**Objective of the capstone**

The purpose of the capstone is to provide you with an actual case study and to place you in a real-life situation. You decide the topic you want to explore during the 8 weeks, and the issue you propose to solve. We provide some datasets and topics as examples but those are not limitative. At the end of the day, what matters is that you have interesting ideas of value creation through data!

Consequently, a strong attention will be paid to the "value case" of the issue you will raise and the analysis you will perform! More than your algorithmic mastering or your technological skills, it’s a mix between your business, IT, analytics and IT capabilities that will be assessed. The main question will be “how do you promise value for the organization, the public, or citizens?”

Don’t forget that at the end of the last module of Fundamentals of Strategic Business Analytics, you already prepared the first step of this capstone project. You can re-use it and go further or decide to start a completely new project…

The schedule, deliverables and grading system are described below. As the final task of our specialization, the capstone project requires you to have completed the following MOOCs:

- Fundamentals of Strategic Business Analytics: which provides you with an introduction to strategic business analytics concepts and tools with an emphasis on how to communicate your results.

- Fundamentals of Marketing Analytics: which provides more tools and applications for customer-centric solutions.

- Case Studies in Business Analytics with Accenture: which provides examples and case studies of strategic business analytics applications.

Before starting the capstone, we advise you to watch the following videos again:

* The last module of "Foundation of Business Analytics"
* The wrap up of "Case Studies in Business Analytics with Accenture".

# Datasets used for the capstones

1. **Monitoring of CO2 emissions from passenger cars – Regulation 443/2009**

European Environment Agency

Regulation (EC) No. 443/2009 requires Member States to record information for each new passenger car registered in its territory. Every year, each Member State shall submit to the Commission all the information related to their new registrations. In particular, the following details are required for each new passenger car registered: manufacturer's name, type approval number, type, variant, version, make and commercial name, specific emissions of CO2, mass of the vehicle, wheel base, track width, engine capacity, fuel type and fuel mode. Additional information, such as engine power, were also submitted.

<http://www.eea.europa.eu/data-and-maps/data/co2-cars-emission-8>

TRANSPORT – CAR – ENVIRONMENT – REGULATION

**2. Speed Dating**

Department of Statistics – Columbia University

Speed dating data with over 8,000 observations of matches and non-matches, with answers to survey questions about how people rate themselves and how they rate others on several dimensions. This is a large and rich dataset which might take you some time to fully understand. It should be fun to play with.

<http://www.stat.columbia.edu/~gelman/arm/examples/speed.dating/>

FUN – DATING – HUMAN

**3. Bike Sharing**

Laboratory of Artificial Intelligence and Decision Support (LIAAD), University of Porto

Apart from the interesting real world applications of bike sharing systems, the characteristics of data being generated by these systems make them attractive for research. Opposed to other transport services such as bus or subway, the duration of travel, departure and arrival position is explicitly recorded in these systems. This feature turns bike sharing systems into a virtual sensor network that can be used for sensing mobility in the city. Hence, it is expected that most of the important events in the city could be detected via monitoring these data. The dataset contains 17,389 instances and 16 attributes.

[https://archive.ics.uci.edu/ml/datasets/Bike+Sharing+Dataset#](https://archive.ics.uci.edu/ml/datasets/Bike+Sharing+Dataset)

BIKE – TRANSPORT – LOGISTIC

**4. Loans**

Lending Club Corporation

These files contain complete loan data for all loans issued through the time period stated, including the current loan status (Current, Late, Fully Paid, etc.) and latest payment information. The file containing loan data through the "present" contains complete loan data for all loans issued through the previous completed calendar quarter. Another dataset contains the list and details of all loan applications that did not meet Lending Club's credit underwriting policy. You have to Sign in to download the full version of the files.

<https://www.lendingclub.com/info/download-data.action>

FINANCE – BANK – BUSINESS

**5. OpenFlights – Airport, Airline & Route Database**

OpenFlights

The OpenFlights Airports Database contains 6,977 airports spanning the globe.

The OpenFlights Airlines Database contains 5,888 airlines.

The OpenFlights/Airline Route Mapper Route Database contains 59,036 routes between 3,209 airports on 531 airlines spanning the globe.

<http://openflights.org/data.html>

TRANSPORT – AIRLINE – AIRPORT – ROUTE

**6. The Insurance Company Benchmark – KDD Cup**

Information and Computer Science, University of California, Irvine

This data set contains information on customers of an insurance company. The data consists of 86 variables and includes product usage data and socio-demographic data derived from zip area codes. The data was collected to answer the following question: Can you predict who would be interested in buying a caravan insurance policy and give an explanation why?

<http://kdd.ics.uci.edu/databases/tic/tic.html>

INSURANCE – BUSINESS – MARKETING

**7. Mailing campaign for NPO – KDD Cup 1998**

Information and Computer Science, University of California, Irvine

The dataset consists in a regression problem where the goal is to estimate the return from a direct mailing in order to maximize donation profits.

<http://kdd.ics.uci.edu/databases/kddcup98/kddcup98.html>

NON-PROFIT – CAMPAIGN – MARKETING

**8. Customer relationship prediction – KDD Cup 2009**

KDD Cup / Orange

This dataset offers the opportunity to work on large marketing databases from the French Telecom company Orange to predict the propensity of customers to switch provider (churn), buy new products or services (appetency), or buy upgrades or add-ons proposed to them to make the sale more profitable (up-selling). Both training and test sets contain 50,000 examples. For the large dataset, the first 14,740 variables are numerical and the last 260 are categorical. For the small dataset, the first 190 variables are numerical and the last 40 are categorical.

<http://kdd.org/kdd-cup/view/kdd-cup-2009/Data>

CHURN – CUSTOMER RELATIONSHIP – MARKETING

**9. Fuel prices**

ETALAB, data.gouv.fr

The dataset consists in daily prices for gas stations in France from 2007 to 2014. It contains information such as the address, geographical information, working hours, prices, services provided and permanent or temporary closure if it is the case. It also contains historical information to allow comparisons.

<https://www.data.gouv.fr/en/datasets/prix-des-carburants-en-france/>

FUEL – GEOGRAPHICAL – ENERGY

**10. Medical expense refunds (Medicam)**

ETALAB, data.gouv.fr

The Medic'AM dataset reports the medical expenses refunds by the French health insurance. For each medicament, the dataset provides its name, its category, the refunded basis, the number of refunded medicaments, the refunded amount and the prescribers basis. The dataset contains data from 2008 to 2013.

<https://www.data.gouv.fr/en/datasets/medicaments-rembourses-par-lassurance-maladie/>

HEALTH – INSURANCE – FRAUD

**11. Establishment Specific Injury & Illness Data (OSHA Data Initiative)**

United State Departement of Labor

The Occupational Safety and Health Administration (OSHA) collected work-related injury and illness data from employers within specific industries and employment size specifications from 1996 through 2011. The data provided is used by OSHA to calculate establishment specific injury and illness incidence rates. This searchable database contains a table with the name, address, industry, and associated Total Case Rate (TCR), Days Away, Restricted & Transfer (DART) case rate, and the Days Away From Work (DAFWII) case rate for the establishments that provided OSHA with valid data.

<https://www.osha.gov/pls/odi/establishment_search.html>

INJURY – MEDICAL – LABOUR

Disclaimer: those datasets are provided by third parties. They can be made unavailable by those parties without notice. ESSEC is not liable in any case for any problem occurred because of any type of usage of those datasets.

# Example deliverable 1

The following is an example of evaluation for the document “National healthcare & drug consumption in France” delivered by ESSEC students (Deliverable 1).

Note that considering that this exercise has been designed to be “as close to possible as a real-life analytics project”, many elements of the rubrics may overlap as it is often the case in real-life. For instance, a visual presentation very likely presents clear indicators. And an ambitious objective probably promises a high value. In general, a strong work will be strong on many aspects since most of the elements listed in the rubrics are not really independent from each other in practice.

**What’s good and can be considered as strength of the work:**

1. All the required elements of the analysis are presented: clear issue, ambitious objectives, clear and relevant indicators well defined within the available datasets, visual slides and summary statistics. Plus a beginning of the demonstration of the expected value (see Attention Point 1 below.)

2. Datasets and indicators are clearly described and it looks like you have what you need to be able to tackle the issue described (see Attention Point 3 below.)

3. Slide 5: Decomposition of the value for the different stakeholders

4. « Tree analysis » to decompose the issue in sub-problems to solve. See Minto Pyramid Principle (Google it if you don’t know about it!)

5. Good usage of the hierarchy of the information: action titles, slides well-structured, good articulation between the visuals and the textual explanations.

6. Already some analysis on the datasets (not required but demonstrate the good chance for this project to reach quickly meaningful results)

**What could be improved (attention points):**

1. While the total spending of drug costs in France for 2014 are reported, could you provide estimation in euro of the expected benefit of your proposal?

2. An executive summary is not a summary of your approach. It’s what an executive needs to know about your work. So it focuses on the value and summarizes what needs to be said for the expected value to be convincing!

3. Slide 8: Make the links between the datasets more explicit.

4. The context & issues are not developed enough to motivate why your proposal is an important one. The “big trends” are not enough: so what?

