

# How to Present Outcomes from a Technology Forecasting Project

## 1 Introduction

This white paper describes an important aspect of the FORMAT (FOrecasting and Roadmapping of MANufacturing Technologies) methodology. How to present outcomes from a technology forecasting project has been considered as a separate and important stage in the FORMAT methodology. The end user will consider a technology forecast worthwhile their time only if the forecast is easy to understand and can be applied for making decisions. The end user considered in this case is a decision maker in a corporate context.

Let's start with the scenario in mind. There are two parties involved - **decision maker (DM) and technology forecasting team (TF team)**. The venue is a reasonably sized corporate office, where the office of the DM is present. To set up the context of this scenario: a TF team presents their technology forecasts to the DM. The difference in the philosophical approach of the DM and the TF team can be explained. The DM has a big picture approach to the technology, whereas the TF team has a detail oriented approach. Additionally, the DM and TF teams have different requirements and priorities in the above context. These requirements and priorities will be spelt out in the subsequent sections

## 2 Decision Maker Perspective

The DM is usually a Chief Executive Officer (CEO), Chief Technology Officer (CTO) or a equivalent positions in senior management, who will be able to make decisions to fund projects such as technology forecasting projects. This person is usually very busy with a lot of different responsibilities and is **always pressed for time**. The results of a forecast should therefore be presented in a form as short as possible, with a high emphasis on the potential impact of the forecast. The outcomes first need to **grab the attention** of the decision maker. If they look interesting enough, the decision makers will make more time to study the results further.

The DM will always need to keep in mind to **'please' the other stakeholders** in the company. Some of the key questions that the DM will have in mind are: Will the customers accept any changes recommended by the forecast? Do they have **sufficient arguments** to convince the shareholders of the direction to take?

To enable decision making, the main points of the forecast should be made clear immediately but the forecast should also be translated into specific recommendations (next steps) with associated efforts and benefits. The end result should be very clear spelling out the benefits of a certain decision, the efforts and investments that will be needed and whether the benefits will be reaped on a short term or a long term. The more explicit the benefits are made, the more value the decision-maker will give to the forecast itself.

## 3 Technology Forecasting Team Perspective

The TF team would have put a lot of time and effort into the making of the forecast. They, therefore, would like to **present as many details** about the process as possible and would find the process of retaining and trimming out information necessary to present the reports, very difficult.

Since the TF team will present a very specific outcome with very specific recommendations, there may be harsh consequences due to bad decisions taken as an outcome of misinterpretation of the results. The TF team has their **reputation at stake** (Was the forecast really useful for the decision maker or not?) and their future careers to think about. They therefore want to present not only the results and main recommendations, but also the process of arriving at these results and the reasons for interpreting the results in such a manner. Sections 2 and 3 are summarized in Table 1.

DM	TFT
Investment	Reputation
Decisions	Future
Shareholders, customers	Careers
Time	Presentation time

Table 1. What is at stake for a decision maker (DM) and a Tech Forecasting Team (TF Team)? Highlighted points are the most important and conflicting requirements

#### 4 Requirements of the TF Outcomes Presentation

Combining the perspectives from the above sections, there can be a list of requirements for the outcomes presentation meeting, as given below:

- Succinct, clear, unambiguous information
- Interesting enough to retain focus on the presentation (preferably pictorial)
- Easy to understand
- Portable (can be checked on-the-go, e.g. on laptop or tablet)
- Details on demand (if interested the details should be there)
- Non-linear<sup>1</sup> (Link driven navigation similar to web pages)
- Easy to build the report (learning curves to be non-existent or minimal)
- Flexible enough to accommodate graphs, charts, images, and other types of documents

The modality of presentations can either be slides or documents, but can also be extended to a poster. The above mentioned modalities can take into account the above features.

DM	TFT
simple to understand*	easy to construct
short and precise	detailed
portable	flexible
interesting	

\*Even without the presenter and without expertise in the field

Table 2. The answer to what a TF report should be for the two parties involved. The most important criteria are encircled.

#### 5 Elements of the TF report

##### Decision maker perspective

In essence, the technology forecasts and recommendations will be presented through an introductory (e.g. PowerPoint™) presentation with only a **few slides that capture the main points**. Each slide will have **notes** to provide some extra information allowing better interpretation or understanding of the content in every slide. A

<sup>1</sup> Some sections could contained more detailed notes that the reader may browse if they are interested

**summary report** can be generated directly from the presentation, without any added effort, simply by capturing the slides with the notes below in a PDF form. An **executive summary** will be available to allow for the decision-makers to skim through the salient points of the forecast.

The presentation will be **link-driven** to allow for non-linearity. Each slide will have hyperlinks that connect to different parts of the report, where more details can be found on the methods that were used, the intermediary outputs, the way the results were interpreted etc.

The presentation will be **tablet-friendly**, with icons and other elements in the report being “human-finger friendly” on a tablet interface.

*TF Team perspective*

A **template** will be provided for the presentation, so that minimum requirement from the TF team will be to input the specifics of the forecast project in a simple manner. If needed, this template may be **wizard-driven**, providing step-by-step guidance on how to assemble the report by using the results obtained in the different stages of the FORMAT methodology.

The **notes** in the PPT will provide extra information for the decision maker and will also serve as speaker notes, helpful for the TF team to build the story while presenting results.

Through the links in the presentation slide deck, **additional slides** will be available containing all the data and results that will go into building the report. For the decision maker, the additional slides data will be optional, but they will be made available for anyone interested. Flexibility is an inbuilt feature.

