# THE ROLE OF INTERNATIONAL MOBILITY IN STUDENTS' CORE COMPETENCES DEVELOPMENT

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#### **Abstract**

The paper examines the role of international mobility through the exchange programs in student's core competences development. The theoretical background of the research is based on academic literature in the field of youth mobility and youth competences development analysis. The research was carried out regarding European framework on key competences for lifelong learning (2006). This research presents a multidimensional approach to students' core competences and their development benefits emerging due to implementation of international mobility programs. Moreover, the paper brings forward valuation of students', who have been exposed to the subject in question, experiences in combination with theoretical background. The empirical study revealed that international mobility programs play important role in all core competences development. Results of the research might draw attention of horizontal student mobility programs developers and institutions implementing it in order to improve efficiency of their affairs. Furthermore, it may be used as a supporting argument evaluating usefulness of funded youth mobility programs. Moreover, a tool for choosing the measures for developing students' competences demanded by constantly changing needs of the labour market could be created based on research results.

The type of the article: Research report.

**Keywords:** students, competences, mobility, international.

JEL Classification: J6, J69, M12.

### 1. Introduction

In the context of businesses globalization, the need for human resources, which are able to act efficiently in international environment, is growing exponentially. Thus, the importance of early development of particular competencies, related to intercultural affairs has to be taken into consideration. Increasing promotion of cooperation between businesses and higher education institutions emphasises the interest of the companies to ensure the quality of future labour force. Meanwhile, higher education institutions as well as wide range of NGO's are addressing the issue by promoting and providing mobility programs opportunities. This also benefit the third party – the youth. International experience and development of particular competences gives a significant advantage when entering the labour market, compared to non-mobile students. However, the question of actual importance of the mobility and the level of students' competences development during international experience remains open. Therefore, it is important to carry out empirical study, which would help to determine the important competences and their development from student point of view.

The aim of the empirical research is to determine the importance of each competence for students as well as to determine whether students from different regions consider each of 8 key competences to be developed during the partial mobility experience.

**Main objectives** are to analyse benefits and drawbacks of students' mobility both from personal and macro economical perspective, to carry out empirical study in order to determine the importance and level of development of students' core competences as well as differences between regions regarding the issue.

**Method of research** includes the analysis of academic literature as well as construction and validation of questionnaire, analysis of data using SPSS 17 statistical program package. After careful study, questionnaire of the research was developed, covering peculiarities of the key competences. Questionnaire was based on multiple approaches. It focused on student's attitude towards importance of the competence in question as well as their personal evaluation of competence development through participation in mobility programs. 667 students participated in the survey European-wide.

# 2. The benefits and risks of international mobility

Globalization and migration processes that are spreading across the world are one of the factors, which allow growth of migration. Increasing mobility can also be monitored among youth, especially in countries of weaker economic condition. Significant number of graduates chose to study abroad. International experience is crucial in developing wide range of youth competences, grants them advantage in terms of both domestic and international labour market competition. However, economically weaker countries have a tendency of "brain drain" effect, meaning that after graduating abroad, students stay to work. This effect may have serious consequences regarding countries future intellectual welfare. As alternative students are offered programs co-funded by European Union [EU] such as Erasmus and Youth in Action. Such programs provide students of local universities with competences development through international mobility. Furthermore, they help to keep graduates in the country this way improving quality of countries' labour force. However, the effectiveness and the importance of partial mobility from students' perspective remain in question. Moreover, it is important to determine which of the full range of the competences are developed the most during partial international mobility. Therefore, the main objective of following research is to determine how students' partial mobility contributes to development of separate competences.

The analysis of scientific literature revealed, that relation of students' mobility and their competences development was researched by Kumpikaitė and Duoba (2011, 2013), Kumpikaitė and Mihi-Ramirez (2013), Konevas and Duoba (2007), Kumpikaitė and Alas (2009), Čiarnienė and Kumpikaitė (2011), Čiarnienė *et al.* (2010), Mihi-Ramirez and Kumpikaitė (2013a,b), Bracht and Engel (2006), Arasaratnam and Doerfel (2005), Freiberger and Steinmayr (2012). However, the research that would evaluate development of different students' competences in detail, comparing regions of Europe, attitude of Lithuanian students in comparison with attitude of students across the Europe, was not yet carried out.

