

# The emerging Better Practice Guide Initiative

*A fresh approach to standardisation in line with the needs of practitioners*

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## Key words

Standardisation, Better Practices, Pre-Standardisation, Emergency Medical Services, Disaster Risk Resilience, eHealth, Energy Efficiency.

## Background

Presently, the [NO-FEAR project](#) (2019 – 2023) is looking at establishing a common understanding of the needs and innovation potential of the identified operational gaps, primarily in the European Emergency Medical Services sector. The project brings together a pan-European network of emergency medical care practitioners, suppliers, decision and policy makers to collaborate and exchange knowledge, good practices and lessons learned. [TFC Research and Innovation Limited](#), is a partner in NO-FEAR and leads in the area of standardisation, working in conjunction with the Netherlands Standardization Institute ([NEN](#)) and external standardisation development experts throughout the undertaking. The NO-FEAR project engages with a number of related projects in the same space. Collectively, they have a focus on the determination of common needs and gaps across their respective projects. One important project is the [ENCIRCLE project](#) (2017- 2021). This project was aimed at improving resilience of CBRN (Chemical, Biological, Radiological and Nuclear) events and threats in Europe with a focus on needs for strengthening competitiveness and efficiency. ENCIRCLE has five key objectives aimed specifically at promoting innovation and business development, filling the market gaps through its implementation. Standardisation is a main focus of the ENCIRCLE project and it was closely aligned with the on-going work of the NO-FEAR project.

Standards can help the uptake of innovations and new market entrants. However, the matter of standardisation is not generally seen in a positive light either by First Responders or Emergency Medical Services (EMS) operatives. *During the course of the ENCIRCLE project, it was reported that operational practitioners in the European Disaster Risk Resilience (DRR) and Emergency Medical Services (EMS) have difficulties when it comes to the subject of standardisation.* It was also reported in the ENCIRCLE project that *many standards are poor and outdated and that they have little relevance to current capabilities.* (Ref: ENCIRCLE Market Survey, 2021). Societal and civilian standards may exist, but they are not necessarily known and/or being applied by those expected to use them. Additionally, there are many non-coordinated pre-standardisation initiatives that have resulted in generating fragmentation and confusion in these areas. An example of fragmentation is highlighted in Table 1.

|                                   |   |
|-----------------------------------|---|
| <a href="#">EN-ISO 22300:2021</a> | Security and resilience – Vocabulary            |
| <a href="#">DIN CWA 17335</a>     | Terminologies in Crisis and Disaster Management |

Table 1 - Fragmentation in the perceived arena of standardisation

Key standards such as EN-ISO 22300, complemented by the EN 17173 European CBRN Glossary, exist. They focus on defining terminology in an International and European context. Use of common language is crucial for the CBRNE and Emergency Medical Service processes. Yet, it seems peculiar that pre-standardisation documents are often proposed that could be perceived as unnecessarily challenging to existing standards in EU funded projects. Their need is questionable. This is exemplified in Table 1, i.e., the delivery of DIN CWA 17335 presenting its terminology for crisis and disaster management, but the standard already exists (EN-ISO 22300:2021). There is an opinion too that EU research projects do not sufficiently take onboard the existence of established standards and the importance of compliance. Perhaps, the drivers of these deliverables are not the people who should be driving. The first port of call should be to the relevant Technical Committee before the development of a CWA is sanctioned for production. What we know is that confusion in the area of standardisation exists across the CBRN domain in particular. In the important citizen and societal security area, this is not warranted. The ENCIRCLE project has taught us much, and perhaps fresh-thinking is needed in the area that pre-standardisation activities reside.