DM	TFT
Few slides with notes*	Template, wizard driven
Exec Summary	PPT speaker notes
Link driven for non-linearity	Additional slides, formats
Tablet friendly	Flexibility inbuilt

\*Exported to a PDF for offline viewing

Table 3. All elements of the TF report enumerated with the different perspectives. Most important criteria are encircled.

## 6 First Prototype

A prototype was developed taking into account all the above attributes using Powerpoint™. The screenshots of the PDF and the PPTX version are shown in Fig. 1. The first prototype was developed mostly with data from vacuum forming test case that was described in an earlier [white paper](#). The prototype should be **further developed and tested with real data** from other reports.

The current prototype was developed for the specific context given here, with a TF team presenting outputs to a decision maker. There are **other scenarios that may be considered**, e.g. an intermediary decision-maker presents the results to a reporting manager, or post funding decision when the TF team educates the technology manager on the next steps, and so on and so forth. Both the presentation and report therefore need to be flexible enough to accommodate these other scenarios.

The template currently provides no room for a **translation of the results into specific recommendations** (or next steps) that can and should be derived from the technology forecast. It is preferable to include these recommendations as very concrete actionable steps. The presentation and report should also include potential implications of the recommendations from various perspectives such as marketing, sales, environmental impact etc.

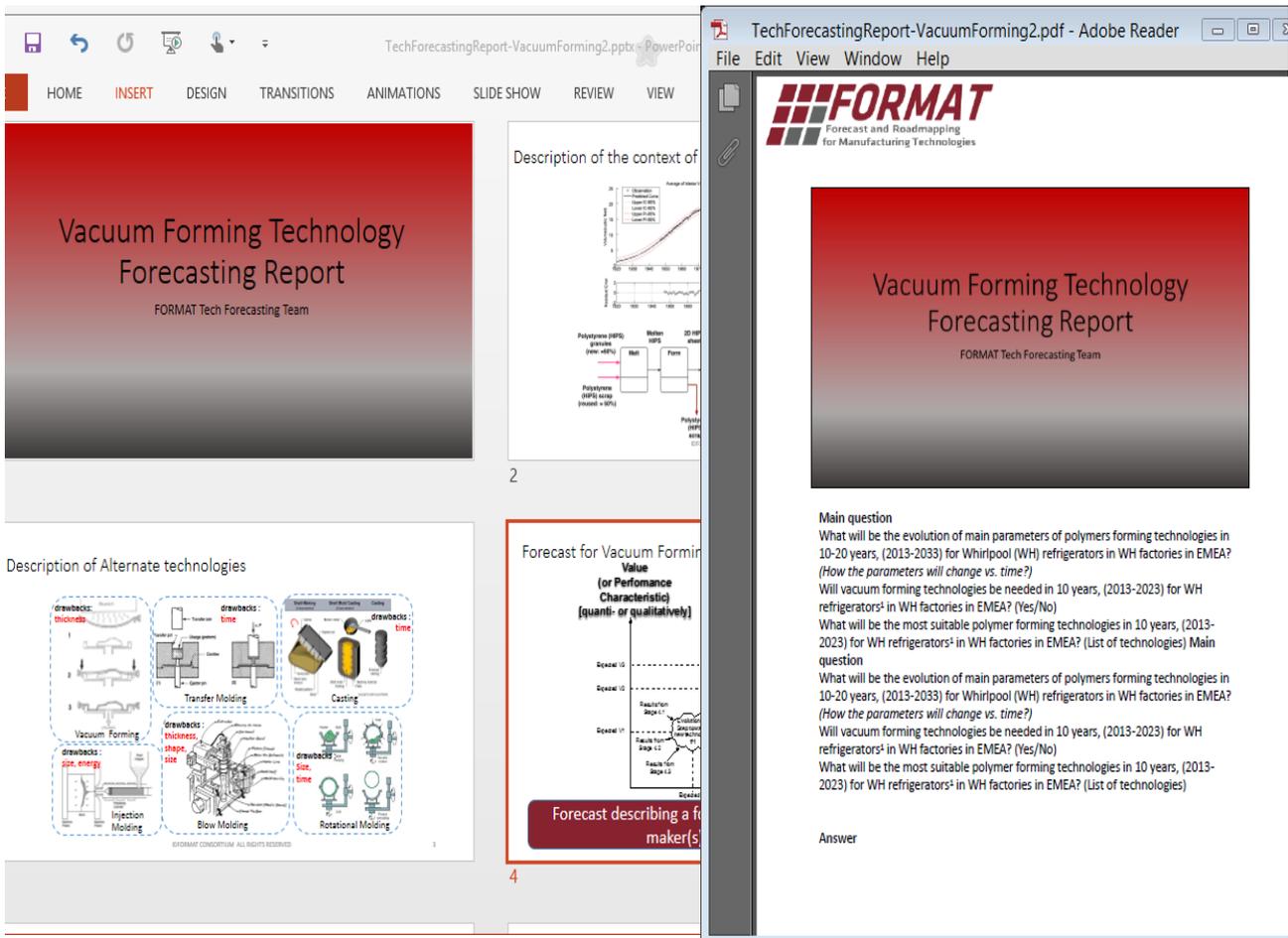


Fig. 1. Powerpoint™ version contained the presentation of the TF team to the DM which included the speaker notes for the TF team to remind what they were going to tell the DM as a forecast. The PDF version of the same presentation in Notes view was given to the DM as a meeting takeaway for the DM to read offline. The hyperlinks in the various sections lead to different sections for more information