



Rating collaborative excellence as a factor influencing the European Added Value

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Collaborative Excellence (CE)

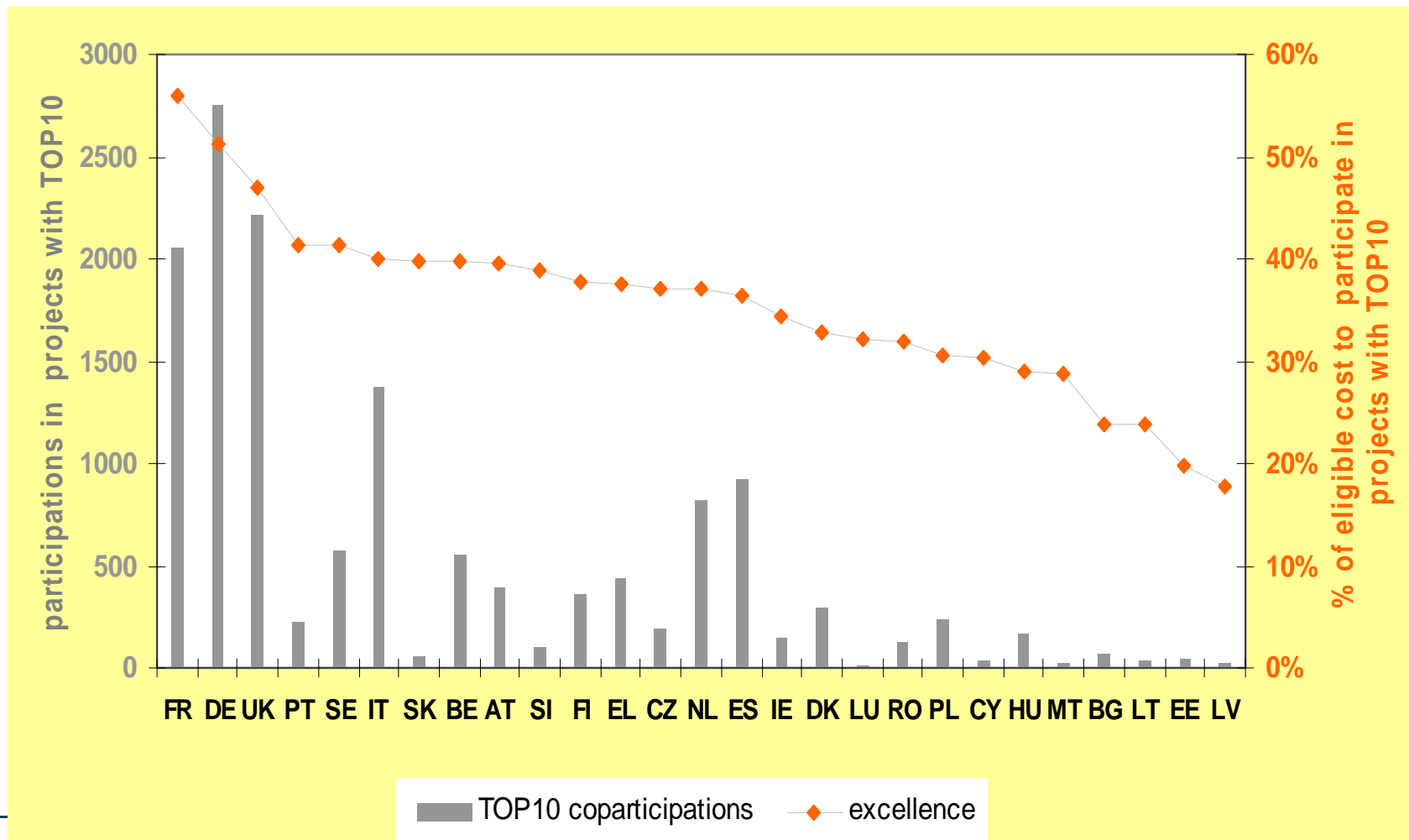
of the country participation in the FP7

$$\text{Country CE} = \frac{\sum_{\text{country}} \text{indicator (TOP10)}}{\sum_{\text{country}} \text{indicator (FP7)}}$$

- The set of „FP7 excellent institutions“ is defined, e.g. TOP10 (first 10 institutions that gained the highest support from the FP7 in the period 2007-2009, similarly TOP25, TOP50, TOP10ICT, TOP25 industry etc.)
- Select an indicator of the country „coparticipation with the excellent institutions“ (e.g. with the TOP10 institutions). The indicator might be the e.g. the Number of country participations in projects with TOP10, or the support that the country requests to participate in projects with TOP10, or the eligible cost that the country invests to participate in projects with TOP10 etc.
- **Indicator used in this study: eligible cost**