Noticeably too, from the results of the ENCIRCLE project (Ref: ENCIRCLE-WP4-INT-D2), as previously mentioned, it was recognized that some existing standards are out of date, which has been attributed to advancements of technology. This too is for wider applicability and not just for the CBRN and EMS communities. We learnt through a series of NO-FEAR workshop events, that Frontline and EMS operatives have shown little interest in the subject of standardisation. However, through face-to-face discussions, when the subject of applying alternative approaches was discussed and based on the principle of better meeting their needs with their understanding, then their interest was secured. The expert matters. It is they who must come first and be to the forefront at all times. The Better Practice Guide Initiative is now under development. A new approach, led by TFC Research and Innovation Limited, embraces fresh-thinking that empowers the operative in the process. This is perhaps well captured by Professor David Crouch (3M, Global Subject Matter Expert - Application Engineering - Defence & Public Safety), who said that *'In a dynamic first responder context, standards are too prescriptive and lack flexibility to meet resilience requirements'*. Flexibility is important; First Responders and EMS operatives having the flexibility and freedom to organise themselves to produce needed and harmonised operational procedures that works for them and without incurring high costs, is indeed very appealing. The Better Practice Guide Initiative is an indictment of that way of thinking. Presently, the way we do things in the field of pre-standardisation is questionably, no longer suited to the needs of many First Responders and EMS operatives. For some, the existing approach is not seen as an effective mechanism for standardisation development. The European standardisation organisations, CEN/CENELEC, promotes the CEN Workshop Agreement pre-standardisation approach, which is commonly referred to as the CWA mechanism. It has been around for over twenty years and the percentage of CWAs that resulted in becoming a national/European standard is not considered to be on the high side. However, there is also an opinion that the voice of the experts has been lost and could be seen as a contributing factor to fragmentation. The production of CWAs, without first contacting the relevant Technical Committee for approval are not necessarily in the best interest of First Responders and EMS operatives. Both confidence and integrity of the pre/standardisation process is perhaps, tarnished as a result. A new arena to define better practices without the direct involvement of standardisation people is emerging.

## The Better Practice Guide Initiative

The **Better Practice Guide initiative** is driven and empowered by practitioners and operatives, i.e., The Users. In the NO-FEAR project, we listened, learnt and presently are acting on building a structure for a community that enables frontline operatives and EMS practitioners to develop Better Practice Guides (BPG) that work for them. Through the design of the Better Practice Guide Initiative, the empowerment process may not necessarily lead to a full standard. This is intentional. The authors of the BPG may strategically decide that their individual Better Practice Guide already is suitably fit for purpose. A more flexible approach is applied to meet both the practitioner and technological community's requirements. The initiative for Better Practice Guides, seeks more Users to get involved to deliver BPGs that work for them. By increasing the number of organisations to define their Better Practice Guide, more common approaches will start to emerge. More of the right people (i.e., the Users) are in fact taking big inward roads to embrace a route to standardisation. Interoperability too, is a key focal point of the BPG Initiative. Presently, we cannot lose sight of the importance of interoperability. The BPG repository is at [tfcengage.com/#guides](https://tfcengage.com/#guides) and it will grow with time. Free for use and reference, once approved, the individual BPGs are publicly available at User's discretion. The development of a BPG is not tied to any mechanism promoted by national standardisation authorities. Instead, it is seen as an expression of the following principals:

- "in practice but not necessarily ordained by law"
- "in practice or actuality, but not officially established"

The BPG Initiative sits at the pre-standardisation stage of the overall standardisation process. BPGs are not under the remit of standardisation bodies; individually, they are entities in their own right and reside in the fresh thinking initiative. The Better Practice Guides maybe used by Frontline and EMS operatives in line with the principles, outlined above and at the User's complete discretion. They may serve too as reference documents for quality assurance purposes and to further help with the outputs of scientific research activities and reports.

Author(s) of an individual BPG, who wish to progress their Guide into a full standard, should contact directly the appropriate Technical Committee at local, national, Europe or International levels. Through engagement with the relevant Technical Committee, it may contribute to an existing standard, in line with the protocol for standardisation process development. The relevant Technical Committee (TC) can advise and support. Likewise, as part of the BPG procedures, proactive Technical Committees, should be aware of the existence of individual BPGs. It will be up to individual TCs to make contact with the author(s) of the Guide should a need or a gap in the market, in full or part, be identified that warrants the production of a full standard.

Although engagement with CEN/CENELEC Technical Committees is seen as an integral part of the process, we must be clear that the development of a BPG is independent of any national standardisation institution. This may be viewed as radical, but is deemed necessary, as the new initiative is based on the empowerment of the Users for the development of their Guide document. The BPG initiative provides flexibility for it to work for them. This does not of course rule out the involvement of national standardisation institutions at a later point in the process, but under the BPG initiative, the drivers are the Users.