Important benefits of partial mobility were revealed by Bracht's *et al.* (2006). The research has shown that almost all former ERASMUS students as a rule are better than non-mobile students as far as "international competences" (such as knowledge of other countries, foreign language proficiency and understanding of cultures and societies) are concerned. Moreover, it is believed that formerly mobile students are at least somewhat superior as well upon return from the study period abroad with respect to other academically and professionally relevant competences. Kumpikaitė and Duoba (2012) coins out, that the attraction of the unknown and of the difference between countries helps to broaden the mind and ways of thinking. Student mobility allows appearance of social and cultural contacts. In case of academic exchange, presence of foreign teachers, cooperation with multicultural students and staff supports the international atmosphere of higher education institutions in a natural way and gives students possibilities to learn to act in a multicultural environment. Therefore, considering benefits for the corporate environment, these factors reveal that students with partial mobility experience could prove to be better developed human resources in comparison with non-mobile students. Thus, partial mobility gives mobile students advantage when entering the labor market.

Partial students' mobility can be classified according the time horizon to vertical and horizontal mobility. The former implies that student stays abroad for the full duration of studies, while vertical mobility concept includes partial studies, academic exchange or youth exchange

experience (ESIB, 2007). In a case of economically weaker countries, such as Lithuania, vertical mobility may result in brain drain effect. It materializes when young talents decide to take full studies abroad and as result stay to work there after graduation. On the other hand, Kumpikaitė and Duoba (2011) coins out that horizontal mobility is more popular than vertical, making it an important determinant in development of human resources. Thus it is important to determine competencies that are being developed during partial mobility experience.

The framework of 8 key competences was developed as a result of the need to define the new basic skills to be provided through lifelong learning as a key measure in Europe's response to globalization and the shift to knowledge-based economies (European Parliament and the Council, 2006).

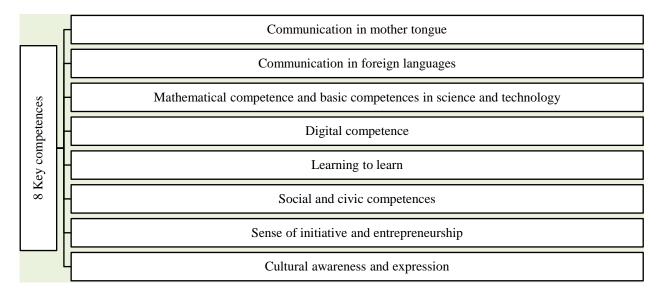


Figure 1. Key Competences for Lifelong Learning, 2006

The competences given (see Figure 1) could be classified to ones that are being developed directly as a result of partial mobility experience and indirectly. The former would include Communication in foreign languages, Social and civic competences and Cultural awareness and expression. However, the international settings, challenges faced when exposed to unfamiliar environment refer to accelerated development of much wider range of competencies, which may as well include all 8 of them. Thus it is important to research full range of competencies defined by European framework in order to determine the importance and level of development appropriately.

## 3. Method

Structured questionnaire was selected for the study. As a basis of the empirical research, 8 key competences for lifelong learning framework by European Parliament and the Council (2006) were used. The aim of the empirical research was to determine the importance of each competence for students as well as to determine whether students consider each of 8 key competences developed during the partial mobility experience. Therefore, survey was composed of two parts, the main two questions were:

- Are the listed competences important to students?
- Did students improve the listed competences during their mobility experience?

In order to evaluate importance and development level of each competence accurately, each of 8 key competences were divided into three corresponding skills/abilities defining the competences in question (see Table 1). It was done with reference to European reference framework of key competences for lifelong learning (2007).