In consequence, the grade may be as follows:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Total | Issue | Ambition | Indicators | Visuals | Value |
| 20 | 6 | 3 | 4 | 3 | 4 |
| 16.5 | 5 | 2 | 3.5 | 2.5 | 3.5 |

[SBA Example deliverable 1.pdf](https://d3c33hcgiwev3.cloudfront.net/_9ee0ad26b8b93a9d72714dbebe245230_SBA-Example-deliverable-1.pdf?Expires=1703894400&Signature=hr3K1FD~rrSuTBiFGa-3mNo-SXuwcUMpOcHlknamClJeyNF2RklwtFvamRqz32ikTEalqPt5By3~x~qzuMSiibZmKZaaaTfGLg4s54hyfpkHtOUkNHJlgC~uXpCSnfyYaKMbgtqOr9IFZ8uxJyJWWs9n3j8UCPOFMCpJVkQ-J8w_&Key-Pair-Id=APKAJLTNE6QMUY6HBC5A" \t "_blank)

[PDF File](https://d3c33hcgiwev3.cloudfront.net/_9ee0ad26b8b93a9d72714dbebe245230_SBA-Example-deliverable-1.pdf?Expires=1703894400&Signature=hr3K1FD~rrSuTBiFGa-3mNo-SXuwcUMpOcHlknamClJeyNF2RklwtFvamRqz32ikTEalqPt5By3~x~qzuMSiibZmKZaaaTfGLg4s54hyfpkHtOUkNHJlgC~uXpCSnfyYaKMbgtqOr9IFZ8uxJyJWWs9n3j8UCPOFMCpJVkQ-J8w_&Key-Pair-Id=APKAJLTNE6QMUY6HBC5A" \t "_blank)

# Example: Final deliverable

The following is an example of evaluation for the document “IDENTIFY FRAUD RISK IN HEALTH INSURANCE DRUG-REIMBURSEMENT” delivered by ESSEC students (CSBA\_2014T1\_C3\_G4VP.pdf).

Note that the general principles listed for the first deliverable also apply.

**What’s good and can be considered as strength of the work:**

1. Very ambitious work about a very important topic impacting many different types of stakeholders. We are talking about millions of potential savings for an issue that is discussed every day in mainstream media.

2. Presentation that is very explicit and detailed. All the important terms and elements are explicitly defined. The statistical elements are also briefly but clearly presented.

3. Clear segmentation of the drugs.

4. Good description of the potential three steps against off-label and prescription abuse (see Attention Point 3 below.)

5. Good executive summary (but see Attention Point 4 below).

6. It’s good to explicit the limitations of your work.

**What could be improved (attention points):**

1. This presentation is still too complex for laymen. It takes too much time to understand the case. Keep in mind that in your career you will have to present analyses to people who have no clue about what you did… It is essential to make your story lively and to write it as clearly as possible. Always make the “smart secretary test”: would a smart executive assistant understand your work?

2. Could integrate more graphical representations to support the analysis (segments, off-label analysis…)

3. But some of the steps proposed are not as well motivated as it should be. Your recommendations should not look like “your opinion” but something that is demonstrated rationally or has been tested in the past.

4. In the ExecSum: you don’t develop the recommendations enough. In particular, you should emphasize the expected benefits.

In consequence, the grade may be as follows:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Total | Issue | Ambition | Indicators | Visuals | Value | Recommendations |
| 20 | 3 | 1 | 1 | 5 | 5 | 5 |
| 16.5 | 3 | 1 | 1 | 2 | 5 | 4.5 |

[SBA Example Final deliverable.pdf](https://d3c33hcgiwev3.cloudfront.net/_28e63ccbf83e8b2ca472f89deebbaf1f_SBA-Example--Final-deliverable.pdf?Expires=1703894400&Signature=biULyfzQP22n2cPoaSJCsP5yeYrY1ZHo-0BGnTsKHth~QyJoUnG7oDbQ4LWI9r0JujdmScyTGOQwdXE4thtQ3HVRLAmP8VfWiG0RXCHLcOKyz5mJyPWLBHZO54YzI9dEezgbfJl3iSyxMAivejFQhNfVNWgBavIFLkdL~~lL8ig_&Key-Pair-Id=APKAJLTNE6QMUY6HBC5A" \t "_blank)

[PDF File](https://d3c33hcgiwev3.cloudfront.net/_28e63ccbf83e8b2ca472f89deebbaf1f_SBA-Example--Final-deliverable.pdf?Expires=1703894400&Signature=biULyfzQP22n2cPoaSJCsP5yeYrY1ZHo-0BGnTsKHth~QyJoUnG7oDbQ4LWI9r0JujdmScyTGOQwdXE4thtQ3HVRLAmP8VfWiG0RXCHLcOKyz5mJyPWLBHZO54YzI9dEezgbfJl3iSyxMAivejFQhNfVNWgBavIFLkdL~~lL8ig_&Key-Pair-Id=APKAJLTNE6QMUY6HBC5A" \t "_blank)

# Guidelines for watching the following video

This video provides an introduction into best practices when presenting your Business Analytics work to a business audience, with a focus on finding the right angle and using the technique of storytelling to create an engaging and understandable presentation for your audience. Further video lectures included in the Foundations in Business Analytics MOOC will explain the do’s and don’ts of storytelling, the appropriate style to use, and also reveal insights into effective visuals and structures for your presentations. At the end of the module, students will be offered the possibility to follow a recital and practice their newly gained skills and knowledge.

# Reporting your results: introduction

During this MOOC we've introduced the most important techniques used in business

analytics.

In each case we've discussed how to present the results in a visual,

relevant, and insightful way.

But that's not the end of it.

Once you've produced the most important summary statistics and

prepared them in a business oriented and communicable way,

Play video starting at ::33 and follow transcript0:33

you also need to present it to different audiences in practice.

Play video starting at ::38 and follow transcript0:38

It maybe to your management, your client, your teams, or different stake holders,

but it almost always needs to be communicated to someone in any case.

Play video starting at ::50 and follow transcript0:50

In this module we'll discuss how you can present

your business analytics work to a business audience.

We'll explain that you need to find an angle.

And then, the story.

You should absolutely avoid giving the impression that you're presenting

a list of resource that are not connected to each other.

Instead, you should take the audience by the hand and

stick to the recommendations you want to conclude on.

Play video starting at :1:19 and follow transcript1:19

We'll discuss how to conclude your story, and new slides.

And also present some of the most used visualizations, tips and tricks.

Play video starting at :1:29 and follow transcript1:29

As usual, there will be a recital at the end of the module so

that you can start practicing by yourself.

Now since it's all about the story it's also a matter of style.

You will certainly see different styles for structuring presentations, stories, or

slides.

But while I would agree there is no single way to tell a story.

They are certainly poor ways to do it.

Play video starting at :1:53 and follow transcript1:53

If one may argue with some of the choices I make in terms of storytelling and

presentation, there are certainly pitfalls that you should absolutely avoid,

Play video starting at :2:3 and follow transcript2:03

and I'll explain what they are.

Play video starting at :2:6 and follow transcript2:06

Here I focus on a certain style, quite consulting oriented and

much expertise driven.

Because that's very often why strategy business analytics experts, why have them.

But you can easily adapt those pointers to any other type of presentation.

Let's start.

# Guidelines for watching the following video

This video walks you through the key skills and techniques required when using the storytelling technique in your presentations. When watching the video, it is recommended to pay particular attention to the following points that are raised: the importance of conveying a message and key messages; providing relevant and quantitative information to your audience at the outset of your presentation; and giving your audience a clear direction that the presentation will take, from your finding to your summary, and next steps. The following questions will help you get the best from this video:

* Instead of the presenter focusing on personal interpretations of his/her work, what should be done to help your audience focus on the essential?
* What should you do in the first 30 seconds of your presentation to engage the audience and how can you give this even greater impact?
* Your presentation should not follow the actual order of the different actions you’ve taken in the course of your analysis. How, then, should it be structured?
* Your audience will most likely have a short amount of time at their disposal. How can you tailor your summary and next steps to cater for them?
* Your presentation should contain everything needed to understand the why, the what and the how of your results. What “test” can you carry out to check that it does just that?
* The end of the video lecture recommends a shared representation of reality. What are the keys to achieving this?

# It's all about the story

Remember the best presentations you have seen and the worst.

You noticed that the best presentations always share a characteristic.

Play video starting at ::17 and follow transcript0:17

Good presentations are very often story driven.

The presenter tells a story that you want to follow.

Play video starting at ::26 and follow transcript0:26

In contrast, poor and boring presentations are nuts.

Play video starting at ::30 and follow transcript0:30

For instance, particularly when dealing with technical topics if you are presented

to a list of result, without any relationship whatsoever, or

the presenter starts focusing on technical details that nobody cares about,

Play video starting at ::46 and follow transcript0:46

we'll likely stop paying attention.

Whether you will be presenting the result of your own analysis,

it's tempting to forget that you're not talking for

hearing your own voice, but to pass a message and accordingly.

You shouldn't focus on what you want to say about your walk.

For instance, how technically twice and how difficult some of the analysis were.

But focus on the key messages you want to convey to your audience.

Play video starting at :1:14 and follow transcript1:14

And so, a good business analytics story has a good beginning, and

I'm not talking about a opening joke, even though that could work.

I'm talking about starting your presentation

with a relevant to-the-point hookup.

For instance, there is no need to start haranguing

about the history of the company, or its sector in general.

Play video starting at :1:36 and follow transcript1:36

Imagine that you're talking to your clients as a consultant.

Play video starting at :1:41 and follow transcript1:41

He probably knows his own company better than you.

Instead, you should directly identify the issue at hand in a quantities and

visual way to convince your audience that what you will be presenting

will be worth their time.

Play video starting at :1:56 and follow transcript1:56

For instance, what's the pain point you want to solve?

Play video starting at :2: and follow transcript2:00

Are you trying induce on presentation?

Say it directly and give us a number indicating how serious the problem is.

Even better, show us a graph about the number of people leaving each year.

Play video starting at :2:16 and follow transcript2:16

Are you trying to serve your customers better?

Why is it important?

Is it because a recent satisfaction survey was tabled?

Play video starting at :2:25 and follow transcript2:25

Are we losing market shares?