Figure 1 – No-Fear project Better Practice Guides (@120322)

### Existing Better Practice Guides

Initial Better Practice Guides reside in the [tfcengage.com/#guides\\_repository](https://tfcengage.com/#guides_repository).

### BPGs from the NO-FEAR Project

The software development of the data ecosystem for Disaster Risk Resilient (DRR) was supported by the production of an initial BPG document in NO-FEAR. It was the result of a collaboration between three EU projects in the operation security domain, namely, NO-FEAR, [STAIR4SECURITY](#) and [ENCIRCLE](#). The ecosystem involves the software development of an API (Application Programming Interface). It generated a programming interface where common data can be exchanged across the three related platforms of these projects. The BPG document defines the programming interaction for these platforms, so that other platforms in a similar space know how to connect. Interoperability is to the foreground of this BPG. Specifically, the DRR Better Practice Guide focuses on the areas of Chemical, Biological, Radiological, Nuclear and explosives (CBRNe) and Emergency Medical Services (EMS) and addresses:

- **Resource Description** – Vocabularies to describe the different types of resources (i.e., standards, pre-standards, better/best practice guidelines, operating manuals, research reports, etc.) to enable different platforms in the target community or ecosystem to exchange resources.
- **Platform Services** – Agree on a minimal set of APIs (Application Programming Interfaces) to be implemented by any platform operating in the target community through which requests for services and data exchange can be made.
- **Security & Access** – Accessibility Profile for Resources and Services – Set of security specifications to be associated with resources and services maintained in the platforms.

The shared common data and knowledge across the three platforms, better supports the target users and operational decision makers. It also enables other related research platforms to connect, which

may set a precedent for engagement with future Horizon Europe research platform projects and thus, taking full advantage to strengthen project results and benefits.

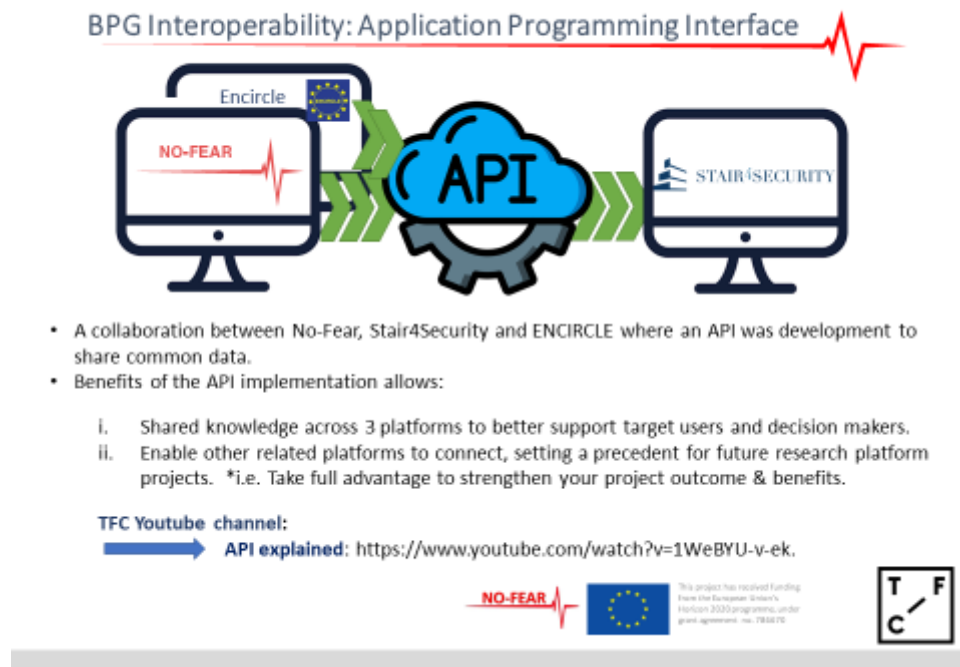


Figure 2 – No-Fear API Better Practice Guides

On YouTube (via TFC Research and Innovation Limited) the application of the API is demonstrated at:

<https://www.youtube.com/watch?v=1WeBYU-v-ek>

It may be helpful to interested parties who wish to connect with these research platforms.