**Table 1.** The composition of the survey

Competence	Skills/abilities					
Communication in mother tongue [CMIT]	<ul> <li>Expressing and interpreting concepts, thoughts, feelings, facts and opinions</li> <li>Interacting linguistically in an appropriate and creative way</li> <li>Ability to distinguish and use different types of information</li> </ul>					
Communication in foreign languages [CIFL]	<ul> <li>Understanding, expressing, interpreting of concepts and facts in both oral and written form in foreign language</li> <li>Understanding, expressing, interpreting of thoughts, feelings, opinions in both oral and written form in foreign language</li> <li>Knowledge of vocabulary and functional grammar of the foreign language</li> </ul>					
Mathematical competence and basic competences in science and technology [MSC]	<ul> <li>Developing and applying mathematical concepts in everyday situations</li> <li>Ability to use mathematical modes of thought (logical and spatial thinking)</li> <li>Ability and willingness to use the body of knowledge and methodology employed to explain the natural world and to draw evidence-based conclusions</li> </ul>					
Learning to learn [LTL]	<ul> <li>Ability to pursue and persist learning, to organize one's learning through effective management of time and information</li> <li>Ability to build on prior learning experiences (gain, process and assimilate knowledge)</li> <li>Awareness of one's learning process and needs, identifying available opportunities</li> </ul>					
Digital competence [DC]	<ul> <li>Using the computers to retrieve, assess, store, produce and present information</li> <li>Ability to communicate and participate in collaborative networks via internet</li> <li>Confidence and critical use of Information Society Technology (IST) for work, leisure and communication</li> </ul>					
Social and civic competences [SAC]	<ul> <li>Participating in an effective and constructive way in social and working life</li> <li>Ability to resolve conflict where necessary, especially in diverse societies</li> <li>Commitment to active democratic participation in civic life, based on knowledge of social and political concepts and structures</li> </ul>					
Sense of initiative and entrepreneurship [IAE]	<ul> <li>Identification of opportunities available</li> <li>Ability to turn ideas into action (creativity, innovation, risk-taking)</li> <li>Ability to plan and manage projects in order to achieve objectives</li> </ul>					
Cultural awareness and expression [CULT]	<ul> <li>Appreciation of the importance of the creative expression of ideas, experiences and emotions</li> <li>Awareness of national and European cultural heritage and their place in the world</li> <li>Understanding of necessity to preserve cultural and linguistic diversity in Europe and other regions of the world</li> </ul>					

Source: Based on Key Competences for Lifelong Learning (2006).

Respondents had to evaluate each skill/ability in the scale from 1 to 6, where 6 is "absolutely yes" and 1 is "absolutely no". Structured questionnaire was prepared for the study. The questionnaire was provided in Internet. The access to questionnaire was published to Facebook, sent to students in Lithuania and foreign friends abroad. Survey was provided in November of 2012. The sample of the survey was 667 respondents from Europe, who had experience in partial mobility programs, such as Erasmus, Youth in Action, student exchange "Baltech", European Youth Foundation and others. Statistical analysis program SPSS 17 was used in order to analyze the results of the survey.

### 4. Results

In this section of the paper results of the empirical analysis are presented. First of all, suitability of the responses for further research was checked. The analysis showed that 315 responses in total were eligible for further research, meaning they had a full set of data required from the respondents initially. General information of responses, which met the eligibility criteria, is presented in Table 2.

	Male	Female	Total
Academic exchange programs			
Erasmus studies	75	150	225
Erasmus placement	7	20	27
Other program	23	20	43
Non - formal education events			
Youth in Action	23	55	78
European Youth Foundation	2	10	12
Baltech	3	11	14
Other program	29	38	67
Age			
18-26	96	173	269
27-32	9	12	21
33-40	0	2	2
Did not specify	9	14	23
Total	114	201	315

**Table 2.** General information about respondents

Out of 315 total responses, 201 were filled by females and the remaining 114 by males. The most popular academic exchange program among both genders is Erasmus studies – 74,5% of female and 65,8% of male respondents have taken this opportunity. Attendance of Erasmus placement is significantly lower – respectively 10% of female and 6,1% of male respondents. Considering non – formal education events, Youth in Action program was the most popular among analyzed. In total, 24,8% of the respondents had partial mobility experience by the means of this program. Considering gender balance, similar results were found – female tend to participate in Youth in Action program events more (27,4% of total) than men (20,2% of total). The non – formal education program by popularity among the respondents was Baltech exchange. This could be explained by the geographical distribution of the respondents in total used this opportunity. Even less respondents had partial mobility experience by the means of European Youth Foundation program, only 3,8%.

