 actions into 4 categories that cover action areas toward Turkey, the EU/UN, local leaders, and businesspeople (Figure 9).

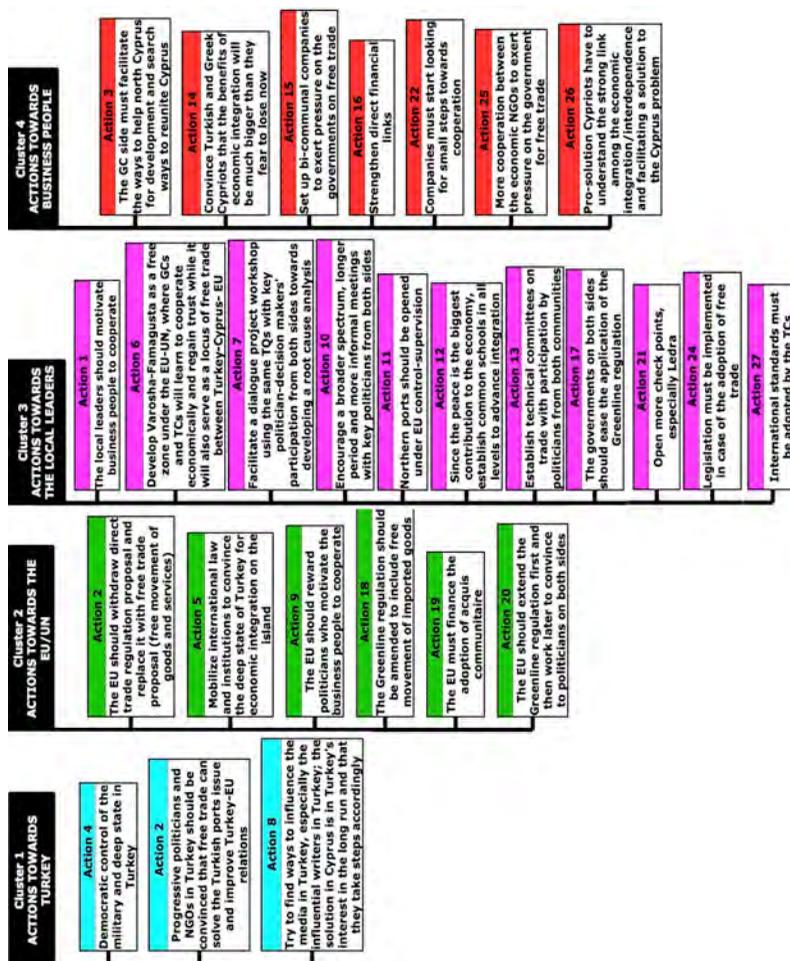


Figure 9. Categorization of 27 actions into 4 clusters

During a follow-up meeting, eight committed stakeholder representatives outlined projects based on the proposed actions: One project idea focused on action #4, "Democratic control of the military and deep state in Turkey." The aim is to persuade the EU to actively and directly pursue the control of the military by a democratic process in the EU accession negotiations. This could be achieved by placing the military under the ministry of defence,

conducting in-depth research, and collecting information on the democratic control of the military, and lobbying within the EU with the respective research results. Another project tackled action #8, “Try to find ways to influence the media in Turkey, especially the influential writers in Turkey; the solution in Cyprus is in Turkey’s interest in the long run, and that they take steps accordingly.”

## **Discussion**

### **Vision Co-Laboratory**

The participants were engaged in this first dialogue with the aim to bring them to a point where they were ready to trust each other and speak openly. A possible weakness might be that this Co-Laboratory was not fully implemented, because the participants did not create a map of influences encompassing their various “visions” of an ideal future situation. Besides overall time constraints, the mapping phase was skipped mainly because the individuals were selected to participate based on the criterion that they share the vision of a united economy in Cyprus.

