

CDE4Peace

Business Brief no.2

Peace products for the European Union

by Nikolay Pavlov | March 2022, Vienna





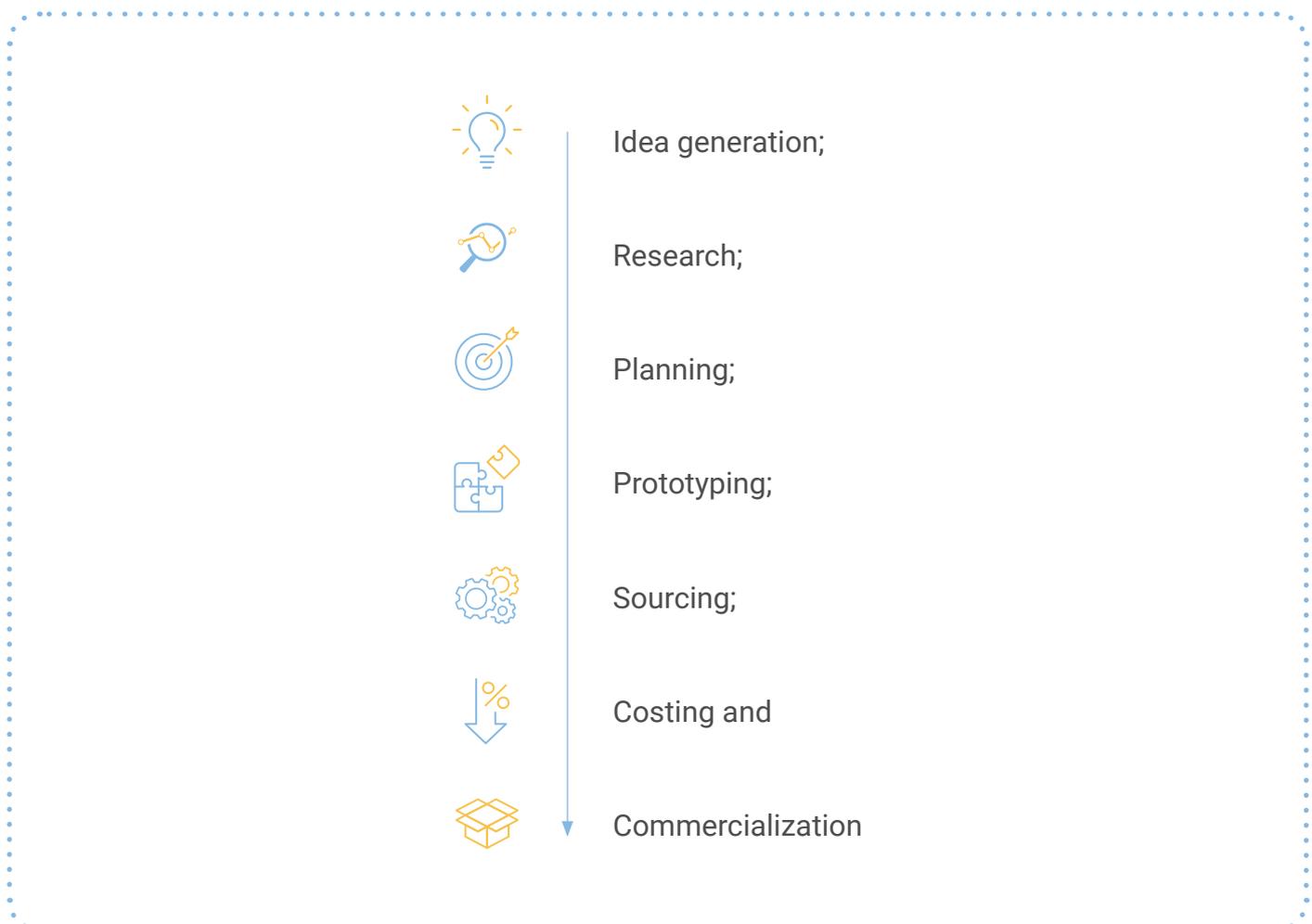
With war returning in Europe the demand for peace products on the international market is on the increase. European companies can address the increased demand by developing new peace-related concepts, ideas and technologies which could be used by EU policy-makers for EU peacebuilding purposes. As a peace project the EU is able to specialize exactly in peace-related products. The role and responsibility of European companies in this respect is of paramount importance. European companies and, especially companies from the European ICT sector have to face the challenge of the increased demand for peace products. The objective of this CDE4Peace Business Brief is to analyse what kind of innovative peace products could be developed in the near future to meet the end-users needs.