Use quantitative information as soon as possible to demonstrate

the relevance of what you will address later in the presentation.

It may be a pin point.

Something to solve, or it may be an opportunity to take.

Play video starting at :2:41 and follow transcript2:41

But it cannot look like you're playing with data for the fun of it.

Play video starting at :2:46 and follow transcript2:46

If there is a reason why we are listening to you,

we should know it within the first 30 seconds.

Play video starting at :2:53 and follow transcript2:53

And by the way, don't forget to address it by the end of your presentation.

I very often seen presentations that claim that they would address the first issue,

and where actually addressing another one as the story progressed.

A great storyteller always delivers what was promised or foreshadowed.

Play video starting at :3:14 and follow transcript3:14

Now as a matter of fact, in practice

the key issue of the presentation is very often discovered the other way around.

The paying part of opportunity that you will be presenting at the very beginning

of your presentation, We usually only be identified in the course

of your analysis after you've concluded your analysis.

Play video starting at :3:35 and follow transcript3:35

What happens is that while analyzing the data,

you will discover opportunities to take or problems to solve, only after a while.

But when you present your work, it shouldn't follow the order

of the different actions you've taken in the course of your analysis.

It should be restructured after you've come to your conclusions,

to ensure that everything you do, from the beginning to the end,

looks like it has been aimed at addressing the issue raised in the introduction.

Play video starting at :4:5 and follow transcript4:05

Even so, when you've done your analysis,

the issue was only identified after your conclusions,

you should approach the structure of your presentation as a storyteller

is the story you want to tell that drives the structure of the presentation.

Not the way you analyze the data.

Play video starting at :4:27 and follow transcript4:27

And when you present your conclusions and

recommendations don't forget that the manager has limited resource and time.

At the end of the day, she can only focus on what is expected

to have the maximum impact from the smallest effort.

Play video starting at :4:44 and follow transcript4:44

Remember what is said about the need for efficiency in most of the modules.

Keeping in mind, when you're writing your own recommendations,

you need to focus on the most efficient actions to take.

So, once you've understood what are the actions that could solve the issue you've

raised, you need to make sure.

Prioritize those actions according to their efficiency.

Play video starting at :5:10 and follow transcript5:10

Do not make an ordered list of all the actions that could be taken.

Present quick wins or the low hanging fruits first.

Those actions that could be taken easily because needing little effort,

but would have huge positive impact on your business.

Play video starting at :5:30 and follow transcript5:30

And only then explain what should be done

on the longer run that will be impactful as well.

But that may require more effort.

Play video starting at :5:40 and follow transcript5:40

And again, you'll probably to decide to discard the less impactful and

realistic recommendations in any case.

Play video starting at :5:48 and follow transcript5:48

If it doesn't sound relevant or

easy to do on paper, it will probably be worse in practice.

Play video starting at :5:55 and follow transcript5:55

And so, you need to connect logically the issue that you've raised

with the conclusions that you've drawn.

Since we're dealing with business analytics,

you need to explain why you need the data you've collected to address the issue and

why the methodology you've chosen is relevant.

Play video starting at :6:13 and follow transcript6:13

That doesn't mean that you need to enter into all the little

detail of your approach.

But it means that your presentation should be self-contained.

It should contain everything needed to understand the why,

the what and the how of your results.

Play video starting at :6:31 and follow transcript6:31

I often do the test of the executive assistant.

Play video starting at :6:35 and follow transcript6:35

There is a smart executive assistant who understands your analysis.

Play video starting at :6:40 and follow transcript6:40

Someone who knows the business but is not a computer scientist or statistician.

Play video starting at :6:46 and follow transcript6:46

If the answer is no, work on the presentation until it's clear enough, and

the story flows well.

Remember something.

The point is not to show how smart you are, and how advanced your methodology is.

The point is to obtain the buy-in from your audience.

And nobody likes to feel stupid, or

to listen to the bragging of the first in the class.

Be as clear and to the point as possible.

It's in your own interests.

In the same fashion,

do not start explaining in details why something didn't work.

Play video starting at :7:21 and follow transcript7:21

Very often, because of your work,

you will start conducting analyses that will be fruitless.

It is very frustrating, and

it is very tempting to explain at length, afterwards that you've worked for so

many hours on something that has been shown to be irrelevant in the end.

Sometimes, it may indeed be a question raised by the audience, but is not really

relevant for your conclusions, you may decide to keep it in appendix.

That's fine.

But if it's not really relevant for your story, discard it and move on.

Just say one could have made this analysis, we did it and

it didn't work because of x, and then go on with the rest of your story line.

Play video starting at :8:2 and follow transcript8:02

I know it will be difficult to let go, because you're on the task.

But unfortunately, nobody else than you cares, so

don't spoil your story with detours that are irrelevant for your audience.

Play video starting at :8:16 and follow transcript8:16

And that is actually the question that should drive everything else.

What is relevant for your audience and what's not?

Play video starting at :8:25 and follow transcript8:25

And that depends on who is in front of you.

So who's your audience?

Is it an executive?

Play video starting at :8:32 and follow transcript8:32

Be very concise then with one or two executive summary slides.

Emphasizing what should be done and what will be the expected benefit.

Play video starting at :8:41 and follow transcript8:41

Is it a technical person?

Then you should take the opposite direction and

you may want to describe the measurement in details.

The same goes for the style.

Some people like that you start from the big picture and

zoom into the details afterwards.

And some people instead, like that you do the opposite.

Build your story piece by piece, and

present your overall conclusions only at the end.

Play video starting at :9:8 and follow transcript9:08

To wrap up on the story telling.

Let's say that your presentation shouldn't look like a list or

a series of analyses conducted separately.

Play video starting at :9:17 and follow transcript9:17

A bunch of interesting facts, but not really related, whatsoever.

It's a story.

So start first with the pin point to solve, an opportunity to take.

Think at good movie you've seen recently.

Probably, starts with an average Joe who is suddenly in front of a problem.

Play video starting at :9:36 and follow transcript9:36

You should have the same type of hookup.

Play video starting at :9:39 and follow transcript9:39

Then, explain how you approached it.

Describe the data, but only what's relevant for your analysis.

Do not waste too much time on what didn't work and

focus on having a flow of insights that follow each other and make sense.

Play video starting at :9:57 and follow transcript9:57

You want to attain your conclusions logically and

propose recommendations that will look like there's almost

no other common sense actions to take than those that you propose.

Play video starting at :10:11 and follow transcript10:11

And the way you will tell your story will depend on your audience.

Play video starting at :10:15 and follow transcript10:15

What's relevant for them, and what's not.

Play video starting at :10:18 and follow transcript10:18

Some rationals will resonate better to a certain type of audience,

while others won't.

Play video starting at :10:25 and follow transcript10:25

If you do your homework and

adapt to your audience by telling your story, most of the stakeholders will

buy in your recommendations by the end of your presentation.

Play video starting at :10:36 and follow transcript10:36

What you want to obtain is a shared representation of the reality between you

and your audience.

Play video starting at :10:43 and follow transcript10:43

This is a key success factor in getting people to move in the same direction.

Play video starting at :10:49 and follow transcript10:49

And it will work even better if they feel they participate in the reflection,

and come to the right conclusions by themselves.

# Guidelines for watching the following video

The One slide/One idea video lecture aims to provide you with a clear understanding of structuring and summarizing the information you will use in your Business Analytics presentations. It also focuses on structuring techniques to create your story outline and ends with the notion of “takeaways”. When watching this video, keep in mind the following questions:

* Speaking from experience, Professor Nicolas Glady mentions the “consulting approach” to a document that can be used as a basis for a presentation - what does he mean by a slide being something that can be read at different levels?
* What does he mean by a slide being “self-contained”?
* What is the aim of having “takeaways” on your slides?
* When watching the end of the video, what conclusion can we draw from the the “one slide/one idea” rule?

# One slide, One idea

Now that we've discussed the articulation between the parts of the presentation,

let's discuss the structure of the slides themselves.

Play video starting at ::18 and follow transcript0:18

The basic idea is that you should see your slides as a way to summarize as much

information as possible, while keeping the right balance of how clear they are.

The first thing I need to say about slides is that there are several approaches one

could take.

Play video starting at ::35 and follow transcript0:35

One of the most popular approaches when making a presentation

is to see your slides as a support to your oral presentation.

In that case, a slide should have as few text as possible.

Play video starting at ::49 and follow transcript0:49

It could just be an image, or at least something very visual.

Play video starting at ::53 and follow transcript0:53

Here, we'll take exactly the opposite approach.

We'll see a presentation as a written document that is not necessarily a support

to an oral presentation, but is instead self-contained and

presents, first and foremost, information that stands alone.

Play video starting at :1:12 and follow transcript1:12

It might also be used for an oral presentation afterwards if needed, but

most of the time, as a matter of fact, it's not.

This is a typical consultant approach where your documents will be passed around

teams of different persons and

you will not necessarily have the opportunity to defend it.

Play video starting at :1:31 and follow transcript1:31

And sometimes, it may happen that you will have this opportunity

to explain what you've produced in a face-to-face meeting.

So it's a matter of finding the right balance between similar objectives,

and toattain those different objectives all at once,

you should structure a slide as something that can be read at different levels.

People will sometimes only read the title, and

that's why your title needs to be informative.

Instead of entitling your slide conclusions summary, for

instance, replace it by the actual conclusions of that slide.

Play video starting at :2:8 and follow transcript2:08

An example could be should we adapt or go to market to focus on our core business?

This title, in this case, is an informative call to action.

It's longer, but it's useful.

It's what we call an action title.

What's also nice is that if you do that and then read all the titles from

the first slide to the end, you should have the outline of your story.

It's a neat way to check that everything holds together.

