CCEW Symposium

Symposium Report 2024

Center for
Crisis Early Warning

der Bundeswehr
Universität München

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1. Introduction "Predictive Synergies: Crisis Early Warning & Foresight"

The number of armed conflicts has increased in recent years. For 2023, the Uppsala Conflict Data Programme (UCDP) recorded 59 active, state-based conflicts, the highest figure since records began in 1946 (Rustad 2024). This trend is driven by the phenomenon of recurring conflicts, whose number has exceeded the number of emerging conflicts since the end of the Cold War. Analysis of conflict data – as for instance provided by the PRIO Conflict Recurrence Dataset (2020) – reveals that past armed conflict often recurs revolving around similar or even the same grievances, in several cases also involving new groups, alliances or incompatibilities (Jarland et al. 2020). In general, empirical evidence shows that countries that have already experienced conflict have a higher risk of being afflicted by conflict again. Moreover, conflicts can lead countries to a vicious cycle called the conflict trap where a civil war can worsen the underlying political and economic conditions, increasing the likelihood of another civil war occurring (Collier and Sambanis 2002). Consequently, in efforts to prevent future conflict investigating (potential) conflict recurrence is essential.

At the same time, in regular exchanges with policy makers, practitioners and academic researchers it becomes obvious that profound, comprehensive and well-founded crisis prevention needs an effective **match of expertise and methods**. As always, all methods in conflict research have different purposes that go along with different (ontological, epistemological and methodological) strengths and weaknesses.

The context of conflict recurrence and its diverse forms of relapse offer a great environment for the **combination of crisis early warning and foresight**. The following reasoning by Florence Gaub illustrates this argument as

> *"models (...) use historical data on conflicts and their (assumed) drivers and statistical inferences and machine learning techniques to forecast future conflict trends. (...[T]heir predictive accuracy can reach 80% – but they are better at forecasting the continuation of a conflict or spill-over of conflicts than anticipating new conflicts. (...) In sum, these models are not yet ready to serve as a basis for decision-making – here, old-fashioned qualitative analysis on drivers and possible solutions will be the safer bet for the time being."* (Gaub 2020)

The **Center for Crisis Early Warning** (CCEW) at the University of the Bundeswehr Munich mostly focuses on quantitative methods of state-based **conflict prediction**. While predicting conflicts and their consequences is not new and enjoys increasing popularity, the optimism about forecasting models in conflict research contrasts with more skeptical perspectives (Hegre et al. 2017). To this day, and for several reasons, crisis early warning models face challenges when it comes to the ever-growing expectations regarding their ability to predict future conflicts accurately (Chadefaux 2017, p. 7). At the same time, methods of **foresight** likewise enjoy growing popularity in the context of conflict prevention and conflict research.

At the University of the Bundeswehr Munich, the Metis Institute for Strategy and Foresight deals with different foresight methods to analyze strategically relevant challenges of international politics and counsel state institutions. However, both approaches have their **limits**. While crisis early warning often struggles for example with the availability of (high quality) data, model limitations, or results' transparency, foresight methods often struggle with intersubjectivity, replicability, or causation processes.

Particularly aware of the limits in quantitative crisis early warning, foresight methods could complement the efforts and inspire advances in crisis early warning. As the German government already underlined in the 2017 guidelines, integrating methods of (strategic) foresight into the toolbox of crisis early warning is essential to strengthen strategic and operative capabilities (Federal Government of Germany 2017, p. 111). Likewise, already in 2014 Lohmann and Tepel stressed that "[t]hose who combine the benefits of modeling with human judgment, allowing for the unexpected, are best placed to aid in security foresight" (Lohmann and Tepel 2014). Therefore, this year's CCEW Symposium featured the topic "**Predictive Synergies: Crisis Early Warning & Foresight**".