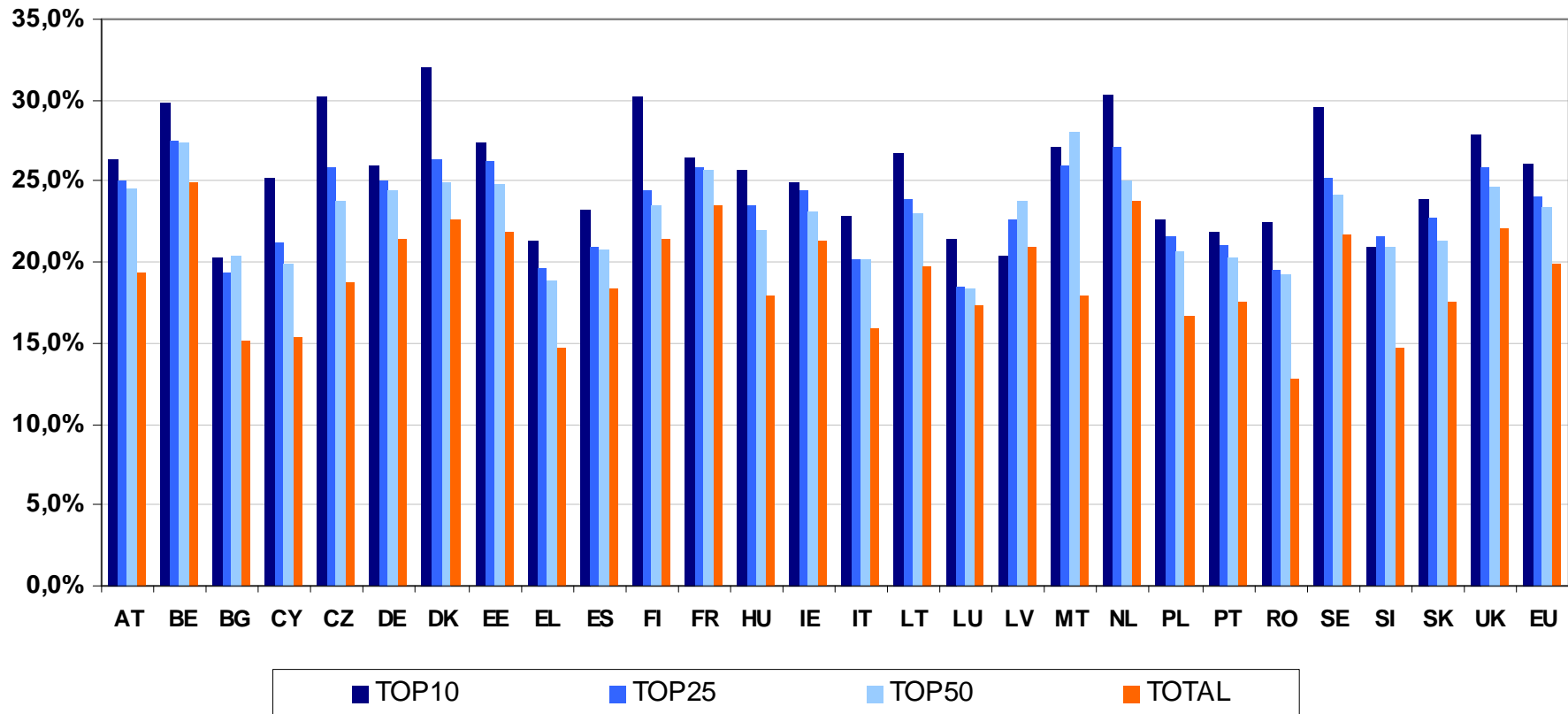
	Name		N	MC
1	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE	FR	510	194
2	FRAUNHOFER-GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V.	DE	331	141
3	COMMISSARIAT A L' ENERGIE ATOMIQUE	FR	257	114
4	MAX PLANCK GESELLSCHAFT ZUR FOERDERUNG DER WISSENSCHAFTEN E.V.	DE	240	96
	FONDATION EUROPEENNE DE LA SCIENCE		7	93
5	ECOLE POLYTECHNIQUE FEDERALE DE LAUSANNE	CH	167	88
6	EIDGENÖSSISCHE TECHNISCHE HOCHSCHULE ZÜRICH	CH	171	86
7	THE CHANCELLOR, MASTERS AND SCHOLARS OF THE UNIVERSITY OF CAMBRIDGE	UK	218	85
8	THE CHANCELLOR, MASTERS AND SCHOLARS OF THE UNIVERSITY OF OXFORD	UK	177	83
9	IMPERIAL COLLEGE OF SCIENCE, TECHNOLOGY AND MEDICINE	UK	180	74
10	CONSIGLIO NAZIONALE DELLE RICERCHE	IT	242	71

