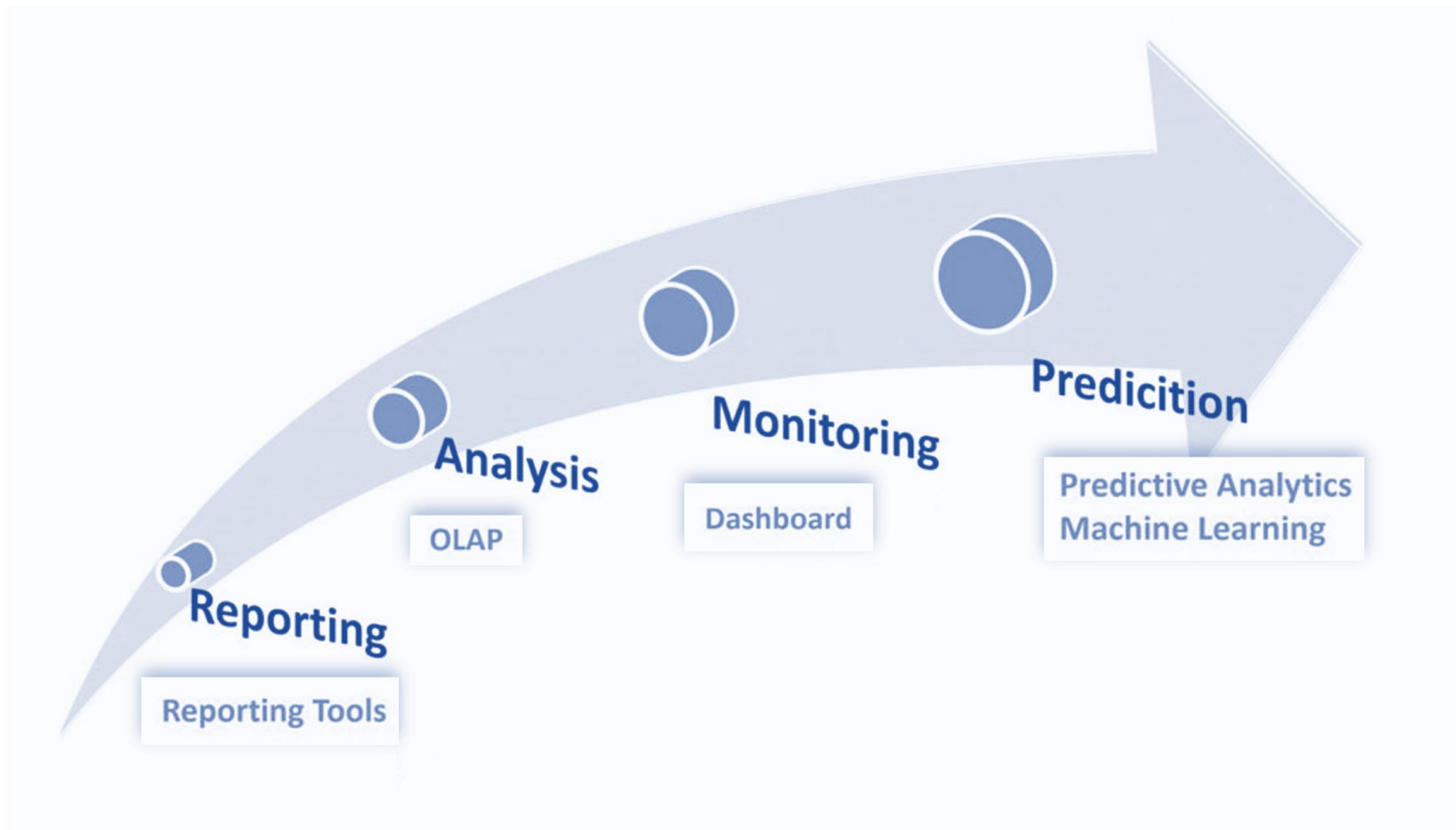


# CRM Data Science Road Map

Jassim Moideen