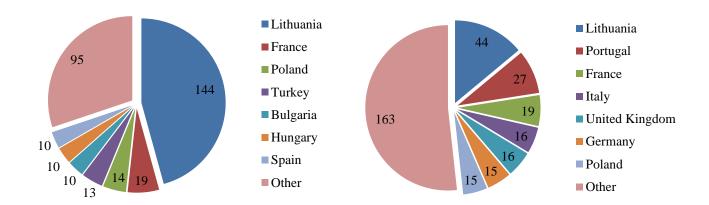
Considering age group, the majority of the respondents (85,4%) were 18-26 years old. The second most frequent age group was 27 - 32 year group. Only 2 respondents got into age group of 33 - 40 years. Therefore, we can assume that the sample of survey is composed mainly of youth, which is the target audience for the research.

Analysis of the respondents by geographical distribution showed the survey has worldwide geography (see Figure 2). Authors tried to involve in researching so many students from different countries as possible. In total respondents from 44 different countries participated in the survey. However, Lithuanians were the nationality that answered the questionnaire most frequently (144 respondents). Total sample included in research involves 315 responses, meaning 54.29 % of the respondents originated from other European countries. The detailed distribution of responses by sending country is given in Table 3. United Nations Statistics Division (2013) composition of geographical regions was used for grouping of the countries.

Eastern Europe		Northern Europe		Southern Europe		Western Europe		Other	
Poland	14	Lithuania	144	Spain	10	France	19	Turkey	13
Bulgaria	10	Latvia	4	Portugal	8	Germany	7	Georgia	3
Hungary	10	Estonia	2	Greece	6	Austria	4	Azerbaijan	2
Czech Republic	6	Norway	2	Italy	6	Luxembourg	4	Brazil	2
Romania	4	United Kingdom	1	Serbia	5	Netherlands	4	South Korea	2
Ukraine	4	Finland	1	Slovenia	4			India	1
Russia	2			Croatia	3			United States	1
Belarus	1			Montenegro	2				
Moldova	1			Macedonia	2				
Slovakia	1								
Total	53		154		46		38		24

**Table 3.** Geographical distribution of the responses

Naturally, the majority of the responses came from Lithuania -144 (45,7%). In the second place according to the number of responses appeared to be France -19 responses (6%), the third - Poland -14 (4,4%) responses, and the fourth - Turkey -13 (4,1%) responses. The fifth place is shared by Bulgaria, Hungary and Spain - each of them has 10 respondents. The remainder of the countries got less than 10 responses and in total constituted 95 responses -30,2% of total.



**Figure 2.** Sending country of the respondents

**Figure 3.** Hosting country of the respondents

Relatively different results were revealed when analyzing partial mobility of the respondents hosting country (see Figure 3). The results revealed even more results among hosting countries than in the case of sending countries. However, the first place due to the sample and distribution channels of the survey is still owned by Lithuania, which was a partial mobility destination for 44 (13,97%) respondents. Meanwhile, Portugal is at the second place with 27 (8,57%) respondents, and France is at the third place with 19 (6%) respondents. The result of the hosting could be highly influenced by partner universities of Kaunas University of Technology, since significant part of respondents come from the university mentioned.

Analysis of the respondents' educational background revealed, that majority of the respondents already have a degree. 90 respondents have Bachelor's degree, while 60 have a post graduate degree. Meanwhile, 130 of the respondents were still studying at university or college. Minority of the respondents claimed to have education equivalent to 12th grade or less -5 respondents in total.

To sum up the results of the survey sample analysis, Erasmus studies was the most popular mean of partial mobility among the respondents. Meanwhile, Youth in Action was the second most popular program. Though, other partial mobility programs also played a significant role in the survey. Vast majority of the respondents can be considered youth, since only two of them claimed

to be over 32 years old. Moreover, the sample of the survey is highly educated, since majority of respondents either has a degree or is studying at the university. Though the sample of the survey has a wide geographical distribution, Lithuanian respondents tends to take significant part of sample considering sending country data. However, more even geographical distribution was achieved when analyzing hosting country data. Thus, partial mobility experience from wide range of different cultures and countries is being represented by the sample of survey.

Data of the survey was analyzed by the means of statistical analysis program SPSS 17. In order to determine importance and development of each competence, the mean of all sample of survey was calculated for each competence respectively. Furthermore, standard deviation [stdev] was calculated in order to determine the variation of the responses of the sample. The analysis revealed that partial mobility programs had a positive impact on development of all competences analyzed. However, numerous significant differences were found when analyzing importance and level of development of each individual competence.