The need for new peace products on the EU market



Peace products can support the building of sustainable peace and, therefore, can be of great use for the competent peacebuilding actors. Peace products have been analysed in the context of seeking new business models for peacebuilding companies (PeaceBuilding Business Criteria, 2019). In general, peace products serve populations at risk and can help strengthen the foundations of sustainable peace. Conflict-sensitive market analysis is a prerequisite for developing products and services that can increase safety for vulnerable groups and contribute to peacebuilding in fragile contexts. Examples of such products are IT and telecom solutions for early warning. Having in mind the potential dual-use of peace products companies must make sure that their customers take mitigating measures to avoid negative use. Products and services must be marketed with a peacebuilding perspective.

Basically, there are two approaches to product development. The 7-step product development framework describes the complete process of taking a product to the market (Sutton, 2021). The 7 steps of the new product development process are, as follows:



The second approach is well-suited specifically for technological products and it is based on the technology readiness level (TRL) of the product. For example, in the EU's research and innovation programme Horizon 2020 nine TRL levels are defined (H2020, General Annex G), as follows:



TRL 1- basic principles observed;



TRL 2 – technology concept formulated;



TRL 3 – experimental proof of concept;



TRL 4 – technology validated in lab;



TRL 5 – technology validated in relevant environment;



TRL 6 – technology demonstrated in relevant environment;



TRL 7 – system prototype demonstration in operational environment;



TRL 8 – system complete and qualified;



TRL 9 – actual system proven in operational environment

The two approaches are very relevant for the development of peace products. Two examples of peace products which are currently in great demand on the EU market could be given. The first example is the very much needed peace concept for the Ukraine. The war in Ukraine poses a fundamental challenge for the EU as a peace project and as a global peacebuilding actor. For the first time after World War II a large-scale military conflict takes place in Europe. In this context the EU is in need of innovative peace concepts which can bring sustainable peace in Europe.

Another much needed product on the EU market is an innovative simulation tool for training and experimentation in the area of EU peacebuilding missions and operations. Lessons learned from international peacebuilding show that training and experimentation through simulation tools could enhance the planning and execution of EU missions and operations. The recent geopolitical turbulences have brought to light the need for advanced civil-military training and simulation equipment more than ever before. The development of an EU simulation tool could be helpful for the planning and execution of a potential EU peacebuilding mission or operation in Ukraine in the near future.



A major question is to what extent European organizations (companies, universities and think tanks) are able to address the need for peace products on the EU market. The peace product providers in the EU are very diverse and come from different sectors. The development of new peace concepts can be carried out mainly by European think tanks and universities. For example, the European Union Institute for Security Studies (EUISS) which has the legal status of an EU agency could play a major role in this respect. The peace concept development process could also involve major European think tanks such as the Centre for European Policy Studies (CEPS), Carnegie Europe, RAND Europe and European universities with research expertise on the EU's Common Security and Defence Policy, conflict prevention and peacebuilding.

The development of an innovative simulation tool for training and experimentation in the area of EU peacebuilding could be done in the Information and Communications Technologies (ICT) sector. European ICT companies can be the major peace product providers in this case. A recent study by the Joint Research Centre (JRC) "Prospective Insights in ICT R&D" (PREDICT) focuses on analysing the supply of ICT and Research and Development (R&D) in ICT in Europe, with comparison to major competitors worldwide (PREDICT, 2021). The 2021 PREDICT Dataset and its accompanying reports provide a permanent monitoring tool of the ICT sector in Europe. The PREDICT Dataset provides data for the EU27 and the EU28 (including UK). ICTs have created new business models, new competitors, new markets and have transformed the production processes, eased the diffusion of new phenomena such as robotisation, automation and artificial intelligence, and have paved the way to the international fragmentation of value chains (PREDICT 2021 Key Facts Report, p.4). The ICT sector is one of the most dynamic sectors in the EU27 economy, outperforming