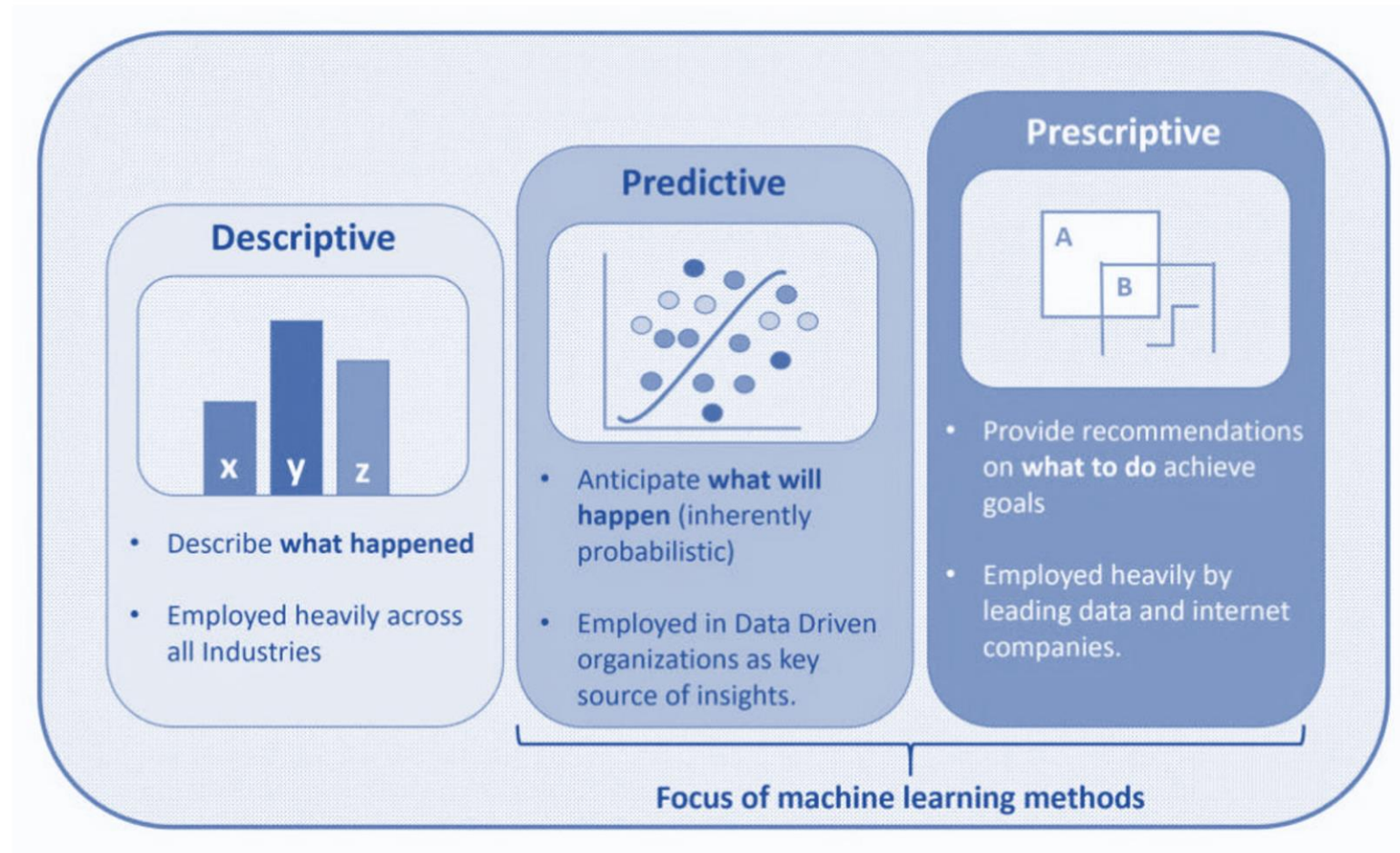
Evaluate our current state of analytics capability ?