2. Structure and Content

The CCEW Symposium 2024 was a two-day event, taking place on September 19, 2024, and September 20, 2024. On the first day of the CCEW Symposium 2024, different panels aimed at shedding light on different approaches. The prediction-related panel contributions focused for example on models to use text as data, like natural language processing, or models to predict conflict, like negative binomial distribution models, Markov models, or a Gaussian process approach. The foresight panel contributions focused on foresight methods, like the scenarios approach. Due to the diversity of the Symposiums' panels, a wide variety of qualitative and quantitative researchers came together at the campus of the University of the Bundeswehr Munich. This respective interdisciplinarity was at the core of the interactive sessions during the second day of the CCEW Symposium 2024. The objective was to discuss the combination of crisis early warning methods and methods of foresight and to elaborate on synergies and challenges to overcome limitations of individual methods. For the sessions, the combination was limited to a scenario approach and publicly available prediction data. In total, the second day hosted three groups of max. ten participants each from different fields of expertise, including regional or country expertise, foresight expertise or prediction expertise. These encompassed participants working in governments, ministries, academia, and non-governmental organizations. The sessions revolved around selected conflicts in either the Central African Republic, India, or Kosovo and their potential of recurrence.

The interactive sessions during the second day of the CCEW Symposium 2024 were designed to bring together a scenario approach and prediction data for different conflicts to offer a frame to discuss potential synergies and challenges in the combination of the methods to overcome methodological limitations. For that, three conflicts in different regions and with different conflict objects representing different conflict types were selected in advance: (1) Interethnic conflict in Kosovo and its implications for regional stability in southeast Europe, (2) violent secessionism and conflict-related resilience in India, and (3) Russian influence in the internationalized intrastate conflict in the Central African Republic.

As time on the second Symposium day was limited, CCEW research associates conducted desk analyses and **focus group interviews** with country and regional experts, both from academia and other local institutions, in preparation of the interactive sessions. Based on the insights gained and using an impact-uncertainty-framework, up to four key factors of conflict recurrence were identified and validated or expanded by the experts. All results were recorded in a concise **concept note**. Further, a pre-selection of quantitative and qualitative data sources was provided in an app, especially focusing on state-of-the-art, open-source predictions for the use cases. All documents and the app were made available to the participants before the CCEW Symposium 2024.

In a combining format, the usual process starts with focusing on evaluating prediction data first, whereas scenarios assist in thinking beyond rather narrow time horizons and likely conflict patterns in a second step. For creativity reasons, the interactive sessions during the CCEW Symposium 2024 started with the scenario approach. First, participants discussed in small groups the pre-determined key factors for the selected conflict and gathered ideas for their possible developments in a worst and best case. They presented their results before creating one worst and one best case scenario by voting on different key factors' developments. In the next step, participants split into two groups to refine the two scenarios with a coherent narrative and identify first indicators that could be interesting to look at. After focusing on the scenario approach, participants discussed in small groups the open-source prediction data that had been provided in advance and tried to make sense of the extrapolations. They compared the prediction data with the scenarios regarding outcome and indicators. Reflecting on both methods and the process, participants gathered challenges and potentials of combining foresight and crisis early warning approaches.

3. Participation and Engagement

The panels of the CCEW Symposium hosted three or four panelists who presented their paper before opening up for questions by both the chair and the audience. The panelists represented a great variety of different institutions, including the Climate Change (In)Security Project, the DLR Space Applications Institute, Freie Universität Berlin, the German Institute for Defense and Strategic Studies, the Institute for Economic Analysis (IAE FEA), the Karlsruhe Institute of Technology, King's College London, Ostbayerische Technische Hochschule Regensburg, the Peace Research Institute Oslo (PRIO), Trinity College Dublin, University of Technology Chemnitz, and Uppsala University. In most panels the audience actively engaged in the discussions of the papers. Due to limited time, several discussions were continued during the breaks.

The interactive sessions of the CCEW Symposium 2024 were supposed to be a platform that brings together different stakeholders from governments, ministries, academia, and non-governmental organizations in an open and confidential dialogue. In addition, the number of participants per sessions was limited to a maximum of ten people as the manageable size is expected to encourage individual involvement. Overall, this approach resulted in **actively engaging participants**, creative ideas and vivid discussions.