Play video starting at :2:37 and follow transcript2:37

Then, within the body of the slide,

it's good to have an illustrative way to summarize the message you want to convey.

Play video starting at :2:45 and follow transcript2:45

We'll discuss this point specifically in the next video, but

it may be a table, a graph, a chart or an illustration, for instance.

Play video starting at :2:54 and follow transcript2:54

Always add to these illustrations some textual explanations.

Your slide should be self-contained, and you should make sure that

all the information the reader needs is on the slide.

Play video starting at :3:7 and follow transcript3:07

Finally, you may decide to have some take-away boxes

at the end of some key slides.

Play video starting at :3:14 and follow transcript3:14

It's a kind of milestone within your presentation.

For instance,

a text box emphasizing a key message that your audience should absolutely remember.

At the end of the day, what's difficult is to find the right balance

between self-containedness and conciseness.

In order to be clear, a good story is neither too brief, nor too long.

So are your slides, and

the content of your slides should be the pieces that structure your story.

Play video starting at :3:44 and follow transcript3:44

I already mentioned that a neat way to make sure your story flows

is to check that all the titles are following each other well.

But you could see the other way around.

The action title of a specific slide should summarize this slide perfectly.

If you cannot summarize this slide in one sentence,

it's probably that you should split the slide in parts.

One slide, one idea.

# Guidelines for watching the following video

In this video lecture, Professor Nicolas Glady highlights the impact and importance of using images to convey multiple messages and create the “a-ha!” effect during your Business Analytics presentations. Follow the video lecture and make note of the answers to the following questions that are raised:

* Data visualization follows the same rule as the oral presentation of a message or data: what is that rule?
* What is meant by parallelism?
* Few people can see in more than two dimensions. What sort of visuals should you therefore be aiming to use?
* What is a tangible example of using images everyone understands?

# A picture is worth a thousand words

Being able to report your results in a visual way is very important.

First, it will allow you to report a lot of information in a very concise way.

A table or graph may convey a lot more information than text for

the same space on your slide.

Play video starting at ::26 and follow transcript0:26

The same for a visual representation or an image.

A picture is worth a thousand words.

Plus, it's also more convincing.

When seeing your image, if it's well-chosen,

your audience will directly understand what needs to be concluded.

Your audience will see the conclusion by themselves.

It will probably be more convincing than any picture claim you could make.

Play video starting at ::50 and follow transcript0:50

Seeing the decline in sales in proportion in histograms

don't need a lot of explanations.

And that's exactly what you want to obtain.

This aha effect.

Play video starting at :1:2 and follow transcript1:02

The best way to learn about data visualisation is to be exposed to a lot of

examples and try by yourself to understand what works and what doesn't.

Play video starting at :1:13 and follow transcript1:13

That's why in the recital we decided to present a lot of examples to provide

you with a kind of library of data visualisation approaches.

Play video starting at :1:23 and follow transcript1:23

But one could already keep in mind some principles.

First, if you want your audience to remember your key message,

you want to pull everything that is not absolutely necessary.

That means, that you shouldn't discuss what's not relevant.

As I said before, but

that also means that you shouldn't show what's irrelevant either.

If a point or line is not relevant in a graph remove it.

If a column or a row is not relevant in a table remove it and so on.

Play video starting at :1:56 and follow transcript1:56

And by not relevant I mean that it does not add to your message.

If it's just something interesting but not really useful It should go away.

Play video starting at :2:6 and follow transcript2:06

Second parallelism works if you want your audience to compare things

make it comparable.

Please compile the elements at the same level of your table for instance.

Or if you are using colors to distinguish between different groups in a graph

use the same color scheme from the beginning to the end.

Even the text are always align comparable objects on your slides.

I think you understood the point.

What I say is that you should always try to be

as consistent as possible in our presentations, and

use parallel structure when you want to emphasize the comparison between elements.

Third, few people can see in more than two dimensions.

So always try to report your analysis along two dimensions at most.

Play video starting at :2:56 and follow transcript2:56

You will notice that most of the strategic presentations are very often two by two.

Making symmetries, BCG metrics and the likes.

If you cannot afford walking on many dimensions, use our chart for instance

which is a neat way to project or serve all dimensions all at once into a plane.

Play video starting at :3:18 and follow transcript3:18

Finally, use images that people will understand directly

by using representations that are stand out and as concrete as possible.

Play video starting at :3:28 and follow transcript3:28

Remember the horses and the wild bulls.

They're aware of tender and

concrete images something that people will directly understand.

And so use tender confrontation as well in your own presentation.

For instance, if you want to report market share as a function of two factors.

Use a bubble chart with the size of the bubble being the market share and

the two axis being the two factors.

This is standard.

Do not re invent the wheel.

As our purpose is to make your message as easy to understand as possible.

Play video starting at :4:4 and follow transcript4:04

Many visualizations have been used in the past before you've worked on this specific

topic Use them as much as you can.

That's why we'll try to provide you with

as many examples as possible with those factors.

Play video starting at :4:19 and follow transcript4:19

But you should continue learning by yourself.

By having your own visualization library in your brain.

Play video starting at :4:26 and follow transcript4:26

To conclude, let me repeat again that the objective is to find the right balance

between the quantity of relevant information and

conciseness in order to be clear.

This is very important, but not very easy.

You want to presentation, your work, your story, and your slide to be as beautiful

as can be and always remember that the Temple of Apollo the Greek god

of beauty bore the inscription, [FOREIGN], nothing in excess.

It's an aesthetic principle.

If you could see an version of the Occam's Razor, if the information

is not absolutely needed to convey your message you should remove it.

Now it's time for you to practice by yourself again.

We present examples you recite them.

But whatever you see in this course at the end of the day you

will have to learn it by yourself.

Data visualization is not a science.

It's an art.

Play video starting at :5:25 and follow transcript5:25

Actually, it's even more of a craftsmanship.

If you want to improve, you should practice, practice, and practice again.

# Guidelines for watching the following video

This recital video walks you through how to present your Business Analytics findings, provides do’s and don’ts regarding the structure and use of visuals and offers a number of examples of effective slides to base your own on. As you watch, bear in mind the following questions which will guide you through the learning content of the video:

* A story must meet 3 criteria - what are they?
* There are 4 essential ways to successfully meet these criteria: what are they?
* What does the takeaway box model tell us about presentation goals and how to reach them?
* There are 5 do’s and don’ts for data visualization - what are they?
* A neat way of checking the effectiveness of your presentation is to use the Executive Summary technique: what 5 points are included in this?
* A number of examples of effective visuals are provided. What do they all have in common?

# Recital M5 - How to present your findings

Hi, my name is.

I am a last year student at Sydney Business School and I'll be your tutor for

this recital.

Play video starting at ::7 and follow transcript0:07

In this recital, we are going to talk about how to present your findings and

how to make your point to an audience.

Play video starting at ::15 and follow transcript0:15

First, I give you some dos and don'ts,

some basic rules you might want to follow when you present.

Then we'll see some examples both of slides and visualization.

I hope you enjoy this.

Have a nice MOOC.

So this recital aims to give you a couple of tips to get your point across

during the presentation.

Play video starting at ::36 and follow transcript0:36

The first thing you need to know is that presenting is all

about telling your audience a story it can hear, remember, and reproduce.

Play video starting at ::45 and follow transcript0:45

You have to focus on being clear, and

making sure they can follow every step of your performance.

Play video starting at ::52 and follow transcript0:52

To do so, there are four main things you can do.

The first one, is get your audience's attention by showing them how you're

relevant to their problem, that you've perfectly understood why they need you.

The best way to do so is to use a pain point.

Play video starting at :1:11 and follow transcript1:11

Pain point is the first thing you're going to say in a presentation.

Can be a thought, a number and

it must introduce tension into your demonstration by defining by the stake.

Play video starting at :1:22 and follow transcript1:22

Once you've caught your audience's attention, it's all about keeping it.

So the second you must do is connect your ideas throughout the presentation so

that you don't lose anyone in the process.

Play video starting at :1:34 and follow transcript1:34

The best way to do that is to structure representation as a story, so

that each transition makes sense.

Play video starting at :1:42 and follow transcript1:42

In case you do lose someone, the best way to get them back is to use action titles.

Play video starting at :1:49 and follow transcript1:49

An action title gives your reader a summary of the slide in one short

sentence, and serves two purposes.

First one, is to let someone you've lost catch [INAUDIBLE] and

the second one is to help someone quick create for your slides,

which is very important especially in case it's due for some management.

Eventually, you have to give actionable recommendations so

that your work matters and has an impact.

Play video starting at :2:18 and follow transcript2:18

In order to present effectively,

there are some rules you might want to stand by as well.

Play video starting at :2:23 and follow transcript2:23

Regarding your presentation, you have to make it clear what the point of each slide

is and make it easy for the audience to get the most important points.

Play video starting at :2:35 and follow transcript2:35

Using the action title we've just talked about coupled with a take away box,

is a good way of doing so.

Play video starting at :2:41 and follow transcript2:41

The take away box is basically a box where you highlight for the reader, what they

should keep in mind after the slide, to understand how you come to the next one.

Regarding the contents, bear in mind that everything on the slide must be

straight to the point, self containing, and relevant.

Don't write everything, this is not the Word document but be clear, nonetheless.

Play video starting at :3:9 and follow transcript3:09

In order to structure your thoughts, you may use bullet points, but remember,

that if everything is a bullet point, nothing really is.

Play video starting at :3:18 and follow transcript3:18

For instance, it is usually a good idea to avoid adding bullet points within bullet

points, within bullet points.

Play video starting at :3:27 and follow transcript3:27

Last but not least, keep your technique in check.

Remember who you are talking to and wonder whether they can understand this

difficult and precise fancy technique that you've just presented.