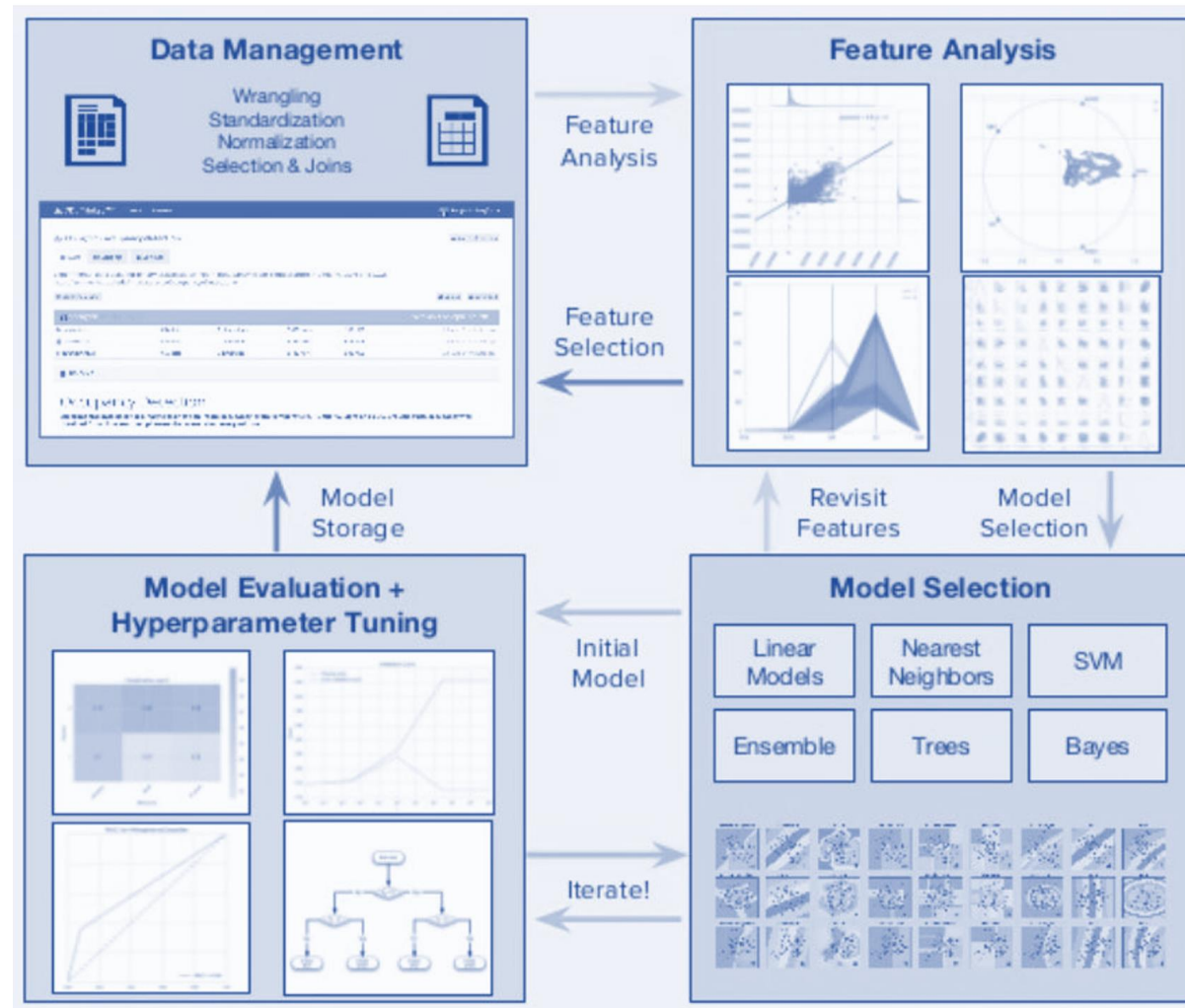
# What constitutes as Predictive Analytics ?



Focus and drive towards moving into the Prescriptive Analytics space.