many other economic sectors in the EU. Very importantly, the ICT sector has been less affected by the COVID-19 pandemic than the total economy. The size of the EU ICT sector in 2018 amounted to EUR 541 billion value added (VA), employed 5.4 million people and spent EUR 29 billion on R&D business expenditure. The development of an innovative simulation tool for training and experimentation in the area of EU peace-building could be done in the ICT services sub-sector which displays the most dynamic behaviour. More specifically, the peace simulation tool could be produced in the sub-sector Computer and related activities.

The European simulation software market is expected to witness market growth of 14,5% by 2025 (Europe simulation software market, 2019). Based on Component, the market is segmented into Software (Without Services) and Services. Based on Deployment Mode, the market is segmented into On-premise and Cloud. Based on Vertical, the market is segmented into Automotive, Aerospace & Defense, Electrical & Electronics, Industrial Equipment, Healthcare and Others. The Aerospace & Defense industry has been one of the major end-users of simulation as they use modelling & simulation for numerous purposes including, training of individual soldiers, conducting joint training operations, formulating operational plans, developing doctrine and tactics and analysing alternative force structures.

Simulation software is also used extensively for training personnel in the civilian sector. It replaces traditional real-time training techniques, which have generated enormous investments for companies every year. Using simulation for training purposes helps alleviate the cost of training because companies have to invest once in the implementation of the software. Simulation software also helps companies reduce the production costs by improving

product development. In order to obtain a realistic view of a product or process under investigation or analysis, simulation-based technologies can help product developers reduce the amount of time spent on research and designing processes. It should be noted that so far simulation software has not been used for experimentation purposes. Therefore, there is a market niche for a simulation and experimentation tool, specifically in the area of EU peacebuilding. The development of such a tool could contribute to the evolution of the ICT sector in the EU in the completely new geopolitical environment shaped by the return of war in Europe.





Conclusions

This Business Brief analyses two innovative peace products for the EU market: new peace concepts and an innovative simulation tool for training and experimentation in the area of EU peacebuilding. The products could be developed

by peace product providers in the EU to meet the needs of European end-users. The development of new peace products for the EU can contribute not only to European security but also to the evolution of the ICT sector in the EU.

Nikolay Pavlov is a Marie Curie Fellow at SYNYO GmbH within the frameworks of the CDE4Peace project.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 882055 (CDE4Peace).

Disclaimer: This publication reflects only the author's view. The funding agency is not responsible for any use that may be made of the information it contains.



About CDE4Peace

CDE4Peace is a Marie Curie project funded under the EU's Horizon 2020 Research and Innovation programme (GA no. 882055). The project's principal research objective is to explore the potential of Concept Development and Experimentation for enhancing the EU's conflict prevention and peace-building policy. The project's hypothesis is that Concept Development and Experimentation could serve as a tool for politically independent, unbiased

and safe experimentation of novel concepts and approaches in the field of EU conflict prevention and peace-building. The project's research and innovation objectives are closely related to the current developments in the EU's Common Security and Defence Policy (CSDP) which forms the political framework of EU conflict prevention and peace-building. The project is hosted by the Vienna-based research and innovation company SYNNO GmbH.



References

Europe simulation software market (2019 – 2025), Marqual IT Solutions Pvt. Ltd (KBV Research), 2019

Horizon 2020 Work Programme 2014-2015 General Annexes G Technology readiness levels

PeaceBuilding Business Criteria (PeaceNexus Foundation, 2019).

PREDICT Dataset, 2021, available at: https://joint-research-centre.ec.europa.eu/predict/ict-sector-analysis-2021/interactive-visualisation-predict-2021_en

De Prato G., López Cobo M. (eds.) PREDICT 2021 Key Facts Report. An Analysis of ICT R&D in the EU and beyond (JRC Technical report, 2021).

Sutton, Mary-Rose. 'What is product development? Learn the 7-step framework' – available at: <https://www.shopify.com/blog/product-development-process>