Another BPG produced in the NO-FEAR project is centred on Damage Control Strategy. It is applicable to Emergency Medical Service professionals, specifically when dealing with a severely injured patient. Haemorrhage is the leading cause of preventable death in trauma patients in the first 24 hours. In this Better Practice Guide, which is led by the Università Cattolica del Sacro Cuore, Italy, it describes how to treat the patient in resuscitation and surgery mode. Damage Control Strategies are recognized for their systematic approach to the management of the trauma patient with severe injuries, that starts in the emergency room, including early blood product transfusion, reduced crystalloid fluid administration and permissive hypotension in order to prevent the lethal triad. The Damage Control Surgery looks at all available technique to obtain a rapid control of haemorrhage, contamination and temporary closure, followed by resuscitation in Intense Care Unit and subsequent re-look and definitive repair once normal physiology has been restored. Both works in synergy and in parallel. The goal of this Better Practice Guide is to show how to restore normal physiology rather than just normal anatomy.

### Wider Applicability

During the development of these Better Practice Guides, the scope of the emerging initiation was assessed. A key question raised, was:

***Is the initiative restricted solely to the European Disaster risk resilience and Emergency Medical Services community?***

To obtain an assessment, interest towards the BPG initiative was obtained in the eHealth and separately, the Energy Efficiency domains. The European projects, namely the SPEEDIER project (2019-2021) and the FAITH project (2020-2023) expressed their desire to move towards the Better Practice Guide approach in light of the aims of the initiative. Likewise, the BPG approach was discussed with separate executive agencies of the European Commission, namely, EISMEA and HADEA.A., who sanctioned the change of direction in their respective Grant Agreements.



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|---|---|
|  | <p><i><u>SPEEDIER</u> is a highly innovative one-stop-shop solution that applies an integrated approach to energy management, providing information, advice, capacity building, energy auditing, financing and implementation of energy efficiency solutions and monitoring of impacts.</i></p> |
|  | <p><i><u>FAITH</u> is aimed at providing an Artificial Intelligence application that remotely identifies depression markers, using Federated Learning, in people that have undergone cancer treatment.</i></p>  |

Table 2 - European Projects used during the assessment

For both projects, the pre-standardisation CEN workshop agreement route was replaced by the Better Practice Guide. Led by ITeC, Spain, in the SPEEDIER project, they saw the value of the BPG route and the resultant document for their business. It was developed in a way that they were comfortable with. The development of the SPEEDIER BPG, demonstrated **flexibility**, providing the **freedom to define and control the document outcomes** that worked to suit their needs. It was developed too **without incurring high cost**. They used the BPG document for software system engagement purposes with other interested parties in their work, product and services. The involvement of a national standardisation body, including their cost, was not necessary for delivery of their BPG.

**The BPG from the SPEEDIER Project**

Looking at the SPEEDIER Better Practice Guide, it focused on an important area of interoperability and was delivered by ITeC, - i.e., The Catalonia Institute of Construction Technology Foundation (Spain), and as mention, with the flexibility to work for them. Their BPG focuses on the integration component of the SPEEDIER software energy saving measurement tool. It was also produced in line with the European Commission Directive [COM (2017) 134] for the European Interoperability Framework – Implementation Strategy. According to Licino Alfaro, Head of the Department of Sustainable Construction, ITeC:

*"The SPEEDIER Better Practice Guide, through the API engagement mechanism will enable other software related companies to engage with us and therefore, be in a position to know the investment of energy rehabilitation actions and their payback period in line with ITeC engagement methodology. In addition, it will be permissible to have access to databases of buildings and their savings in accordance with the previously established actions, therefore, they will be able to establish reference values for energy rehabilitation actions and know the actions with a better return, energy and economic."*

Further reading on the SPEEDIER Better Practice Guide is [here](#).