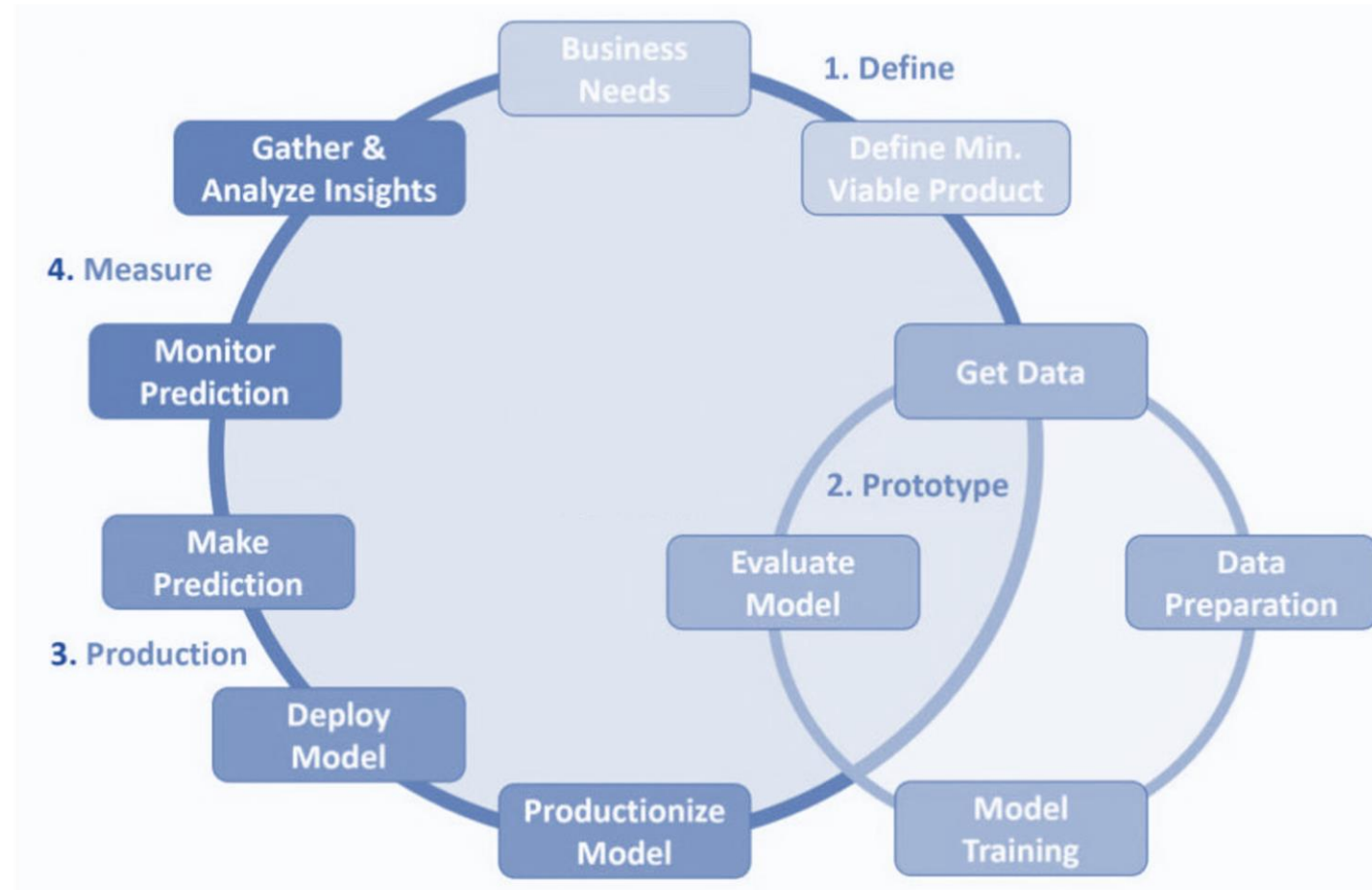


# Standardise the 4 phases of the Machine Learning workflow process