And whether they want to.

When you do want to explain something a bit technical or

use a method, make sure you make it understandable.

Play video starting at :3:52 and follow transcript3:52

Briefly explain the general method.

One sentence at most, main steps, without going into details.

If you use a visualization, help people read it and

draw relevant conclusions for them.

Play video starting at :4:7 and follow transcript4:07

Remember, you don't present for yourself, but for

a person listening to you or reading your slides.

Play video starting at :4:15 and follow transcript4:15

In data visualization, you have to remember

that your data is only as good as your ability to understand and communicate it.

Play video starting at :4:25 and follow transcript4:25

So make sure you choose the right visualization to have an impact.

The first thing you have to do, like in the presentation,

is to identify the story that you find your data so

that you can pick the right visualization for it.

Play video starting at :4:42 and follow transcript4:42

It is important to identify and understand the story you are trying to tell and

the relationship you're looking to show.

Knowing this information will help you select the proper visualization

best to deliver your message.

Data visualization also has a couple of do's and don'ts it's best to follow.

For instance, use only one color to represent each category or

else it gets messy and difficult to understand.

Order datasets using logical hierarchy, maybe biggest to smallest.

Or we've rewound or in terms of cutting these.

But you have to have a hierarchy, you can use call outs to highlight important or

interesting information.

Visualize data in a way that is easy for the reader to compare values.

And that comes with [INAUDIBLE], use icons to enhance comprehension and

reduce [INAUDIBLE].

Can use high contrast color combinations, do not use on the other side.

High contrast color combinations, such as read red or green, or blue or yellow.

These hurt the eye,

don't use 3D charts they screw up the reception of the visualization.

Basically, don't get to see that data as well and it's distracting for the reader.

Play video starting at :5:59 and follow transcript5:59

Don't add chart junk either.

Unnecessary illustration, drop shadows, or

ornamentation distracts from the data as well.

Don't show more than six columns singled by relevance.

Once again the same point, if it's too messy or

too differentiated, afterwards, it gets confusing for the reader.

Don't use distracting fonts or elements.

The same points still, don't use bold, italic, or underline text.

So for starters, if you look at the slide,

you see that we have a pain point as the very first thing we tell the audience.

Presently we define the state, the inefficiency of the media strategy.

And this is why we're here, we want to fix this.

Play video starting at :6:42 and follow transcript6:42

On this next slide, you can see that we start with an action title.

Play video starting at :6:46 and follow transcript6:46

That defines what we are going to talk about.

AVI Scores.

We also defined the method for

AVI scores, and how we computed them.

You can see here that we keep it very to a top and simple.

Only one line, and one line also on hypothesis.

Play video starting at :7:8 and follow transcript7:08

Here we also have a takeaway box.

Finding what we've learned at the end of the slide.

Play video starting at :7:16 and follow transcript7:16

This slide is also the same structure.

First an action title, then the method, how did we get there,

how did you do, what does this graph mean.

Play video starting at :7:30 and follow transcript7:30

Then as we have a graph, we'll do the title, what is it,

what is the timeframe, a legend which has to be constant.

So for instance, if you have two things that are equivalent but

slightly different, use the same colors and

use the same codes, then you try to reduce them in the different colors you use.

You give the main point if, for instance, it's 100 AVI, because if it's

under 100 it means it's not efficient, if it is over it, it means it is efficient.

Play video starting at :8:4 and follow transcript8:04

You give findings for visualization, you gave and a conclusion to a slide overall.

Play video starting at :8:13 and follow transcript8:13

You can also find great examples of data visualizations in the press or

in other places.

Viacom is, for instance, is a great source.

You can see here that we have a single title,

simple legend, few colors, but the axes are defined.

And that we have a source, we are also given the R2 and

the countries are ordered.

The continents are ordered in alphabetical order.

This graph is also really good because it's very to the point.

You can see the home index per state from 1971 to

2013 and have evolution from that.

This is about the same thing.

We have a title, we have the time frame, we have a scale,

ticks indicate the volume of migrations in millions.

Play video starting at :9:11 and follow transcript9:11

And we have the graph itself that replicates all that and

that's ordered as well.

Play video starting at :9:21 and follow transcript9:21

This graph is interesting as well, it is very to a point.

We see the airline routes across the world, basically.

It is interesting to note that the airlines have been ordered

in a way that's not immediately understandable.

So we've actually explained why it's ordered that way.

Play video starting at :9:43 and follow transcript9:43

We have different colors, not too many of them, so

that we can still read the graph, basically.

Play video starting at :9:51 and follow transcript9:51

And this one is basically one of the best one you can get.

You have a title and then the axis is as defined, it shows noted cities.

And the average course of buying a car and owning a family car in each city.

Here are the cities, here are the costs.

They split the cost in two colors, followed purchase price and running cost.

They give you a scale that start at zero,

which is really important for you to actually get the big picture and

the evolution, so that you know the long dynamic frame.

And we have a source here as well so

that you can actually place some outside data source.

So basically that was all.

I hope it was clear, and that you understood most of what I said, and

that you will be able to reuse it some time.

Good luck.

# Guidelines for watching the following video

This video lecture provides a summary to the previous lectures you have seen on presenting your datasets and conclusions, reminding students of the importance of storytelling, shared representation, structure, and images. In addition, a practical challenge is set for the last exercise in this MOOC: accessing a variety of datasets and preparing the first, crucial slide to your capstone Business Analytics presentation. Your slide will then be assessed by your peers according to the following criteria:

1. How relevant is the issue raised for a business or an organization?
2. How well is the issue presented, in a visual and quantitative way?
3. Is it the right level of information? Nor too much, neither too little?
4. Is the slide well structured? Is there a hierarchy of information that allows the audience to read the slide at different levels of depth?

# Wrap-up: Reporting your results

In this module we emphasized why storytelling is important

in a business analytics context.

First, you want to start the hook up,

emphasizing how important the issue you raise is.

Play video starting at ::23 and follow transcript0:23

Then, your presentation needs to flow and

come naturally and logically to your conclusions.

We underlined that one key success factor of implementing your recommendations

will be that you're getting your audience to have a shared representation

of the reality.

Play video starting at ::42 and follow transcript0:42

And this will ensure that everybody comes to the same conclusions by the end of your

presentation.

If they don't come to the same conclusions,

they won't act together to implement your recommendations.

Play video starting at ::54 and follow transcript0:54

So this point is crucial for

ensuring the success of your influence as a business analytics expert.

Finally, we also discussed how to structure those slides.

All your slides should be as visual as possible while also self contained.

Play video starting at :1:10 and follow transcript1:10

And I said that the best way to communicate well, is to use images and

representations that speak by themselves.

And from now on you should practice and

try to identify those images that work well.

Play video starting at :1:23 and follow transcript1:23

And that's something you can try yourself for

by being exposed to a lot of different examples.

Now, for the last exercise of this MOOC,

we would like you to practice a qualification issue on actual data.

And we'll kill two birds with one stone by only preparing the capstone project of

this specialization.

We've prepared a list of data sets that you can work on,

we'll find the documentation describing those data sets and

some propositions of issues that could be at risk.

Note that if you find more interesting data sets or equations,

you should feel free to use it, as long as the data is accessible to everybody.

Play video starting at :2:1 and follow transcript2:01

The objective is that any team may decide to replicate the results of another team.

That's why all the data sets that released are open source.

Play video starting at :2:12 and follow transcript2:12

So, for the end of this course, we would like you

to only prepare the first slide of your capstone project presentation.

Play video starting at :2:20 and follow transcript2:20

It may be a pain point to solve, or an opportunity to take.

But this one pager needs to be relevant, visual, self contained, and clear.

In short, everything we emphasized in this module.

You will then be assessed by your peers based on four criteria.

Each time assessed on a scale of one to five.

One being very bad and five being very good.

One, how relevant is the issue rate for a business or an organization?

Two, how well is the issue presented?

Is it visual and quantitative?

Three, is it the right level of information?

Not too much, neither too little.

Four, is the slide well structured?

Do we have a hierarchy of information that allow us to read the slide

at different level of depth?

You've made your first steps as a business analytics consultant.

We've discussed some tools and examples,

but we've just unveiled the tip of the iceberg.

In other MOOCs of this training, you will have the opportunity to see methodologies

in more details, such as during the marketing analytics course.

I'll cover a wider range of examples from various industries,

such as during the case studies with Accenture training.

Play video starting at :3:35 and follow transcript3:35

Also, do not hesitate to share you ideas or

concerns with the other participants of this MOOC, on the forum.

Play video starting at :3:43 and follow transcript3:43

Those exchanges are likely to foster an interesting dynamics leading

to the development of your own business analytics skills.

Play video starting at :3:53 and follow transcript3:53

Now to conclude, I'd like to say that I was very happy to do

this training on strategic business analytics with you.

And I wish you the best of luck for your strategic business analytics career.

# Guidelines for watching the following video

In this video lecture, Fabrice Marque explains the results of a research project conducted with MIT in June 2014 on the theme of the correlation between high performance and analytics capabilities. To help you retain the information in the video, use the following question prompts as a guide:

* Only one-fifth of companies are satisfied with ROI regarding analytics. What is the secret of these “High Performers”?
* What is a value creation tree and how does it work?
* What is the definition of a value driver?

# How to create value from data? - Fabrice Marque

Accenture conducted an overall research on analytics

issues with the MIT in June 2014.

The research proposed was to understand the correlation between high performance

and analytics capabilities.

Play video starting at ::23 and follow transcript0:23

Here is what was discovered.

Although the adoption of analytics has tripled in the last three years,

the average ROI still lags behind expectations.

Only one out of five companies is very satisfied.