However, as usual, the dynamics in each group depended on the participants themselves and thus differed in detail. The specific **combination of people** regarding their background played a decisive role. Participants were free to choose from the three different groups according to the use cases. Eventually, a certain imbalance resulted as in one group academic participants dominated the group, while in another group ministry officials made up the predominant majority in the group constellation. These constellations naturally affected the **dynamics of engagement**. For example, in the academia-heavy group participants addressed commonly known scientific discussions for instance about methods and their limits. In other groups, discussions were dominated by personal experience on site. In all groups, as expected, individual participants decisively steered the discussions as they often took first initiative or had a strong presence in the group.

Despite some homogeneous elements in the group constellations, stakeholders from different professional backgrounds and disciplines managed to interact anyway, particularly in the smaller groups. In different parts of the process, different participants contributed according to their strengths. This was especially the case when participants brought expertise in either foresight methods or crisis early warning. Due to that, participants discussed untypical and new approaches and reached interesting conclusions.

4. Key Learnings and Insights

All participants agreed that in theory combining crisis early warning and foresight holds a lot of potential in the prevention of conflict. In practice however, the interactive sessions perfectly illustrated that there remain several challenges. A survey sent to all participants in the aftermath of the interactive sessions helped assess the event. Further, feedback from the debrief meetings by the facilitators and CCEW research associate supported the evaluation. In the following, some key learnings and insights shall be emphasized in more detail.

First of all, **exchange formats** or platforms where all relevant stakeholders in crisis early warning meet seem rare, both within professional fields and between them. For instance, a classical disciplinary partition in academia itself tends to separate researchers in crisis early warning and experts in foresight. Likewise, academics do not necessarily work together with decision makers or policy makers. This impacts a comprehensive approach. Participants in the interactive sessions repeatedly stressed the need for comparable opportunities and formats in order to advance united efforts and improve results. Participants positively underlined again in the survey the discussions, the interdisciplinary composition, and the interactive format.

Secondly, **communication** and **interpretability** of results are key issues. The discussions during the interactive sessions underlined that for instance conflict predictions are not always intuitive for those who do not deal with them on a daily basis. While some participants addressed genuine doubts and mistrust towards data and solely quantitative approaches, others struggled with less quantitative pathways. Creating a common understanding about the approaches, their gains and pitfalls was a central component of the interactive sessions.

Thirdly, specific **methodologies** in combining different approaches like crisis early warning and foresight are actually lacking. In the preparation of the interactive sessions, it was already striking that a combined approach seemed theoretically well-based, however concrete examples are still scarce. A few contributions during the first day of the CCEW Symposium 2024 addressed so-called hybrid approaches and inspired participants for the interactive sessions the following day. This introduction to both approaches and their combination during the first day was positively stressed in the survey as well. While both methods advanced individually in a decisive manner over the past decade, methods overcoming their differences in order to profit from both insights are to be expanded.

5. Challenges and Areas for Improvement

The CCEW Symposium 2024 was the first attempt to adapting the Symposium's concept in order to combine panels on the first day and more interactive formats on the second day. While the event was a success and feedback overwhelmingly positive, nevertheless lessons learned shall be reflected. Insights gained based on the participants survey as well as CCEW members' experience will be of interest for planning next year's event.

First of all, both facilitators and participants advised in the survey and in debriefing meetings to allocate more **time** to the interactive sessions. Further, suggestions about choosing a different day of the week were made. This year the interactive sessions were scheduled on a Friday. To have the chance of returning home for the weekend more or less easily, the interactive sessions already ended mid-afternoon. As a result, the ambitious program took a lot out of the participants. Some participants felt rushed through the sessions or wished for more time in discussions and critical steps during the processes. Also, the restricted scope made it necessary to exclude some methodological steps, especially those that are time-consuming but that might have brought up interesting debates and more concrete ideas beyond superficially scratching.

