

Methodological Support of Technical and Economic Assessment of Measures for Unification

A.V. Leonov¹, FSBI 46 Central Research Institute of Russia Defense Ministry, Prof. Dr., alex.clein51@yandex.ru

A.Yu. Pronin², FSBI 46 Central Research Institute of Russia Defense Ministry, Assoc. Prof. Dr., pronin46@bk.ru

¹ Leading Researcher, Moscow, Russia

² Deputy Head of Department, Moscow, Russia

Citation: Leonov A.V., Pronin A.Yu. Methodological Support of Technical and Economic Assessment of Measures for Unification, *Kompetentnost' / Competency (Russia)*, 2021, no. 7, pp. 4-15. DOI: 10.24412/1993-8780-2021-7-04-15

key words

terminological base, high-tech products, unification, unification potential, typification, modernization

We analyzed the terminological base used in the unification of ECP, and found that when assessing the level of unification, it is necessary to take into account the systemic property of unification, namely: the relationship of the unified object with another object (objects), which is the main prerequisite for the emergence of various synergistic technical and economic effects; introduced a new concept of unification potential to quantify the possibility of the created HTP products (a set of products) for unification, established its basic principles and directions; identified the main stages of the program-targeted planning of work on the creation and modernization of the HTP, taking into account the measures for unification; developed a methodological support for the technical and economic assessment of measures for unification at the stages of program-targeted planning of work in the creation and modernization of high-tech products. Two methods for assessing unification are proposed: the first method is based on assessing the economic effect, and the second is based on assessing the efficiency coefficient of the use of high-tech products associated with the unification indicator.

References

1. Prokhorov A.M. Bol'shaya sovetskaya entsiklopediya [Great soviet encyclopedia], Moscow, *Sovetskaya entsiklopediya*, 1969–1978, 19774 P.
2. Voskresenskiy B.V., Palamarchuk A.S. Spravochnik ekonomista-mashinostroitel'ya [Handbook of an economist-mechanical engineer], Moscow, *Mashinostroenie*, 1977, 303 P.
3. Prokhorov A.M. Sovetskiiy entsiklopedicheskiy slovar' [Soviet encyclopedic dictionary], Moscow, *Sovetskaya entsiklopediya*, 1985, 1377 P.
4. GOST 1.1–2002 International system of standardization. Terms and Definitions.
5. GOST R 1.12–2004 Standardization in the Russian Federation. Terms and Definitions.
6. GOST 23945.0–80 Unification of products. Basic provisions.
7. Leonov A.V., Alferova T.K., Samokhval V.I. Unifikatsiya promyshlennoy produktsii: sostoyanie terminologicheskogo obespecheniya [Unification of industrial products: the state of terminological support], *Standarty i kachestvo*, 2012, no. 12, pp. 50–54.
8. GOST R 207–2005 System for the development and launch of products. The procedure for carrying out work on standardization and unification. Basic provisions.
9. Grigor'eva L.I. Sushchnost' unifikatsii [The essence of unification], *Standarty i kachestvo*, 1983, no. 5, pp. 34–35.
10. Lifits I.M. Standartizatsiya, metrologiya i sertifikatsiya [Standardization, metrology and certification], Moscow, *Yurayt-Izdat*, 2005, 345 P.
11. Yaremenko O.V., Kreyter S.V. O ponyatii unifikatsiya [About the concept of unification], *Standarty i kachestvo*, 1982, no. 7, pp. 13–15.
12. Yaremenko O.V. Realizatsiya trebovaniy unifikatsii pri standartizatsii produktsii [Implementation of unification requirements for product standardization], *Standarty i kachestvo*, 1983, no. 8, pp. 20–24.
13. Tkachenko V.V. Metodika i praktika standartizatsii [Methodology and practice of standardization], Moscow, *Izdatel'stvo standartov*, 1971.
14. Lapitskiy A.M., Zharkov N.V., Pantyukhin N.F. O ponyatii tipizatsiya i unifikatsiya [About the concept of typification and unification], *Standarty i kachestvo*, 1983, no. 7, pp. 34–35.
15. GOST 21623-78 System of technical maintenance and repair of equipment. Indicators for assessing maintainability. Terms and Definitions.
16. Burenok V.M. Modernizatsiya kak vazhnaya nauchnaya i proizvodstvennaya problema [Modernization as an important scientific and industrial problem], *Vozdushno-kosmicheskaya oborona*, 2009, no. 5, pp. 17–25.
17. Leonov A.V., Pronin A.Yu. Problemy i puti sozdaniya vysokotekhnologichnoy produktsii v usloviyakh diversifikatsii predpriyatiy oboronno-promyshlennogo kompleksa [Problems and ways of creating high-tech products in the context of diversification of enterprises of the military-industrial complex], Moscow, *INFRA-M*, 2019, 351 P.
18. Leonov A.V., Pronin A.Yu. Rol' unifikatsii pri modernizatsii promyshlennoy produktsii [The role of unification in the modernization of industrial products], *Kompetentnost'*, 2018, no. 1(152), pp. 8–16.
19. Vikulov S.F. Voennno-ekonomicheskii analiz [Military economic analysis], Moscow, *VU*, 2015, 340 P.
20. Anosov R.S., Byvshikh D.M. i dr. Ekonomicheskii effekt ot primeneniya unifikatsionnykh sostavnykh chastey pri razrabotke tekhniki radioelektronnoy bor'by [The economic effect of the use of standardized components in the development of electronic warfare technology], *Vooruzhenie i ekonomika*, 2014, no. 4, pp. 100–104.
21. Burenok V.M., Lavrinov G.A., Podolskiy A.G. Otsenka stoimostnykh pokazateley vysokotekhnologichnoy produktsii [Evaluation of the cost indicators of high-tech products], Moscow, *Granitsa*, 2012, 424 P.
22. Shipunov A.G. Izbrannyye trudy akademika [Selected works of the academician], Moscow, *Granitsa*, 2017, 456 P.