EU-27 ranked by CE

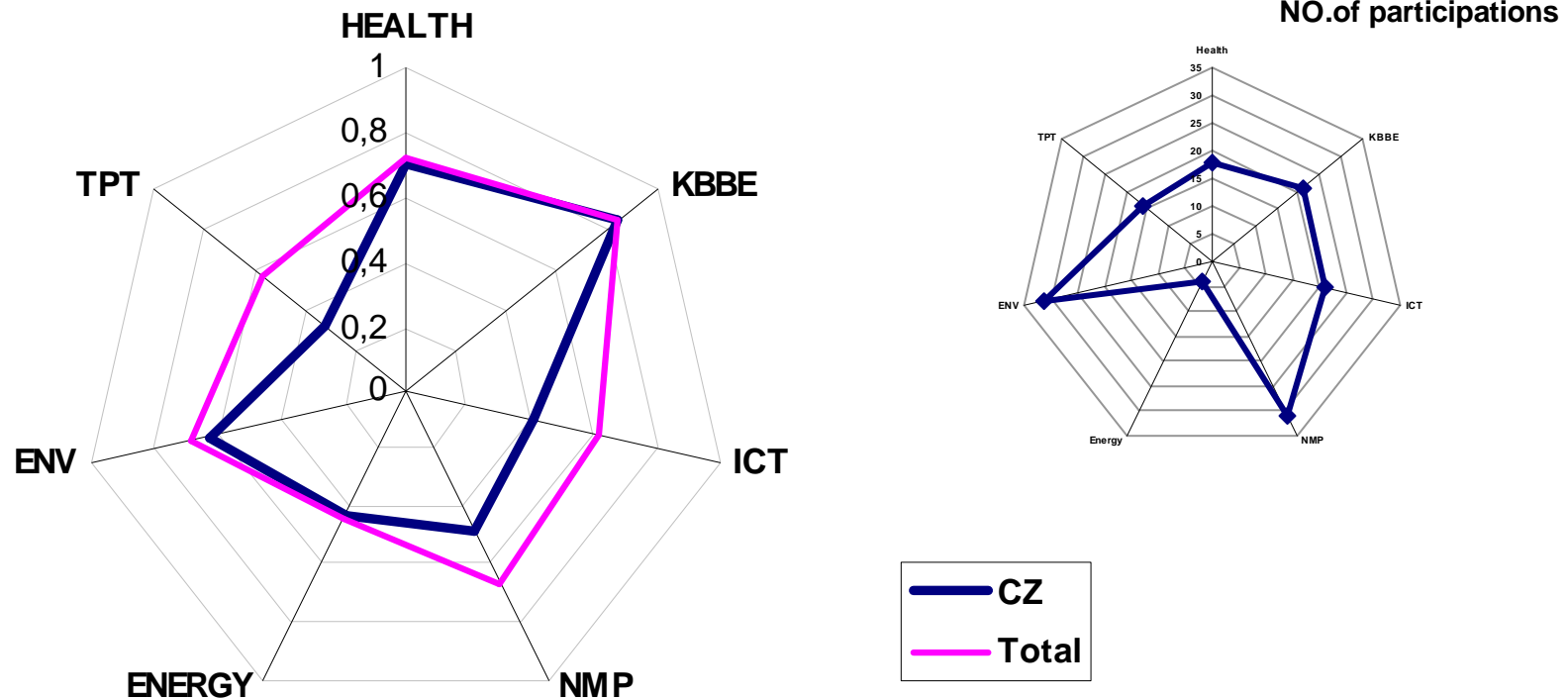




Collaboration with TOP10 (25,50) increases country success rate, ... thus "Collaborative Excellence"