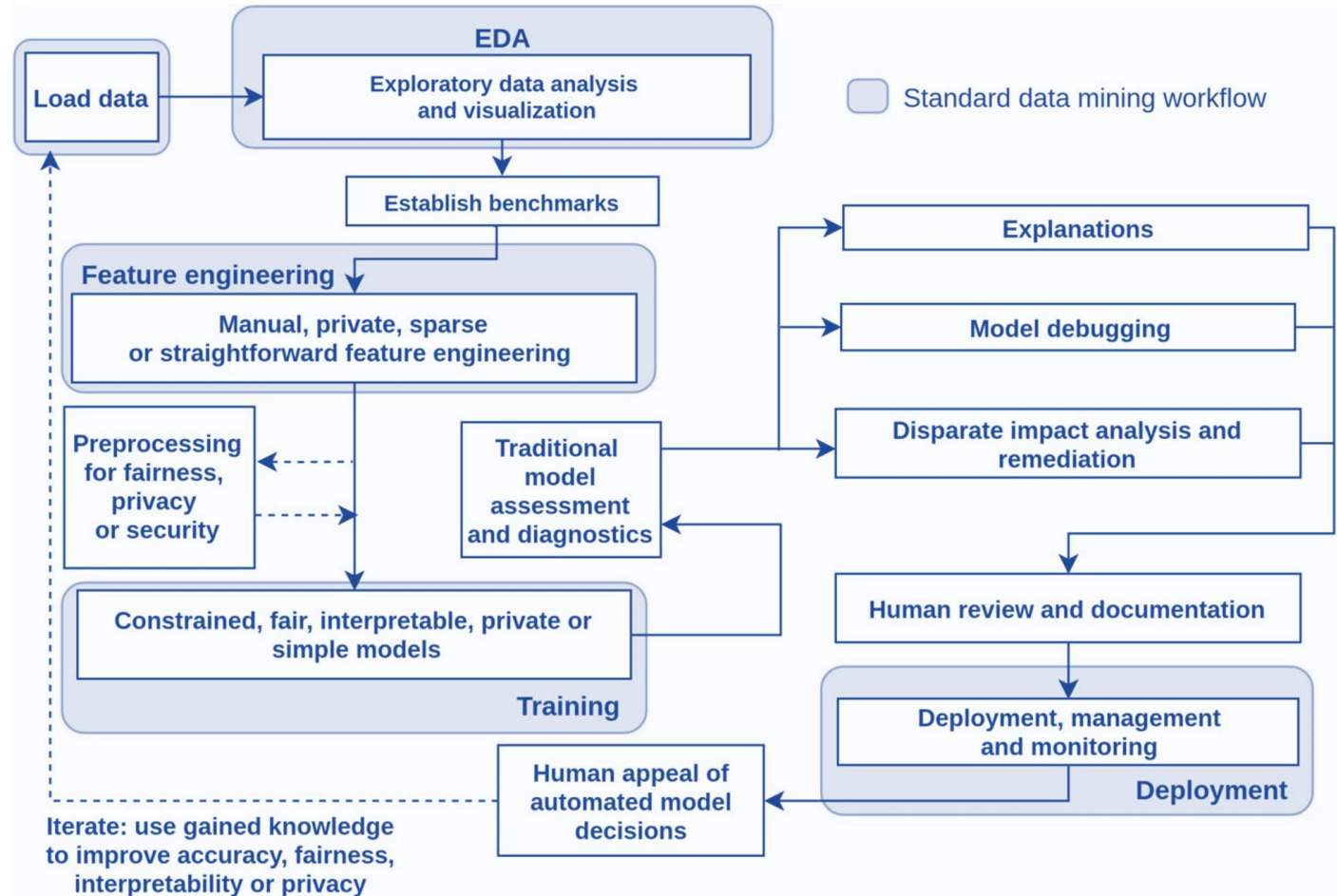
These 4 phases can be further explored as individual areas with standard subfunctions.