While the interactive sessions deliberately addressed and welcomed participants from different disciplinary and professional backgrounds, early career as well as senior researchers or officials, the interactive sessions might profit even more if the **diversity of participants** is integrated more explicitly. This was also a concrete suggestion mentioned in the survey. As different participants brought varied expertise to the sessions, more opportunities for exchanges within the group or maybe even between groups of different the sessions could be interesting to consider. Moreover, the participants were able to freely chose the interactive sessions they wanted to work in. In practice, this caused a slight imbalance in several groups at the expense of diverse compilation. Although it was quite interesting to compare different dynamics between the groups, from a participant's perspective it might be worth considering more mixed groups. However, the CCEW's impact on who registers and participates in the sessions is obviously limited.

Besides, comprehensive **preparation** is essential to focus the working process and discussions in the interactive sessions on the outputs. This is true in particular, as the interactive sessions were designed to apply methods to a specific context and discuss potential synergies and challenges, they were not designed to be a methodological or regional studies' workshop or training.

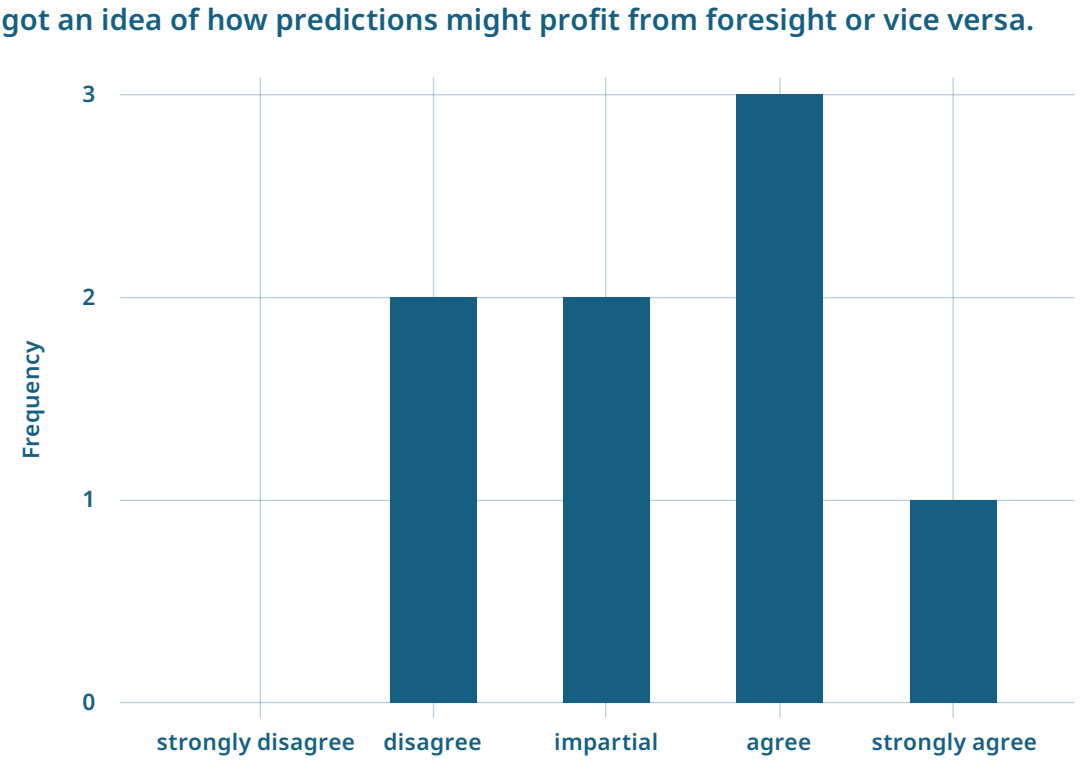

Figure 1 *Rating Referring to Finding Synergies between Predictions and Foresight*