Collaborative excellence profile of the Czech Republic





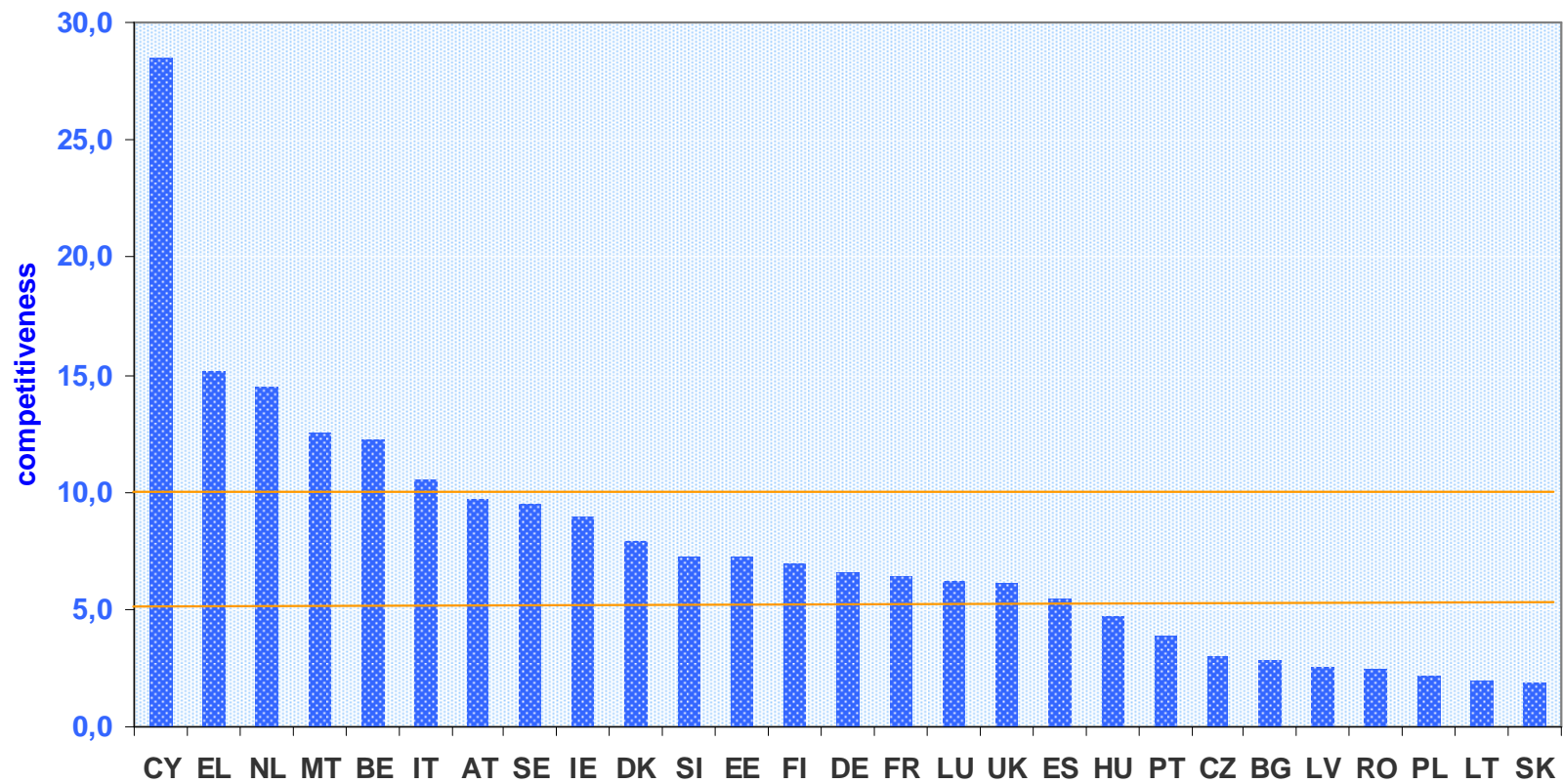
Country competitiveness Country Relevance for the FP7 and Significance of the FP7 for the country

$$\text{Country competitiveness} = \frac{\sum_{\text{country}} \text{participations}}{1000 \text{ Full Time Equivalents R\&D}}$$