Among the most important competences communication can be pointed out, both – in foreign languages and in mother tongue (see Table 4). At the second place by importance social and civic competences are pointed out. Important thing is that this competence also has the lowest variation of answer, which reveals highest unanimity of respondents. Thus, respondents value ability to communicate constructively and effectively, show tolerance, express and comprehend diverse attitudes, negotiate while establishing trust and empathy, deal with stress and disappointment, critical and creative thinking and constructive participation in activities of community or neighborhood. At the third place by importance learning to learn competence can be found. Meanwhile, mathematical competence and basic competences in science and technology was evaluated the least important competence by significant difference. Therefore, the results show, that competences related to social and human interaction subject are considered to be more important than competences, related to science and technology.

Competence*	Total	Northern Europe	Western Europe	Southern Europe	Eastern Europe	Other countries
CIFL mean	5,3402	5,4018	5,2299	5,3178	5,2867	5,2500
stdev	0,80	0,70	0,69	0,65	0,81	0,92
SAC mean	5,2466	5,2991	5,0575	5,1783	5,3733	5,0139
stdev	0,73	0,78	0,98	0,93	0,69	0,81
CMIT mean	5,2021	5,2123	5,0690	5,2791	5,1800	5,2083
stdev	1,24	0,86	0,87	0,63	0,79	0,60
LTL mean	5,1073	5,1393	4,8851	5,2016	5,1467	4,9306
stdev	0,92	0,88	1,04	0,71	0,87	0,92
CULT mean	5,0103	5,1005	4,5862	4,8527	5,0267	4,9444
stdev	0,87	0,91	1,06	0,97	0,82	0,88
DC mean	4,9943	5,0913	4,5517	4,9690	5,0000	4,9722
stdev	0,81	0,86	1,10	0,96	0,84	1,04
IAE mean	4,9874	5,0320	4,7816	4,9457	5,0733	5,1389
stdev	0,95	0,91	1,08	1,06	0,88	0,91
MSC mean	4,1313	4,0753	4,1149	4,2868	4,0667	4,3472
stdev	0,93	1,31	1,02	1,18	1,34	0,97

**Table 4.** The importance of the competences

As the most developed competences during the partial mobility experience, communication can be pointed out, both – in foreign languages and in mother tongue (see Table 5). Therefore, the competences that are the most important to respondents was also developed the most. It can be

<sup>\*</sup> Communication in foreign languages [CIFL], Social and civic competences [SAC], Communication in mother tongue [CMIT], Learning to learn [LTL], Cultural awareness and expression [CULT], Digital competence [DC], Sense of initiative and entrepreneurship [IAE], Mathematical competence and basic competences in science and technology [MSC].

explained by exposure to unfamiliar environment during partial mobility program, where different language is used. Thus, respondents had to develop their communication skills in order to satisfy their social inclusion needs. Sense of initiative and entrepreneurship is on the second place by level of development during partial mobility experience. However, the result is unexpected since this competence was listed among the least important in respondents' opinion. This phenomenon could be explained by challenges unfamiliar environment present during partial mobility. Initiative and entrepreneurial skills are although not among the most important in everyday life. They are developed in order to overcome challenges presented during partial mobility experience.

To continue with the most developed competencies during the partial mobility experience, social and civic competences are at the third place. In general, development of all the competences aligns by the same order as importance when analyzing sample of survey, with exception of initiative and entrepreneurship, mentioned above. The least developed competence is considered to be mathematical competence and basic competences in science and technology.

In order to evaluate differences of responses due to geographical distribution, the responses were divided to 5 groups by sending country: Northern Europe (154), Western Europe (38), Southern Europe (46), Eastern Europe (53) and other countries (24). United Nations Statistics Division (2013) composition of geographical regions was used for this purpose.