We call these companies the high performers.

They are able to capture the value of analytics because they are [INAUDIBLE]

the organization.

And follow a value driven approach.

But how to follow a value driven approach

to show the extent to which the original objective has been fulfilled.

Look at this strategy asset, the value creation tree.

The value creation tree uses a tree structure to document the relationship

between client objective, value traverse, and symmetries.

Based on the different destiny of the client, and its industry,

we can identify value creation importancies, varied and solid projects to

execute while ensuring these importancies are aligned to strategic priorities and

value drivers that will deliver expected client outcomes.

Play video starting at :1:26 and follow transcript1:26

What is a value driver?

Value drivers are the operate effectors

with the greatest difference in strategy execution and value creation.

They are either financial or strategic.

How to create a client value tree?

Play video starting at :1:41 and follow transcript1:41

First, review the client context, and determine key client priorities.

The second phase is about discussing and documenting key objectives.

Then it's time to identify key value drivers by using client value statement.

Play video starting at :1:56 and follow transcript1:56

Finally document and agree on value metrics that support each value driver.

To conclude the value creation tree identifies key operating factors with

the greatest influence on strategic execution, and versed,

is the key asset for value driven approach.

# Guidelines for watching the following video

Mikael Svilar, Global Lead for advanced Analytics at Accenture, talks about the Accenture business cases you have studied and how they will help you in the future.

# Wrap up - Mickael Svilar

Hello, my name is Michael Svilar, I lead Accenture's data science script globally.

These case studies have covered various industries and

different business challenges.

Play video starting at ::18 and follow transcript0:18

Among other cases, you learned how a fuel company can optimize its prices and

promotions.

How a hospital can anticipate treatments for its patients with

chronic diseases to reduce the overall length of the inpatient's stays.

How a TV company can help viewers decide on what to watch to reduce churn.

How a pharmaceutical company created a data lab to

better capture value through out it's business.

All of that was made possible by the use of analytics.

We hope those case studies have helped you better understand

how the companies leverage business analytics to solve their challenges.

Now, it's your turn.

With the capstone project, you will learn how to create value from a data set.

Leverage what you've learned through the case studies to make your case even

better.

# Guidelines for watching the following video

Professor Nicolas Glady leads you through how to approach a data exploration project using data you are new to and that you’d like to explore. There are many interesting things to learn in this video lecture. Follow the questions to optimize the learning experience.

* Should you first have a hypothesis on what you want from a dataset or should you first look at the data?
* What’s the relationship between business understanding and data preparation?
* What are the most useful types of dataset available?
* What would you first and foremost do to see what sort of results the data might point to?
* What 2 discoveries come to light as a result of this?
* After collecting results from your dataset the “storyline” becomes an important factor. In what way?

# Data exploration is an iterative process - Nicolas Glady

I'd like to spend some time with you discussing how you can approach a data

exploration project.

This is very important, because very often you will have a new dataset

that you don't know and that you'd like to explore.

Play video starting at ::22 and follow transcript0:22

You may have a business question or

some idea about what could be relevant to do in this context.

But actually you don't really know what you could do with this specific dataset.

And so the question is, should I first have a hypothesis to test or

should I first look at the data?

Actually, the answer is both.

It should be an interactive process,

because you don't really know what's in the data.

And if you don't really know what you're looking for,

it will be very difficult to understand what the type of data you need to collect.

So it's normal to go back and forth between what you call

business understanding, or business qualification, what's really

the question you want to address, and data preparation, selecting the right data.

So let's take a very concrete example.

Let's imagine that you want to identify the churners in your company,

so the customers that are leaving for the competition.

You have different datasets like transactional information,

this type of dataset by the way is usually the most useful ones.

And then you have the contextual data and the social demographics.

But you don't really know what's relevant.

So what you will typically do is make some very basic summarized statistics on

the different datasets you have.

And so, you will make a table, for instance,

of the frequency of churners by category.

Or you may also do box plots or histograms of a specific variable.

So you just want to see what's the structure you could see in the data.

And then after a while, once you get familiarized with the dataset,

you will see what you have in front of you.

And you can start testing some ideas you could have.

Play video starting at :1:57 and follow transcript1:57

I'm expecting that the certain variable is correlated with another one.

Let's do it,

let's do this correlation analysis as we explained in the previous video.

I'm imagining that there is a relationship between several factors and

my variable of interest, here in this context, it would be churn.

I can, for instance, do a regression and test if I see significant effect.

And there are two things that could be interesting in this context.

It could be first, that you find a significant effect that you didn't expect,

which is always very interesting but that needs to be investigated.

Or, actually, exactly the opposite.

It could be that you expect an effect and

you don't see it when you're looking at your dataset.

And in the two cases it's really interesting to investigate.

And so it mean that you will requalify the question you have and

try to understand why you don't see the effect you're expecting to see or you see.

You're coming back and forth between question, business question qualification,

and data analysis.

But it's not always the same data you analyze and

the same business question you qualified.

So you start with a general question like, what's the proportion of churner in

my dataset or what are the effects leading to churn.

You do your regression, you do your analysis, and you realize that you have

an effect that is surprising, or an effect that is very strong.

What you will do then is that you will focus on that specific variable and

you will try to understand what makes this relationship special.

So you will make your analysis specific to this variable.

It may be that you want to do a regression.

It may be that you will test some histogram or some visualization.

But it will allow you to investigate, and

you will start collecting a bunch of analysis, tables, plots.

So after a while, you may want to

summarize the different results you've produced in something that makes sense,

and that's where the story line is so important.

You may remember that in a previous video I explained how to make a story line

from a presentation.

That's the moment where you can do it because you've produced all those

different statistics.

At first, it didn't look like it was related whatsoever.

But when you look at it,

you realize that indeed, I see several patterns that are related to each other.

And so maybe we can make a story out of it.

We can first start by the problem and then develop why the problem is important and

what do we see that is related to this problem and that is factual.

And so, one by one, you develop the different analyses you need to produce.

# Guidelines for watching the following video

Oonagh O’Shea and Noelle Doody talk to us about Analytics Exploration, the starting point of using data to generate business insight. Use the following guideline questions to provide a framework to the many interesting things you will learn.

* What first steps in any data exploration project should you undertake?
* Once you begin to look at the data, there are 3 things you must first do. What are they?
* Visualizing your data is very useful in analytics exploration. What sorts of visuals are most useful?
* “Binning” is a useful strategy for gaining further insight. What exactly is “binning”?
* The data exploration techniques explained in the video lecture prepare us for the next phase - advanced analytics. What can we do with our data in this phase?

# Analytics exploration - Oonagh O’Shea & Noelle Doody

Hi my name is Oonagh O'Shea and I'm a Management Scientist in

the Accenture Analytics Innovation Centre in Dublin.

Play video starting at ::17 and follow transcript0:17

>> Hi my name is Noelle Doody and I"m also a Management Scientist in

the Dublin Analytic Centre >> Today we're here to talk to you about

analytics exploration.

Play video starting at ::26 and follow transcript0:26

Analytics exploration is the starting point of using data

to generate business insight.

Play video starting at ::32 and follow transcript0:32

The cornerstone of analytics exploration is starting with a question.

Play video starting at ::37 and follow transcript0:37

So why do you need this business insight?

What problem are you trying to solve?

Play video starting at ::42 and follow transcript0:42

For example, a retailer may want to solve a variety of problems

from optimizing a supply chain to creating a successful marketing campaign.

Play video starting at ::51 and follow transcript0:51

To address these challenges the retailer may need insights such as who their

customers are, what they are buying, and where and when they are buying it.

Play video starting at :1:1 and follow transcript1:01

So, once we are clear of our problem we are trying to solve.

And before we even touch any data, we'll need to talk to the business

to understand how the question at hand is addressed today.

Play video starting at :1:12 and follow transcript1:12

Then, we speak to our data experts to understand what data is available and

how does this help you solve the problem.

Play video starting at :1:20 and follow transcript1:20

Now it's time to get hands-on with the data.

Play video starting at :1:24 and follow transcript1:24

Start to understand the data at a high level.

Play video starting at :1:27 and follow transcript1:27

Summary statistics such as sums, counts, mean,

median, standard deviation and range are all very helpful to do this.

Play video starting at :1:37 and follow transcript1:37

The next step is to review this information, and

to ensure it aligns with your expectations of the data,

based on your previous discussions with the business.

Play video starting at :1:46 and follow transcript1:46

To continue our example of the retailer, at this point we would confirm that

things like the total number of customers, the total number of transactions, and

the total value of sales are all in line with the business expectations.

This is a great time to identify any data cleansing or data quality improvements

that you may need to make in order to prepare for the next steps.

Play video starting at :2:8 and follow transcript2:08

Once you have that high level understanding of the data,

you can now dig a little deeper.

Play video starting at :2:14 and follow transcript2:14

In Analytics Exploration, It is very useful to visualize your data.

Play video starting at :2:20 and follow transcript2:20

For numeric data such as box plots, histograms, and

time series plots, they give great insight.

Play video starting at :2:29 and follow transcript2:29

You might use a histogram to understand the typical age profile of your customers.

Play video starting at :2:35 and follow transcript2:35

You may use a box plot to identify observations which are unusual compared

to the vast majority of your population, such as high worth transactions.

Play video starting at :2:46 and follow transcript2:46

Time series plots will allow you to visualize what is happening over time for

your population.

Play video starting at :2:53 and follow transcript2:53

Are people changing their spending patterns?

Play video starting at :2:57 and follow transcript2:57

Or are there seasonal spending patterns in the data?

Play video starting at :3:1 and follow transcript3:01

Use bar charts, frequency and

tabular analysis to gain insights from categorical data.

Play video starting at :3:9 and follow transcript3:09

For example, where in the world are your customers typically from?