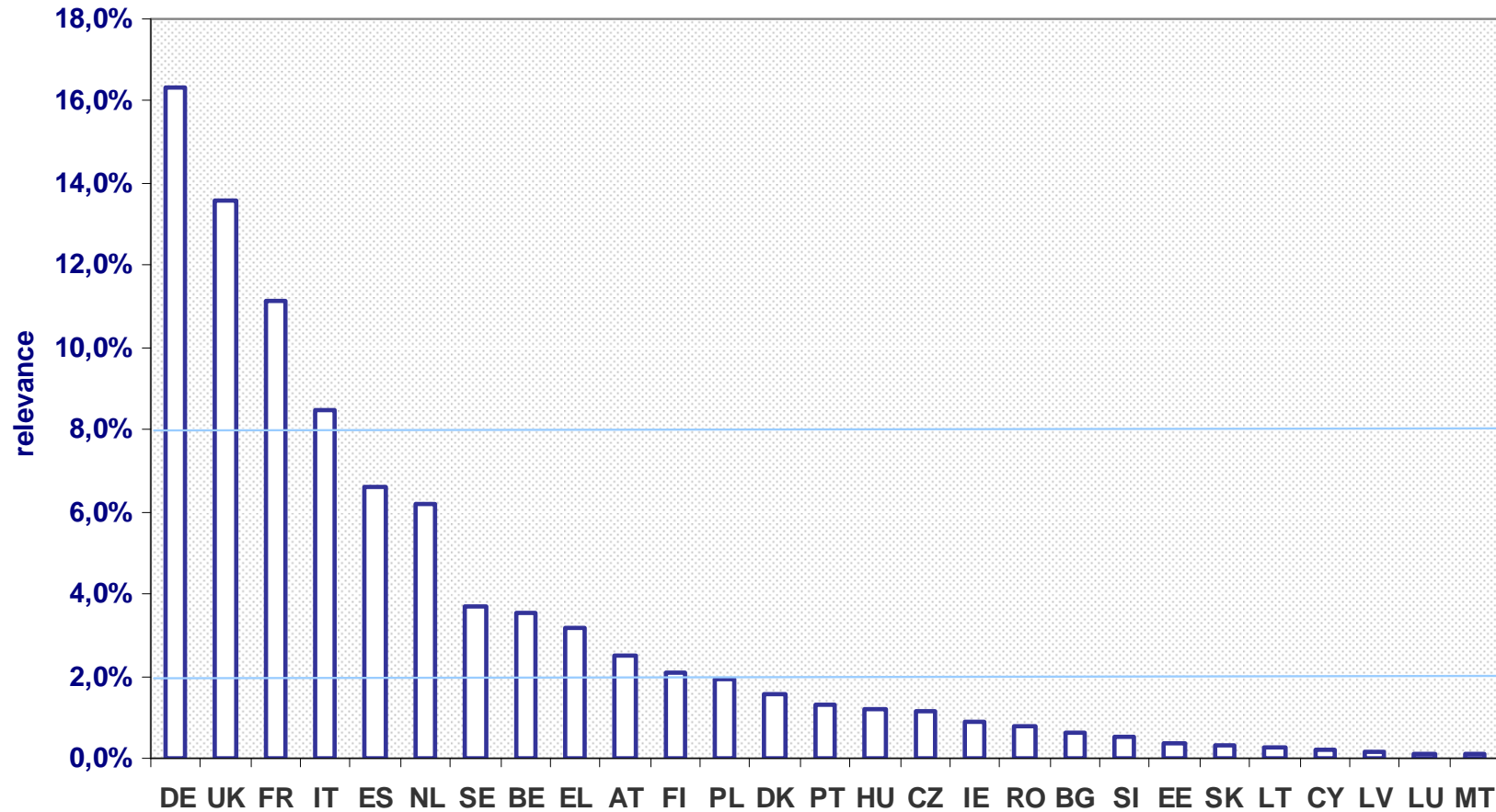
$$\text{Country relevance} = \frac{\sum_{\text{country}} \text{requested support}}{\text{total distributed support for EU27}}$$

$$\text{Country significance} = \frac{\sum_{\text{country}} \text{eligible cost}}{\text{GERD(country)}}$$