### The BPG from the FAITH Project

The [FAITH project](#), on the other hand is more complex, but they too are in the process of developing a BPG that works for them. FAITH presently works across 11 related projects in the #CS\_AIW, - i.e., The Cancer Survivorship – AI for Well-being Cluster, which collectively and individually, addresses post-cancer treatment survivorship, including mental health, through patient digital health engagement. The Cluster was devised by [TFC Research and Innovation Limited](#). These projects take advantage of and use information and communication technologies to improve prevention, diagnosis, treatment, monitoring and management of health-related issues, as well as to monitor and manage lifestyle-habits that impact health. Digital health is innovative. The technology can be used to improve access and the quality of care, as well as to increase the overall efficiency of the health sector. The individual projects in the Cluster include:

- **MENHIR** – working on mental health monitoring through interactive conversations;
- **LIFECHAMPS** – focused on integrated cancer care for the older cancer champions based on Big-Data and quality of life behaviour;
- **ONCORELIEF** – working to improve the quality of life and developing mobile applications for patients and for clinicians;
- **PERSIST** – developing BIG Data platform, mHealth application and multimodal sensing network to improve the quality of life of cancer survivors;
- **QUALITOP** – monitoring multidimensional aspects of quality of life after cancer Immunotherapy and developing an Open smart digital platform for prevention and patient management;
- **CLARIFY** – developing actionable knowledge for improving cancer long survivors’ quality of life;
- **ASCAPE** – working on an AI-powered framework, clinical testing and patient engagement;
- **REBECCA** – developing a patient mobile application and a web browser plugin to improve intervention of care choices and analyse data to better understand how treatment affects quality of life;
- **CAPABLE** – aiming to develop a support system for improving the quality of life of cancer home patients by combining technologies with socio-psychological models and theories;
- **BD4QoL** – Big Data for Quality of Life – living after head and neck cancer;
- **FAITH** – addressing post-treatment consequences of anxiety and depression through Artificial Intelligence based technologies.

Work is ongoing in the development of the Clusters’ Better Practice Guide that is focused on the development of common dataset across these projects, which is in line with the [European Commission Cancer Mission Directive](#) for the common good of the patient, care-givers and clinical experts involved in post-cancer treatment patients. The undertaking is validating the effectiveness of the BPG Initiative in complex settings and across eleven projects. Many different cancers are involved across the Cluster and the BPG provides a vehicle to define the Cluster’s datasets for present use and for future platforms and projects.

### The CEN/CENELEC Workshop Agreement – A perspective

The flexibility enjoyed through the development of Better Practice Guides is in direct contrast to the CEN workshop agreement (CWA) route, which for some is believed to be a rigid process, controlled by 3<sup>rd</sup> parties and can be costly.

The CWA mechanism has been around for more than 20 years. Historically, the outcomes of many CWAs never reach recognised standardisation status.

Presently, the delivery of a CWA could be viewed as a means to produce a document that has avoided early engagement with the appropriate CEN/CENELEC Technical Committee until late in the process. Although a CWA is considered a pre-standardisation document, it is wrong to view it as a standard, which is often the case. Individual CWAs can be sold by national standardisation authorities. This does not help to alleviate the confusion and fragmentation, which has been explained above. Given the poor historical results of CWAs being advanced to full standards, there is an argument to consider them as 'Documents of interest to some' or 'Outcome of workshops', but a CWA is not as a 'Pre-standardisation' document. Users purchasing a CWA from a national standardisation body would be excused for believing that they obtained the correct standardisation document, but given the issue highlighted in Table 1 (above), this may not be the case. Thus, confusion in the field by the purchaser could be realised. Some readers, may considered them to be little more than an expensively produced document that can instil confusion and fragmentation into the standardisation arena.

CEN/CENELEC and the involved individual national standardisation authorities (NSB) are often in economic terms, the beneficiaries of the development of a CWA. It is understood that these organisations would normally charge the promoter of individual CWAs for their involvement in the process. It is arguable too that the involvement and contribution of the CEN/CENELEC and the participating national standardisation body in the process is limited. Additionally, should the process not conclude successfully, the promoters' cost may not necessarily be recuperated. It is the promoter who does the bulk of the work. Many CWAs are often instigated through European Commission funded projects and not through, or at least the approval of, the relevant Technical Committee. This is not ideal. This is an area in need of attention as the outcomes of CWAs can add to the confusion and fragmentation of standardisation. This must stop. The question now being raised is how does the production of individual CWAs contribute to resolving the standardisation fragmentation issues, particularly associated with CBRNE and Disaster Risk Resilience? Indeed, is the CWA process, right? Perhaps going forward, they should be seen as merely 'Documents of interest' or 'Outcome of Workshops', or something similar that make it totally clear that it is not a standard nor a pre-standardisation document.