### **Reflecting on the Breadth and Depth of Descriptors**

The participants came up with 47 descriptors that portray the ideal economic situation in Cyprus. The number is relatively low, compared to analogous Co-Laboratories for similar dialogues that took place in 1995, 2006, and 2007 (see Laouris et al 2009 for a detailed comparison). However, the Co-Laboratory discussed here is the only vision Co-Laboratory, whereas the previous were either obstacles or action Co-Laboratories. Therefore, the results either seem to confirm that the participants of this Co-Laboratory did already share a common vision beforehand, as assumed by the authors. Alternatively, the results indicate that stakeholders of a specific problem in general identify more obstacles and/or solutions than visions.

The descriptors were clustered into 10 categories. These categories covered topics not only related to the economy, such as competition, benefits of free market, areas of cooperation, and

growth/GDP, but also topics related to the Cyprus issue in general, such as interaction between the two communities, Cyprus-Turkey relations, Cyprus-EU relations, political initiatives, non-economic benefits, and fears/threats. The number of categories generated is similar to the number generated in previous similar Cyprus-related Co-Laboratories, which had 10, 9, 20, and 13 categories respectively (for detailed comparisons, refer to Laouris et al 2009).

### **Reflecting on the Participants' Level of Agreement**

With an ST of 57%, the level of disagreement among participants is rather high, especially when one considers that the participants should have had similar political views owing to their selection based on the criterion of being pro-solution. Hence, the participants' views on the economic vision of Cyprus are widely divergent. As compared to previous SDD bi-communal Co-Laboratories, the results suggest that the level of disagreement among Cypriots regarding an understanding of the future aspects of the Cyprus issue has not been reduced. On the contrary, it remains high or tends to increase, which demonstrates that the gap between the two communities is not closing, but is expanding. For example, bi-communal groups engaged in structured democratic dialogues about options to peace building in 1995 came up with an ST equal to 29.8% for GCs and 28% for TCs. The two recent bi-communal SDD Co-Laboratories, "Peace Process Revival" in 2006 and "Options to Dialogue" in 2007, had an ST 47% and 50%, respectively (Laouris et al 2009a; Laouris et al 2009b). The results of the Co-Laboratory reported here are thus in line with previous findings in the context of the "Civil Society Dialogue" project (Laouris et al 2009a, p. 56).

Overall, the authors believe that the first phase of the project served its purpose of aligning visions and goals in the minds of the participants and of preparing them to discuss the *problématique*.

### **Obstacles Co-Laboratory**

The second Co-Laboratory focused on the obstacles currently impeding the translation of the participants' vision into reality. In

line with the SDD application, the participants identified all obstructions, categorized these according to their common attributes, individually chose the five subjectively most important obstacles, and collectively investigated the influences that the obstructions exert on each other. In other words, the Obstacles Co-Laboratory implemented all phases of the SDD methodology.

### *Reflecting on the Breadth and Depth of Obstacles*

During the first phase, the participants came up with 60 factors as barriers to the previously identified vision. As compared to analogous Co-Laboratories on the Cyprus issue, the number of factors is similar. For example, in two comparable Co-Laboratories that took place separately for the two communities of Cyprus in 1994 with a similar TQ and a similar composition of participants, the number of obstacles generated was 67 for GCs and 87 for TCs (Laouris et al 2009a). During a third Co-Laboratory in 2006 on “factors contributing to the perceived widening gap between the two divided communities in Cyprus” (Laouris et al 2009a, p. 45), peace pioneers and activists from both communities identified 120 obstacles in all. It seems rational that more obstacles were identified when focusing on the Cyprus issue as a whole, rather than focusing on a specific sub-topic such as the economic situation. The average number of obstacles adequately describing a social complex problem is 64 (Warfield 1988, 2009). Thus, the number of obstacles generated in this Co-Laboratory is considered as average.

The obstacles were clustered into 11 categories. The categories covered a wide range of topics from economic (e.g., lack of infrastructure, fear of competition, harmonization, and legal structure), political (e.g., EU’s role, effects of the Turkish accession process, the Cyprus problem, political elite, and recognition issues), and psychological issues (e.g., comfort of the status quo, psychological barriers), all of which are obstacles to economic integration. The number of clusters is also comparable to the number of clusters generated in the two similar Co-Laboratories in 1994, where GCs categorized their factors into 10 clusters whereas

TCs categorized their factors into 9 clusters (for detailed comparisons, refer to Laouris et al 2009a/b).