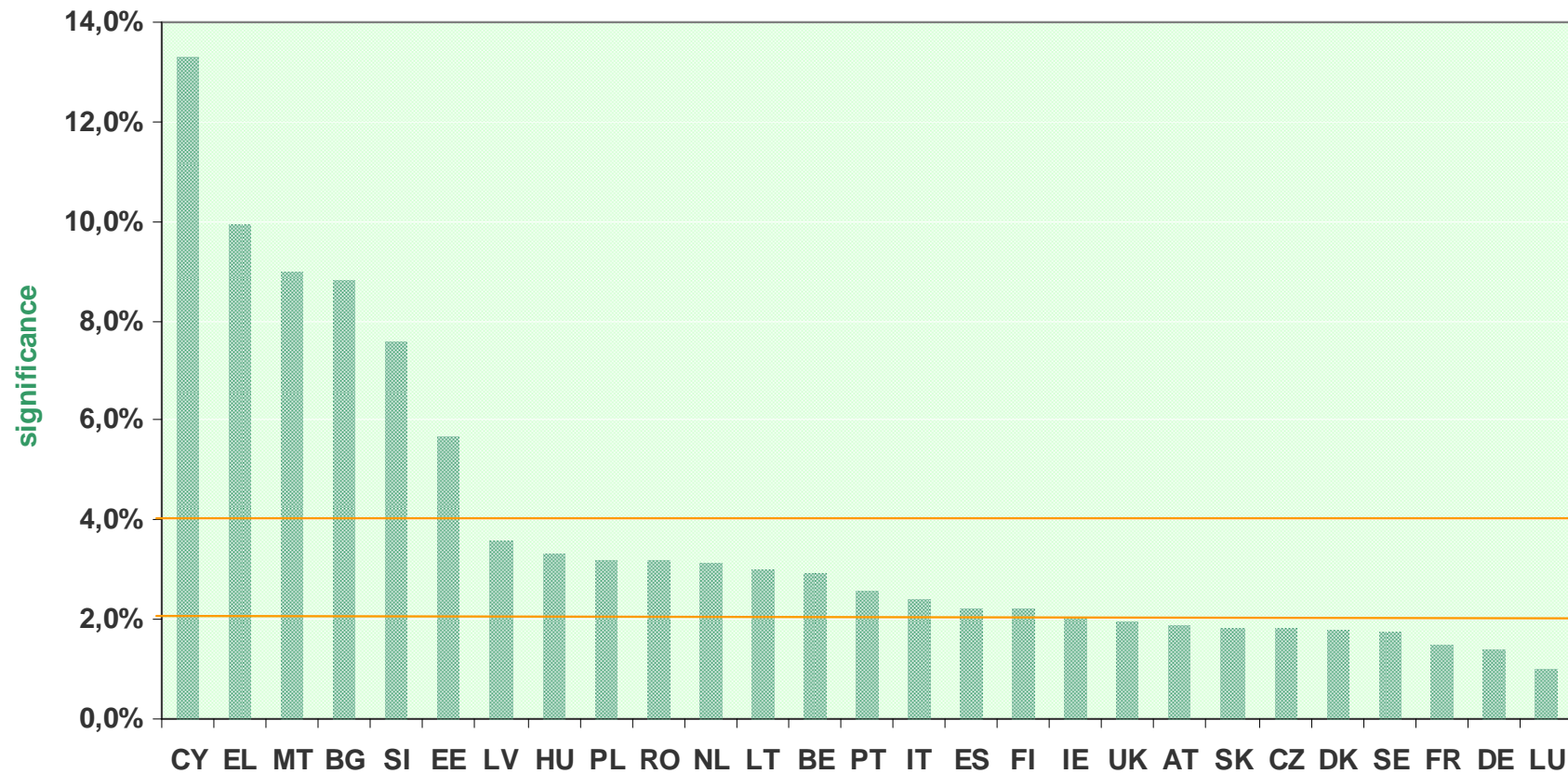
EU-27 ranked by Competitiveness



EU-27 ranked by Relevance

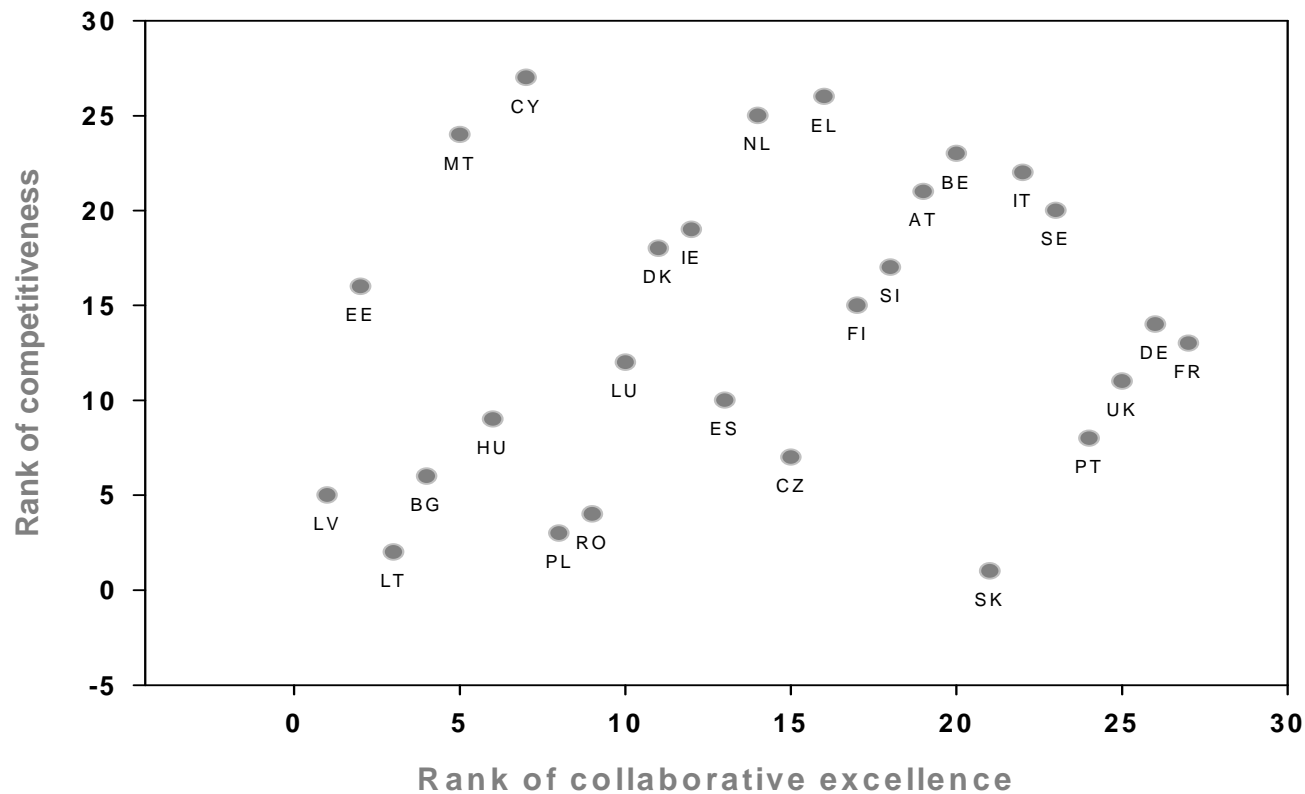


EU-27 ranked by Significance