### Better Practice Guide Initiative Governance

The controlling body of Better Practice Guide aims to promote and generate further interest in the emerging initiative. The BPG Body will exercise a coordinating, executive and management function. Its' internal function and processes are based on a number of key principles underpinning good governance: i.e., clear roles and responsibilities, a strong commitment to performance management and compliance with a legal framework, clear accountability mechanisms, a high quality and inclusive regulatory framework, openness and transparency and high standards of ethical behaviour.

The direction for adherence to the imposing seven fundamental principles for the development of a Better Practice Guide document, are explained as follows:



## Underlining BPG Principles

Fundamental principles for the development of a Better Practice Guide document.

- I. Due process.** Decisions are made with equity and fairness among participants. No one party dominates or guides Better Practice document development. Processes are transparent and opportunities exist to appeal decisions. Processes for periodic review and updating are well defined.
- II. Broad consensus.** Processes allow for all views to be considered and addressed, such that agreement can be found across a range of interests.
- III. Transparency.** BPG management body provide advance notice of proposed Better Practice Guide development activities, the scope of work to be undertaken, and conditions for participation. Easily accessible records of decisions and the materials used in reaching those decisions are provided. Member comment periods are provided before final Better Practice Guide approval and adoption.



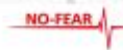
This project has received funding from the European Union's Horizon 2020 programme under grant agreement no. 7934275



## Underlining BPG Principles

**IV. Openness.** Better Practice Guides are open to interested and informed parties.

- V. Collective Empowerment:** Participant collective empowerment work within the realm of providing interoperability, scalability, stability, and resiliency; serve as building blocks for further innovation; and benefit e.g., humanity, operations, business effectiveness, frontline operatives, practitioners, emergency medical services, European critical infrastructure, citizen and society.
- VI. Availability:** Better Practice Guide specifications are made accessible to all for implementation, deployment and adoption ([tfcengage.com/#guides](https://tfcengage.com/#guides))
- VII. Voluntary:** Used on a voluntary basis. Its' success driven by an emerging community.



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The BPG Body is led by Tom Flynn (TFC Research and Innovation Limited). Collectively, the Body (members are below) contributes to governance by providing coordination, oversight, advice and strategic orientations on management and implementation issues and in the short term, will work in a voluntary basis in support of the growth of the initiative. Members include:

**Better Practice Guide Initiative** is overseen by a Body on its' development and progression.



Tom Flynn

Innovation & Business Development Manager, TFC. Creator of the BPG Initiative.

Patricia Comparand



Ministère de l'Intérieur (France) Cabinet du secrétaire généra

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Periodically, they meet to oversee the activity and advance the development of the initiative.

### Better Practice Guide Timescale

The BPG initiative is at feasibility stage, which is due to complete in Q3 2022. Governance and procedures will be defined thereafter with the aim to formally launch the initiative in Q1/Q3, 2023.

### Better Practice Guide Initiative Summary

The emerging Better Practice Guide initiative is a new fresh-thinking approach that gives an organisation an alternative pre-standardisation route. BPGs are entities in their own right. Individual BPGs do not necessarily need to evolve to a full standard. The BPG's are in the hands of the Users and has the purpose to meet their needs. A flexible approach is applied. Existing BPGs reside at [tfcengage.com/#guides repository](https://tfcengage.com/#guides). Each BPG is freely available for use and referenced completely at the discretion of the User. Without the BPG route, it is clear that many organisations may never venture into the development of documents of this nature. BPG's, however, empowers them and at low cost. It is they, who manage and evolve the BPG document. The development of a BPG document is produced in a manner that works best for them and their operations. It applies the fundamental principles of "in practice or actuality, but not officially established" as a standard and is applied at Users' discretion. That is the ethos of the BPG initiative. In this way, it is anticipated that more organisations will take up the Better Practice Guide route having the flexibility to produce the document that works for them without much rigor and high cost. The newly emerging approach will instigate the process of more organisations to get involved in the standardisation process and help bridge operation gaps in standardisation, identified in the field and EU research projects, such as ENCIRCLE and NO-FEAR.

### Further information

If you would like to know more about the Better Practice Guide Initiative, please direct your queries to [contact@tfcengage.com](mailto:contact@tfcengage.com).

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