Co-Laboratory	Year	N no. of factors generated	No. of clusters	V no. of factors with >1 votes	R no. of factors structured	No. of Levels in map	SCI	ST (%)
Barriers to peace-building efforts (GCs)	1994	67	10	n/a	22	7	4.1	27.4
Barriers to peace-building efforts (TCs)	1994	87	9	n/a	36	6	9.3	37.8
Peace Process Revival	2006	120	20	47	20	7	17.5	47
Obstacles to Economic Integration	2007	60	11	31	16	6	8.89	47

Table 4. Comparison of scientific descriptors of different Obstacles Co-Laboratories related to the Cyprus issue

### **Reflecting on the Participants' Level of Agreement**

With a Spreadthink (ST) of 47%, the level of participants' disagreement was slightly higher than the expected average of 40% (Warfield 1995). In Warfield's words, the participants' views of the *problématique* of Cyprus' economic integration are "spread all over the map" (Warfield 1995, p. 5). It is interesting that in analogous SDD settings in 1994, the ST was much lower with 27.4% and 37.8% for GCs and TCs, respectively (Table 4: Laouris et al 2009). For the "Peace Process Revival" Co-Laboratory in 2006, the ST was also 47% (Table 4: Laouris et al 2009). Thus, 20 years earlier, agreement among participants was much higher for both communities. The fact that the ST of the more current Co-Laboratories (both this and the one in 2006) is higher than of similar Co-Laboratories in 1994 should alarm us. Nowadays, the participants have a greater degree of disagreement than in the past. This is especially worrying if one also takes into account that the participants of the Co-Laboratory described here were a relatively homogeneous group of business experts and economists.

### *Reflecting on Complexity and Erroneous Priority Effect*

With a Situational Complexity Index (SCI) of 8.89, the complexity degree of the problem as perceived by the participants is comparable to previous Co-Laboratories; the SCI in 1994 was 4.1 for GCs and 9.3 for TCs (Table 4). Therefore, SCI seems not to have changed since 1994; that is, stakeholders' perception of the complexity of the Cyprus issue and its related aspects has neither decreased nor increased over time.

During the voting phase, two obstacles received the most votes with five votes each: obstacles #35 and #45 (Table 4). That means that the participants individually perceived these two obstacles as the most relevant to the problem, before they collectively inquired on the relations between the obstacles. During the structuring phase, these two obstacles, however, ended up in the top two layers (Level I and Level II) of the root cause map (Figure 7). That means the participants collectively judged these two obstacles to not be the most important or influential. This is a typical demonstration of EPE (Dye and Conaway 1999). If the participants were to collectively agree on a root cause map based on the number of votes the obstacles received before the structuring phase, they would have chosen obstacles #35 and #45 as the root-cause drivers, which would have then ended up in the bottom layer of the map. Yet, the participants collectively decided that the obstacles #31 and #48 with four and three votes, respectively, were the most influential.

## **The Root Cause Map**

As a result of the structuring phase, the root cause map illustrates not only various influential levels, but also the influences that the obstacles exert on each other. The obstacles are thus related to each other according to their direction of influence. Those obstacles that appear lower in the root cause map, and are hence positioned at the root of the tree, that is, Level VI, are the most influential in terms of the power to bring about change than those at higher levels, and are the ones to tackle preferentially.

## Root Causes and Influences

The dominating root cause in the deepest Level VI that influences most of the other obstacles structured is:

*Obstacle #31 "The fact that the deep state of Turkey does not like the TC to economically integrate with the GC community and with the EU; they want TCs to be solely dependent on Turkey"*

Level V is also dominated by only one obstacle:

*Obstacle #48: "Turkey will not accept surrendering the control of ports to the EU, since this would hamper the movement of the Turkish army"*

Level IV is rich with obstacles:

*Obstacle #1: "Lack of trust from politicians and responsible bodies"*

*Obstacle #42: "Most of the political elite in both communities, who do not know how to survive without the Cyprus problem, will try to block the way for economic integration on the island so that a long-term solution cannot be found"*

*Obstacle #43: "Fear of being economically absorbed by the richer GC economy on the TC side"*

At Level III, one obstacle is not "connected" to any other obstacles in the map, that is, this particular obstacle is not being influenced by, nor is it influencing other obstacles. If the participants were given more time to structure the map, it is most likely that interrelations and influences of this unconnected obstacle to others were discovered.