Are certain stores more popular than others?

Play video starting at :3:17 and follow transcript3:17

Binning is a useful strategy for gaining further insight.

Play video starting at :3:22 and follow transcript3:22

This involves categorizing very granular data into meaningful higher level groups.

You may want to find out how rural and urban-based stores compare,

and we would do this by grouping the stores and analyzing at this higher level.

Play video starting at :3:41 and follow transcript3:41

Up to now, you have been looking at variables one by one, or uni-variatly.

We can get more insight by looking at variables in combination

to understand more complex patterns.

Play video starting at :3:56 and follow transcript3:56

Is there a relationship between the age of a customer and the amount they spend?

What is the nature of this relationship?

Play video starting at :4:4 and follow transcript4:04

Using correlation analysis you can answer questions such as these.

Play video starting at :4:9 and follow transcript4:09

You may also have theories.

For example, the customers in the U.S.

spend more on average than customers in Europe.

Play video starting at :4:18 and follow transcript4:18

Hypothesis testing allows you to test such theories to a degree of confidence.

Play video starting at :4:25 and follow transcript4:25

With analytics exploration techniques, such as those mentioned.

You are building a solid knowledge of your data, and preparing for the next phase,

advanced analytics, where you not only understand the past, but

use this information to predict the future.

And maybe even change it.

# Guidelines for watching the following video

In this video, Professor Nicolas Glady paves the way for your capstone project. His recommendations include returning to watch several videos from the specialization again, and review your notes and the video lecture on presenting your results. Above-all, his advice centers on focusing on what truly addresses your business issue: is it relevant? And what action can result from your findings? He ends with a message: “Data and analyses serve a single purpose”. Watch the video to find out what videos and content to review and what that final that purpose is!

# Wrap up & Capstone guidelines - Nicolas Glady

With this MOOC, case studies in business analytics with Accenture, you've

been exposed to examples of how to apply analytics to various business issues.

Thanks to the tools we've provided in the first two MOOCs you should now have

everything you need to start the capstone project.

Before starting this capstone project I would recommend you

watch some of the videos from our specialization again.

First the video where Mark explains how to create value from data.

And also the videos where we present how to approach a business analytics projects.

Play video starting at ::48 and follow transcript0:48

Remember that data visualization is very important when exploring a new data set.

And that this exploration should always be driven by business questions.

Finally, remember that it's iterative pauses and that it's normal to come

back and forth between data exploration and the business question qualification.

You'll probably changed the way you present the issue you want to address

as you start to better understand data you have in front of you.

Second, you should also return towards the last module of the MOOC,

Foundations of Business Analytics,

again, on how to present the results of your analysis in a business-oriented way.

Play video starting at :1:29 and follow transcript1:29

Data visualization is here, again, very important.

But to emphasize the message you want to transmit,

Not only to explore your dataset.

It needs to be well presented.

In addition, focus on what matters,

what really addresses your business issue, what is actionable and relevant.

Do not dwell too much on the technical matters you've been using.

It needs to be clearly explained because it will make your story more believable,

but shouldn't constitute the call of your presentation.

As it is just what it supports your conclusions.

At the end of the day, data and

analysis are not what people are really interested in.

Data and analysis serve a single purpose.

To make your conclusions and recommendations believable.

Play video starting at :2:17 and follow transcript2:17

I hope you enjoyed this specialization, and I hope it helped you develop

your understanding of strategic business analytics issue.

I wish you all the best for the rest of your career.

# Optional ungraded peer review information

Next week you will have to submit delivarable 1: Define the analysis framework.

Objectives: Define the what, why & how - What issue do we want to solve? Why does it promise value for public authorities, companies, citizens? How do we want to explore the provided data?

Expected outcomes:

* Vision of the issue you want to solve through data analysis
* Explanation of the value you expect to generate, for all stakeholders (tangible / intangible)
* Explanation of the data universes you will explore to enable the analysis (transportation, health, retail, etc.)
* Presentation of the data sets you will use
* Presentation of the bridges you build between the data sets
* Presentation of the indicators/aggregates you will build based on these datasets
* Presentation of the way you will interpret the indicators / aggregates.
* Business perspectives :Identify the pain points (business or optimization perspectives) and try to find answers's tracks that you will explore during your analysis

This week, an optional ungraded peer review will allow you to share ideas with one another in a risk-free environment. Share your working draft to get feedback from other learners on how you're defining the analysis framework.

# Practice Peer-graded Assignment: Optional Deliverable 1: Define the analysis framework. Share your working draft

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It looks like this is your first peer-graded assignment. [Learn more](https://learner.coursera.help/hc/articles/208279926-Submit-peer-reviewed-assignments)

**Ready for the assignment?**

You will find instructions below to submit.

1. [**Instructions**](https://www.coursera.org/learn/strategic-business-analytics-capstone/peer/TMq1j/optional-deliverable-1-define-the-analysis-framework-share-your-working-draft)
2. [**My submission**](https://www.coursera.org/learn/strategic-business-analytics-capstone/peer/TMq1j/optional-deliverable-1-define-the-analysis-framework-share-your-working-draft/submit)
3. [**Peers to review**](https://www.coursera.org/learn/strategic-business-analytics-capstone/peer/TMq1j/optional-deliverable-1-define-the-analysis-framework-share-your-working-draft/give-feedback)
4. [**Discussions**](https://www.coursera.org/learn/strategic-business-analytics-capstone/peer/TMq1j/optional-deliverable-1-define-the-analysis-framework-share-your-working-draft/discussions)

**Assignment:**

Define the what, why & how - What issue do we want to solve? Why does it promise value for public authorities, companies, citizens? How do we want to explore the provided data?

Expected outcomes:

· Vision of the issue you want to solve through data analysis

· Explanation of the value you expect to generate, for all stakeholders (tangible/intangible)

· Explanation of the data universes you will explore to enable the analysis (transportation, health, retail, etc.)

· Presentation of the data sets you will use

· Presentation of the bridges you build between the data sets

· Presentation of the indicators/aggregates you will build based on these datasets

· Presentation of the way you will interpret the indicators/aggregates

· Deliverable format and presentation

### **Grading Criteria Overview**

Everyone enrolled in the course must review at least three other submissions to ensure everyone receives a grade; however, many learners complete more to help their peers who are still waiting.

The grade is on 20 and is based on how important the issue is, what the level of ambition is, whether the indicators are defined well enough, if it is visual, if the promise for value is good enough.

Each factor has the following weight:

1. How important is the issue? The grade is on 6 (0 very weak, 6 very good)

2. Is it ambitious enough? The grade is on 3 (0 not ambitious, 3 very ambitious)

3. Are the indicators clear and relevant? The grade is on 4 (0 not clear and not relevant, 4 clear and relevant)

4. Is it visual? The grade is on 3

5. Is the promise for value good enough? The grade is on 4

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# Assignment:Define the analysis framework.

**Objectives**:

Define the what, why & how - What issue do we want to solve? Why does it promise value for public authorities, companies, citizens? How do we want to explore the provided data?

**Expected outcomes:**

* Vision of the issue you want to solve through data analysis
* Explanation of the value you expect to generate, for all stakeholders (tangible/intangible)
* Explanation of the data universes you will explore to enable the analysis (transportation, health, retail, etc.)
* Presentation of the data sets you will use
* Presentation of the bridges you build between the data sets
* Presentation of the indicators/aggregates you will build based on these datasets
* Presentation of the way you will interpret the indicators/aggregates

Your presentation must be sent in a **pdf file**. Please see examples proposed in Week 1

# Peer-graded Assignment: Required deliverable 1:Define the analysis framework

DeadlineJan 14, 11:59 PM PST

**Ready for the assignment?**

You will find instructions below to submit.

To access My submission, you’ll need to agree to the Coursera Honor Code.

1. [**Instructions**](https://www.coursera.org/learn/strategic-business-analytics-capstone/peer/3m5y8/required-deliverable-1-define-the-analysis-framework)
2. [**My submission**](https://www.coursera.org/learn/strategic-business-analytics-capstone/peer/3m5y8/required-deliverable-1-define-the-analysis-framework/submit)
3. [**Discussions**](https://www.coursera.org/learn/strategic-business-analytics-capstone/peer/3m5y8/required-deliverable-1-define-the-analysis-framework/discussions)

**Assignment:**

Define the what, why & how - What issue do we want to solve? Why does it promise value for public authorities, companies, citizens? How do we want to explore the provided data?

Expected outcomes:

* Vision of the issue you want to solve through data analysis
* Explanation of the value you expect to generate, for all stakeholders (tangible / intangible)
* Explanation of the data universes you will explore to enable the analysis (transportation, health, retail, etc.)
* Presentation of the data sets you will use
* Presentation of the bridges you build between the data sets
* Presentation of the indicators/aggregates you will build based on these datasets
* Presentation of the way you will interpret the indicators / aggregates.
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Each factor has the following weight:

1. How important is the issue? The grade is on 6 (0 very weak, 6 very good)

2. Is it ambitious enough? The grade is on 3 (0 not ambitious, 3 very ambitious)

3. Are the indicators clear and relevant? The grade is on 4 (0 not clear and not relevant, 4 clear and relevant)

4. Is it visual? The grade is on 3

5. Is the promise for value good enough? The grade is on 4

# This week is dedicated to the required feed back on deliverable 1>>

..that you have to give to 3 people at least.

# Prepare deliverable 2: Present the intermediary outputs and adjustments to the analysis framework

**In week two you'll be asked to answer this assignment that we advise to prepare now.**

**Objectives:**

Confirm the how and the relevancy of the first results

Expected outcomes:

* Confirmation of the indicators/aggregates built based on these datasets
* Confirmation of the way the indicators/aggregates are interpreted
* Presentation of the visual restitution to “give life” to the indicators/aggregates.