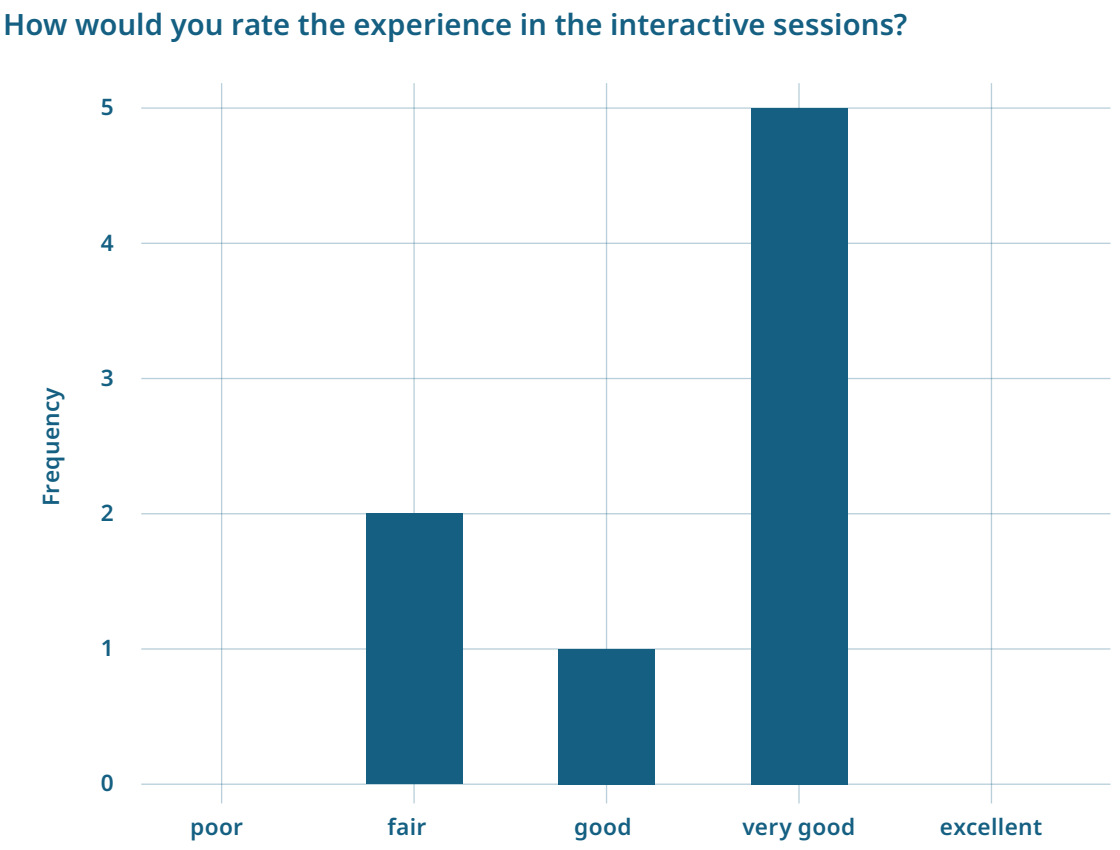

Figure 2 *Overall Rating of the CCEW Symposium 2024 Interactive Sessions*

For the participants, this consisted of content-related preparation as well as method-related preparation. Unfortunately, due to some technical difficulties, some participants did not receive the documents and preparatory materials in advance. As a consequence, several participants reviewed the concept notes and data sources only during the sessions without enough time to give ideas or impulses serious consideration. In addition, as most participants did not have any expectations towards the interactive sessions, next time it could be helpful to clarify more precisely what is expected from the participants and to advertise the objectives more prominently in advance. An online pre-meeting or a pre-check-in regarding expectations could be worth a try.

6. Conclusion

Overall, the CCEW Symposium 2024 was a successful event that offered great opportunities for open exchange, interdisciplinary learning and generating creative ideas to overcome methodological challenges in crisis early warning and foresight. The interactive format on the second Symposium day successfully encouraged participants to **engage actively** and involve themselves in vivid discussions. In different parts of the process, different participants contributed according to their strengths or respectively profited from other participants' knowledge. The discussions and insights gained during the interactive sessions inspired first impulses to further advance approaches that combine different methods in the field of crisis early warning and foresight. So, investigating synergies seems to promise certain potential to overcome methodological limits. In total, the interactive sessions met their overall objective. And while the survey also confirmed that the interactive sessions were a great kick-off for further exploration, there are several starting points to expand and improve the concept for next year, especially regarding the allocated time frame.

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