*Obstacle #24: "Insufficient information to facilitate understanding of policies and regulations"*

## Reflecting on the Obstacles at the Top Level

Obstacles at the top of the root cause tree are usually obviously important, but less influential. In total, three obstacles made it to the top level, of which two remained unconnected.

*Obstacle #15: "Lack of communication (telephone, mobile, fax and language)"*

*Obstacle #40: "Some of the EU members who do not wish Turkey to proceed with the EU relations will not like economic*

*integration on the island as this will bring about an early solution in Cyprus and lift one obstacle blocking Turkey's membership"*

*Obstacle #45: "Lack of economic desperation, thus lack of motivation, on the GC side to handle the burden of the TC economy on the way to greater benefits of a solution in the future"*

During the voting phase, obstacle #45 ranked first, along with another obstacle, in terms of number of votes received; five votes (Table 2). Although this obstacle received the most votes, it turned out not to be the most influential when collectively judged during the structuring phase. This fact demonstrates the EPE.

### **Actions Co-Laboratory**

The participants collected 27 action options that might help overcome the *problématique*. The number is lower than the number of identified vision descriptors and obstacles reported above. It is also much lower compared to the analogous Co-Laboratory, "Options to Dialogue" of 2007, where 83 actions were generated (Laouris et al 2009). Similar to the results of the Co-Laboratory series of 2006 and 2007, it seems that stakeholders are able to identify more obstacles than solutions. This interpretation does not apply to the Co-Laboratory series in 1994–1995, where both GCs and TCs separately generated more action options than obstacles (Table 5).

Co-Laboratory	Year	N no. of factors generated	No. of clusters	V no. of factors with >1 votes	R no. of factors structured	No. of Levels in map	SCI	ST (%)
Options to peace-building (GCs)	1995	72	10	25	25	9	7.11	30
Options to peace-building (TCs)	1995	101	9	36	36	11	10.6	28
Options to Dialogue	2007	83	13	44	27	7	10.88	50
Options to Economic Integration	2007	27	4	---	---	---	---	---

*Table 5. Comparison of scientific descriptors of different Action Co-Laboratories related to the Cyprus issue*

The solutions were clustered into 4 categories. These covered a wide spectrum of topics from very specific to rather general: business experts, local leaders, Turkey, the EU, and the UN. In comparison to the other categories, the category targeting local leaders contains by far the highest number of generated actions. The number of categories generated is also lower as compared to the number of created categories in the other Co-Laboratories on economic integration, as well as compared to the “Options to Dialogue” Co-Laboratory (Table 5; Laouris et al 2009). The lower number is not surprising, because a lower number of generated ideas will most likely be clustered into fewer categories.

An effective and realistic action plan needs to first deal with the identified root causes of the root cause map in order to reach the desired situation, that is, the idealized vision. With the assistance of SDD, economists and business experts have mutually agreed that the main cause preventing the two communities reaching the idealized vision is obstacle #31: “The fact that the deep state of Turkey does not wish the TC to economically integrate with the GC community and with the EU; they want TCs to be solely dependent on Turkey” (Figure 8). Here, within the methodology’s limits and with careful assessment, one can choose to tradeoff between the most yielding and the most influential factor to be tackled. It is argued that obstacle #31 is rather difficult to tackle with the available tools. This is not at all surprising, because this root obstacle is an external factor. Nevertheless, during a follow-up meeting to the action Co-Laboratory, stakeholder representatives drafted several projects that focus on the external factor, Turkey, as described in paragraph 3.3.

Overall, the authors believe that this last phase of the project served as a starting point for actual change toward economic integration in Cyprus by putting the proposed projects into practice.