Make sure that Deliverable 2 is self-contained. Your peer reviewers should be able to understand the context of your analyses without reading Deliverable 1.

# Optional delivery 2: Present the intermediary outputs and adjustments to the analysis framework

Next week you will have to submit deliverable 2: Present the intermediary outputs & adjustments to the analysis framework

Objectives: Confirm the how & the relevancy of the first results

Expected outcomes:

* Confirmation of the indicators/aggregates built based on these datasets
* Confirmation of the way the indicators/aggregates are interpreted
* Presentation of the visual restitution to “give life” to the indicators / aggregates.

Make sure that Deliverable 2 is self-contained. Your peer reviewers should be able to understand the context of your analyses without reading Deliverable 1.

This week, an optional ungraded peer review will allow you to share ideas with one another in a risk-free environment. Share your working draft to get feedback from other learners on how you're defining the analysis framework.

# Practice Peer-graded Assignment: Optional delivery 2: Present the intermediary outputs and adjustments to the analysis framework

**Ready for the assignment?**

You will find instructions below to submit.

1. [**Instructions**](https://www.coursera.org/learn/strategic-business-analytics-capstone/peer/AYGZ6/optional-delivery-2-present-the-intermediary-outputs-and-adjustments-to-the)
2. [**My submission**](https://www.coursera.org/learn/strategic-business-analytics-capstone/peer/AYGZ6/optional-delivery-2-present-the-intermediary-outputs-and-adjustments-to-the/submit)
3. [**Peers to review**](https://www.coursera.org/learn/strategic-business-analytics-capstone/peer/AYGZ6/optional-delivery-2-present-the-intermediary-outputs-and-adjustments-to-the/give-feedback)
4. [**Discussions**](https://www.coursera.org/learn/strategic-business-analytics-capstone/peer/AYGZ6/optional-delivery-2-present-the-intermediary-outputs-and-adjustments-to-the/discussions)

**Objectives**:

Confirm the how & the relevancy of the first results

**Expected outcomes:**

* Confirmation of the indicators/aggregates built based on these datasets
* Confirmation of the way the indicators/aggregates are interpreted
* Presentation of the visual restitution to “give life” to the indicators/aggregates.

Make sure that Deliverable 2 is self-contained. Your peer-reviewers should be able to understand the context of your analyses without reading Deliverable 1.

### **Grading Criteria Overview**

The grade will be on 20 and will be based on how important the issue is, what the level of ambition is, whether the indicators are defined well enough, if is it visual, if is the promise for value good enough, if the preliminary recommendations are clear and actionable.

Each factor has the following weight:

1. How important is the issue? The grade is on 4 (0 means that there is no awareness about this issue; 4 means that we hear about it almost every day on the news.)
2. Is it ambitious enough? The grade is on 1 (0 means that you do not address the issue at all; 1 means that you address the issue in its entirety and for all the stakeholders.)
3. Are the indicators clear and relevant? The grade is on 3 (0 not clear and not relevant; 3 clear and relevant: the indicators are explicitly defined and indeed measure what needs to be measured. Those indicators can be measured with the dataset at hand.)
4. Is it visual? The grade is on 5. (0 means that there is nothing visual; 5 means that all the slides have a relevant visual component that reports and summarizes what needs to be remembered in a visual way.)

# Peer-graded Assignment: Required deliverable 2: Present the intermediary outputs and adjustments to the analysis framework

DeadlineJan 28, 11:59 PM PST

**Ready for the assignment?**

You will find instructions below to submit.

1. [**Instructions**](https://www.coursera.org/learn/strategic-business-analytics-capstone/peer/Og7Vl/required-deliverable-2-present-the-intermediary-outputs-and-adjustments-to-the)
2. [**My submission**](https://www.coursera.org/learn/strategic-business-analytics-capstone/peer/Og7Vl/required-deliverable-2-present-the-intermediary-outputs-and-adjustments-to-the/submit)
3. [**Discussions**](https://www.coursera.org/learn/strategic-business-analytics-capstone/peer/Og7Vl/required-deliverable-2-present-the-intermediary-outputs-and-adjustments-to-the/discussions)

Objectives: Confirm the how & the relevancy of the first results

Expected outcomes:

* Confirmation of the indicators/aggregates built based on these datasets
* Confirmation of the way the indicators/aggregates are interpreted
* Presentation of the visual restitution to “give life” to the indicators/aggregates.

Make sure that Deliverable 2 is self-contained. Your peer-reviewers should be able to understand the context of your analyses without reading Deliverable 1.

**Deliverable 2 is basically a preliminary version of Deliverable 3. There is no fundamental difference in what is expected, except that you’ll have the opportunity to benefit from the feedback of your peers for Deliverable 3 based on your Deliverable 2.**

### **Grading Criteria Overview**

**The grade is on 20 and is based on how important the issue is, what the level of ambition is, whether the indicators are defined well enough, if is it visual, if the promise for value is good enough, whether the preliminary recommendations are clear and actionable?**

Each factor has the following weight:

1. How important is the issue? The grade is on 4 (0 means that there is no awareness about this issue; 4 means that we hear about it almost every day on the news.)
2. Is it ambitious enough? The grade is on 1 (0 means that you do not address the issue at all; 1 means that you address the issue in its entirety and for all the stakeholders.)
3. Are the indicators clear and relevant? The grade is on 3 (0 not clear and not relevant; 3 clear and relevant: the indicators are explicitly defined and indeed measure what needs to be measured. Those indicators can be measured with the dataset at hand.)
4. Is it visual? The grade is on 5. (0 means that there is nothing visual; 5 means that all the slides have a relevant visual component that reports and summarizes what needs to be remembered in a visual way.)
5. Is the promise for value good enough? The grade is on 5. (0 means that it won’t generate any value, i.e. in dollars, for the different stakeholders. 5 means that the project convincingly promises to generate billions in cumulative terms. At this stage, a promise for value is convincing if it’s supported by the data and analyses. What’s not convincing shouldn’t be taken into account.)

# This week is dedicated to the required feedback on delivery 2

..that you have to give to 3 people at least.

# Prepare deliverable 3: Present the final outputs and value case

Next week you will be asked to give your final delivery and we advise you to prepare it now.

Objectives: Confirm the why – why will it create value for public authorities, companies, citizens

Expected outcomes:

* Final restitution of the indicators/aggregates analysis
* Presentation of the value case for public authorities, companies, citizens
* Recommendations to capture this value: how to make it actionable?

Make sure that Deliverable 3 is self-contained. Your peer reviewers should be able to understand the context of your analyses without reading Deliverables 1 and 2.

# Peer-graded Assignment: Present the final outputs and value case

DeadlineFeb 4, 11:59 PM PST

**Ready for the assignment?**

You will find instructions below to submit.

To access My submission, you’ll need to agree to the Coursera Honor Code.

1. [**Instructions**](https://www.coursera.org/learn/strategic-business-analytics-capstone/peer/hnv9U/present-the-final-outputs-and-value-case)
2. [**My submission**](https://www.coursera.org/learn/strategic-business-analytics-capstone/peer/hnv9U/present-the-final-outputs-and-value-case/submit)
3. [**Discussions**](https://www.coursera.org/learn/strategic-business-analytics-capstone/peer/hnv9U/present-the-final-outputs-and-value-case/discussions)

**Objectives**

Confirm the why – why will it create value for public authorities, companies, citizens

**Expected outcomes:**

* Final restitution of the indicators/aggregates analysis
* Presentation of the value case for public authorities, companies, citizens
* Recommendations to capture this value: how to make it actionable?

Make sure that Deliverable 3 is self-contained. Your peer-reviewers should be able to understand the context of your analyses without reading Deliverables 1 and 2.

Deliverable format and presentation

The following are the guidelines for deliverable format and presentation:

* The document needs to be 15 slides/pages maximum.
* With a storyline: "e.g. what's the pain-point, how do we approach it, here are our findings and related recommendations, but anything that flows goes..."
* The document needs to be self-contained, professional, and well-presented.
* The grade is given in function of how important the issue is, what the level of ambition is, whether the indicators are defined well enough, if it is visual, if is the promise for value is good enough, if the recommendations are clear and actionable? In general, you also need to assess how convincing (i.e. data based) the whole story is.
* Whatever you use to edit your presentation (PowerPoint, Keynote, etc.) submit it as a PDF.

### **Grading Criteria Overview**

The grade is on 20 and is based on how important the issue is, what the level of ambition is, whether the indicators are defined well enough, if it is visual, if the promise for value is good enough, if the recommendations are clear and actionable?

Each factor has the following weight:

1. How important is the issue? The grade is on 3 (0 means that there is no awareness about this issue; 3 means that we hear about it almost every day on the news.)

2. Is it ambitious enough? The grade is on 1 (0 means that you do not address the issue at all; 1 means that you address the issue in its entirety and for all the stakeholders.)

3. Are the indicators clear and relevant? The grade is on 1 (0 not clear and not relevant; 1 clear and relevant: the indicators are explicitly defined and indeed measure what needs to be measured)

4. Is it visual? The grade is on 5. (0 means that there is nothing visual; 5 means that all the slides have a relevant visual component that reports and summarizes what needs to be remembered in a visual way.)

5. Is the promise for value good enough? The grade is on 5. (0 means that it won’t generate any value, i.e. in dollars, for the different stakeholders. 5 means that the project convincingly promises to generate billions in cumulative terms. At this stage, a promise for value is convincing if it’s supported by the data and analyses. What’s not convincing shouldn’t be taken into account.)

# This week is dedicated to the required feedback on deliverable 3>>

..that you have to give to 3 people at least.