Competitiveness – excellence relation

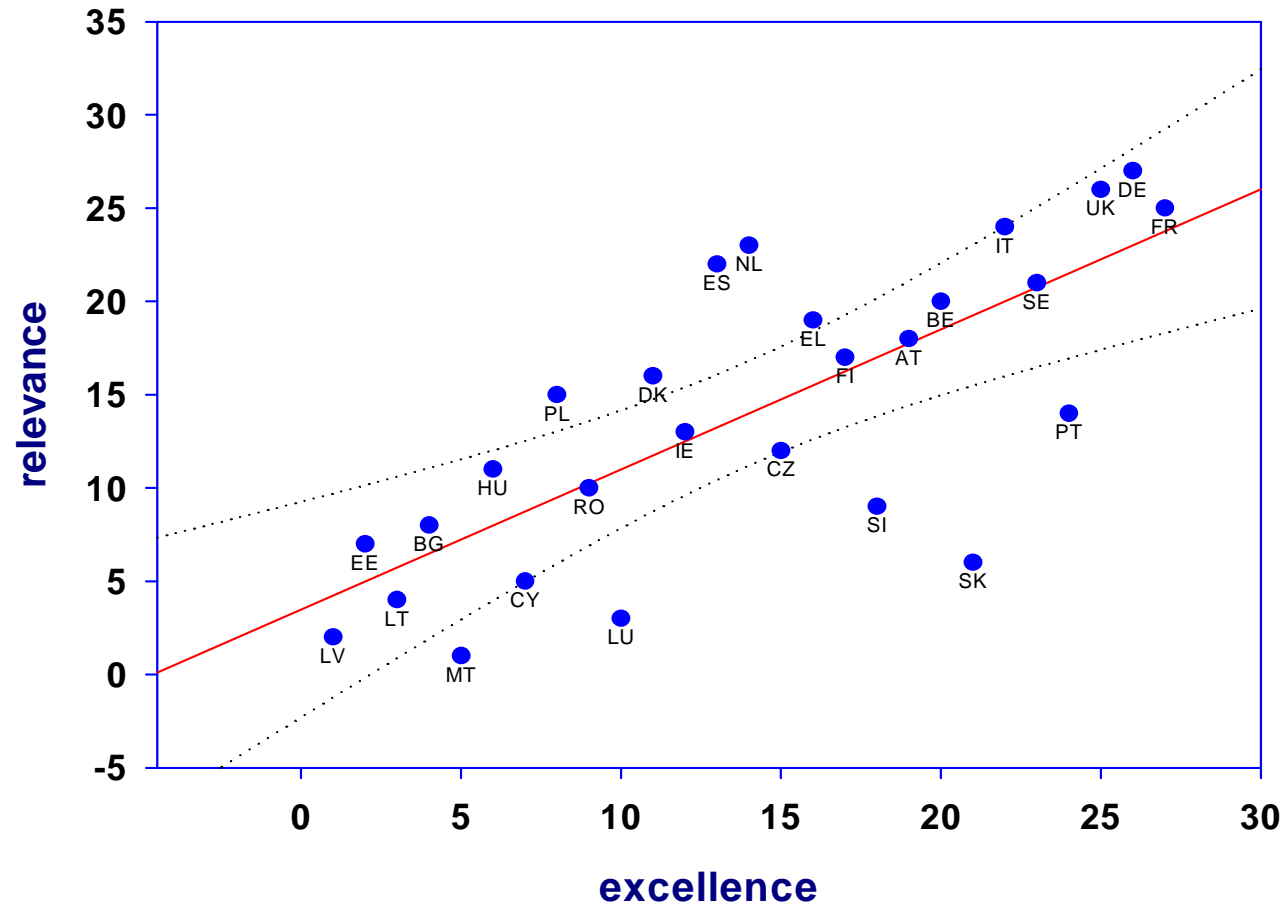
competitiveness is not correlated with collaborative
excellence