Competence*	Total	Northern Europe	Western Europe	Southern Europe	Eastern Europe	Other countries
CIFL mean	4,9863	4,9703	5,1034	4,9767	5,1067	4,7083
stdev	0,98	0,99	1,18	0,97	0,77	1,08
SAC mean	4,8973	4,8744	4,8276	4,9457	4,9933	4,8333
stdev	1,02	1,03	0,99	1,00	1,00	1,14
CMIT mean	4,7146	4,7443	4,2299	4,8062	4,8533	4,6667
stdev	1,23	1,20	1,71	1,13	1,17	0,94
LTL mean	4,6461	4,6895	4,2644	4,4651	4,9200	4,5972
stdev	1,14	1,13	1,21	1,23	1,10	0,91
CULT mean	4,5936	4,5365	4,3333	4,6822	4,8667	4,5278
stdev	1,11	1,14	1,30	0,97	1,01	1,09
DC mean	4,3299	4,4498	3,9885	4,1318	4,4400	4,1389
stdev	1,22	1,22	1,08	1,16	1,32	1,21
IAE mean	3,9829	4,0959	3,2414	4,0698	4,0467	3,9028
stdev	1,40	1,37	1,60	1,40	1,33	1,31
MSC mean	3,3699	3,4543	2,8506	3,4341	3,3667	3,3750
stdev	1,46	1,46	1,25	1,51	1,62	1,26

**Table 5.** The development of the competences

The analysis of different regions revealed some significant differences. First of all, respondents from Eastern Europe consider social and civic competences to be the most important competence, while others prefer communication in foreign languages. Moreover, Western and Southern Europeans consider communication in mother tongue to be more important than social in civic competences, while others does the opposite. Learning to learn was evaluated the best in the Southern Europe, where it was at the third place in comparison with fourth and fifth in the other regions. Initiative and entrepreneurship got best results in Western and Southern Europe, where it was ranked fifth by importance. However, unanimous results were fixed in case of mathematical competence and basic competences in science and technology – it was named the least important in all regions.

Evaluations of Lithuanian respondents were similar to those of all samples. However, it is worth noting, that Lithuanians perception of cultural awareness and expression is higher than that of other European respondents. Meanwhile, European students consider initiative and entrepreneurships to be of higher importance than cultural competences. It could be explained by

relatively young traditions of entrepreneurship in Lithuania, which is just being started to promote. On the other hand, both Lithuanian and other European students consider initiative and entrepreneurship to be developed more than cultural competencies during partial mobility experience. Yet one more difference between valuation of Lithuanian and other European students – former consider social and civic competences to be developed more than learning to learn, while others consider it to be vice versa.

To sum up, the empirical study reveals the distribution of 8 key competences for partial mobility experience regarding their importance and level of development in the eyes of practical users. However, significant differences between responses of students from different regions were found. Moreover, the competences that are considered to be the most important are not necessarily developed the most during the partial mobility experience. Thus, further research could be carried out in order to determine the reasons for differences mentioned above and therefore preparing the recommendations for development of partial mobility programs.

# 5. Discussion

International mobility programs play important role in all core competences development. However, significant difference was measured between importance and level of development of each competence separately.

Findings of the empirical study reveal that Erasmus studies tends to be the most popular mean of partial mobility among the young people of Europe. Meanwhile, Youth in Action is the second most popular program. It emphasizes the importance of both – middle and short term partial mobility programs for the development of student competences.

Research revealed that among the most important competences communication can be pointed out, both – in foreign languages and in mother tongue. Furthermore, this competences was also considered to be developed the most during partial mobility experience. Therefore, there is no conflict between the main expectations of students regarding partial mobility programs and actual experience.

Competence of sense of initiative and entrepreneurship was found at the second place by level of development during partial mobility. However, it was listed among the least important in respondents' opinion. It could result from lack of realization of importance of the competence in question. On the other hand, partial mobility programs may help students develop not the most desired competencies, but those, which come naturally with the changed environment.

Unanimous results, regarding all angles were monitored in case of mathematical competencies in science and technology. In all regions of Europe, it was considered the least important and the competences that is developed the least during the partial mobility experience. It emphasizes the problem of students choosing social sciences rather than technological ones, which leads to lack of specialist in respective fields.

Research of the regional result revealed that social and civic competences are being valued the most in Eastern Europe, while other regions prefer communication in foreign languages. Moreover, Western and Southern Europeans value communication in mother tongue more than other regions. Differences mention could result from cultural environment and promotion of different competencies throughout the Europe.

It leads to a conclusion, that students value ability to communicate constructively, show tolerance, express and understand different attitudes, negotiate, deal with stress and anxiety, think critically and creatively as well as participation in social activities. It emphasises the importance of international mobility programs, since these skills and abilities were among the most developed during respondents' mobility experience.

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