## **The Road Ahead**

Fresh hopes for unity on the island were evolving following the election of Demetris Christofias as new President of the Republic

of Cyprus (February 24, 2008); the re-opening of Ledra Street/Lokmacı crossing in the heart of old Nicosia on April 3, 2008; as well as the beginning of peace talks between the Mr. Christofias and TC leader Mehmet Ali Talat (BBC News 2008; Christou 2008a, 2008b; Hughes 2008; International Herald Tribune 2008; Morgan 2008). Unfortunately, by the time this paper was prepared, the five-year Christofias presidency had passed without any tangible progress. On the contrary, the division has been consolidated further and nationalism on both sides has increased. The recent election of Mr. Nicos Anastasiades (28/2/2013), leader of DISY party who actively supported a solution, in connection with the recent election of Mr. Mustafa Akıncı (19/4/2015) might offer new opportunities.

Since 2007, when the project was implemented, both civil society and international bodies have made progress in addressing some root causes: (1) Establishment of the Cyprus Community Media Centre (2009), the Cyprus Island-wide NGO Development Platform (2009) and Youth Power (2009) as joint ventures between NGOs from both sides of the Green Line created ample opportunities for cooperation; (2) Two new funding schemes for bi-communal projects, one by Stelios Hadjioannou (Stelios Award for Business Co-operation in Cyprus 2011), and the other by the EEA Grants and Norway Grants (2004), offer prospects for practical partnerships; (3) The Jumpstart the Peace (2011) program (analogous to the one documented in this paper) and the fact that Cypriot peace builders implement peace projects in the Middle East (Civil Society Acts Beyond Borders 2009) create the space for engagement of civil society and for the refinement of methodologies developed over the past two decades.

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## Appendix 1 – Calendar of milestones

Date	Event	Details about event	t (min)	Type
3 July 2007	Generation & clarification of descriptors	17 economists and business experts contributed 47 descriptors.	180	f-2-f
4 July 2007	Clustering	Members of the KMT who are considered knowledgeable of the situation met to cluster the descriptors into categories and name these categories. They clustered the 47 descriptors into 10 categories.	90	f-2-f
9 July 2007	Voting request	The table with all 47 descriptors as well as the cluster with its 10 categories was sent to all participants. They were requested to study and choose their favorite five descriptors. Their voting was to arrive by 9 July 2007.	10	Virtual
9 July 2007	Recording of voting results	One member of the facilitation team entered the votes in the Cogniscope™ software and prepared a table with the voting results that was sent to all participants.	10	N/A
10 July 2007	Generation of obstacles	22 economists and business experts received the triggering question for the second co-laboratory 'current situation'. They were requested to send their responses to the triggering question by July 10 2007 noontime.	10	Virtual
10 July 2007	Recording of obstacles	One member of the facilitation team entered the obstacles generated and sent these via email to the participants.	60	N/A
10 July 2007	Clarification and adding of obstacles	14 economists and business experts contributed 60 obstacles that were clarified by the authors. The participants individually voted their five most important obstacles. The voting results were entered in Cogniscope™.	120	f-2-f
14 July 2007	Clustering	Members of the KMT who are knowledgeable of the Cypriot economic situation met to cluster the obstacles into categories and name these categories. They clustered the 60 obstacles into 11 categories.	90	f-2-f
17 July 2007	Structuring	8 economists and business experts went through the structuring phase to identify the inter-relations among the obstacles generated; they created the root cause map.	90	f-2-f
17 July 2007	Generation and clarification of actions	The same 8 economists and business experts generated and clarified possible actions that can be taken to overcome the obstacles in order to reach the desired situation.	90	Face-to-face
10 July 2007	Clustering	Members of the KMT who are considered knowledgeable of the situation met to cluster the actions into categories and name these categories. They clustered the 27 actions into 4 categories.	60	Face-to-face
15 Oct 2007	Designing projects	6 economists and business experts met to start designing projects related to economic integration.	120	Face-to-face

Events related to the vision co-laboratory  
 Events related to the obstacles co-laboratory  
 Events related to the actions co-laboratory

*Table 6 Calendar of important milestones and events*

Table 6 illustrates the sequence of events, the time invested in each, and the type of communication (synchronous/face-to-face or asynchronous/virtual). The entire process took 15.5 hours spread over 2.5 months. The total person-hours invested exceeded 325 hours. The last column indicates the type of communication, i.e., a mix of virtual and physical encounters with face-to-face meetings have been used.