Relevance – excellence relation

rank correlation = 0,75

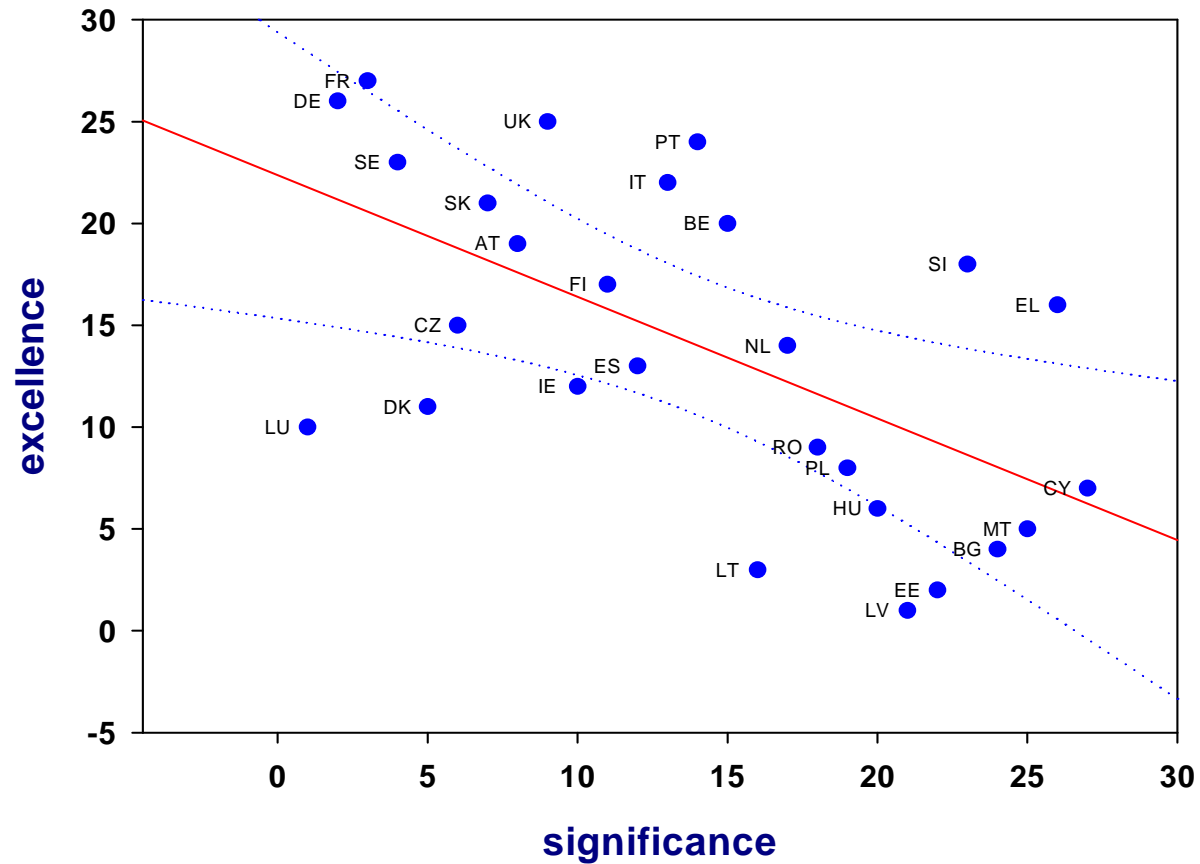
„the higher the excellence the higher the relevance“



Excellence – significance relation

rank correlation = - 0,59!!!

„the higher the significance the lower the excellence“?!?



Conclusions

- The “excellence in the FP” is not a matter of the ERC projects only, it must be required even in the demand oriented research projects, i.e. in the Cooperation SP as well.
- The collaborative excellence measures how much the country teams collaborate with the excellent institutions”. The CE is “ratio based indicator”, thus it eliminates the country size.
- Collaboration with the excellent institutions increases the country success rate and hopefully it increases the chance that the consortia with teams from excellent institutions can attain the project goals.
- Relation relevance - collaborative excellence confirms sound tendency of the FP7 (FP7 might increase the global competitiveness of the EU)
- Relation „significance - collaborative excellence “ indicate that the „excellence based participation” should be strengthened, e.g. by formulating the “requirements for excellence” in the calls and in the project proposal evaluation.
- The collaborative excellence can be interpreted as a measure of the European Added Value. The “FP participation strategy” of the CZ institutions should be focused to attaining the high collaborative excellence.