# Update from traditional DWH & BI CRISP lifecycle to a ML based workflow

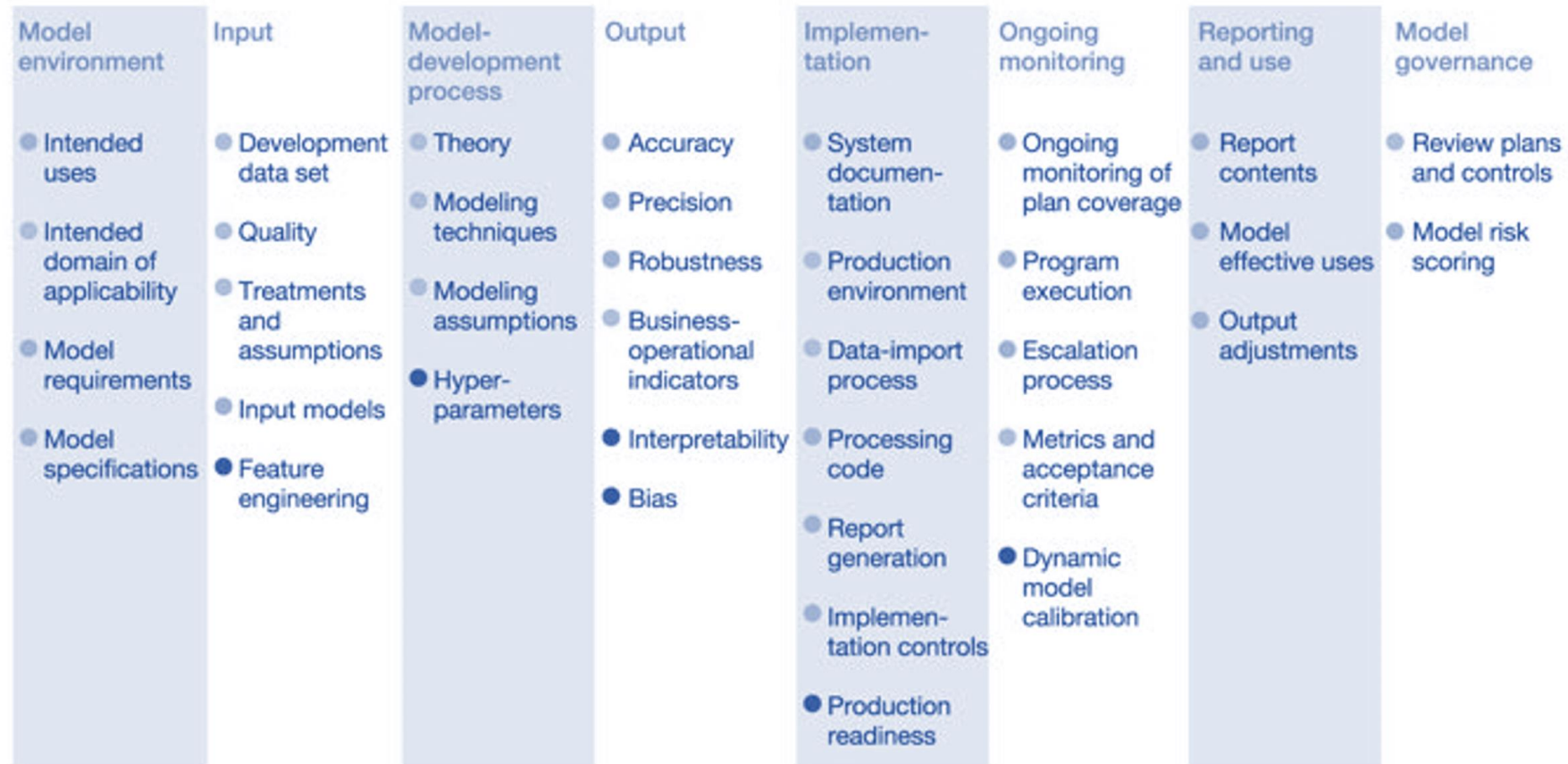




# Follow all the steps in the Machine Learning workflow subprocesses



# Establish a staggered end to end data science practice for delivery





# Ideal Data Science Team Composition – Functional Capabilities

TALENT	TASKS	SKILLS	LEADS	SUPPORTS
Project management	<ul style="list-style-type: none"> <li>Manage creation of team, timeline, and schedules</li> <li>Marshal resources</li> <li>Troubleshoot</li> </ul>	<ul style="list-style-type: none"> <li>Organization</li> <li>Methodology (such as scrum)</li> <li>People management</li> </ul>	<ul style="list-style-type: none"> <li>During creation of a data science operation</li> <li>During creation and execution of a project</li> </ul>	<ul style="list-style-type: none"> <li>Ongoing data science operations</li> </ul>
Data wrangling	<ul style="list-style-type: none"> <li>Find, clean, and structure data</li> <li>Develop and implement data and visualization systems, algorithms, and models</li> <li>Develop templates and systems for repeatable processes</li> </ul>	<ul style="list-style-type: none"> <li>Coding</li> <li>Statistics</li> <li>Systems architecture</li> </ul>	<ul style="list-style-type: none"> <li>Early in a data team's existence</li> <li>Early in a project's development</li> </ul>	<ul style="list-style-type: none"> <li>During routine data analysis, hypothesis testing, and visual exploration of data</li> </ul>
Data analysis	<ul style="list-style-type: none"> <li>Develop and test hypotheses on data and data models</li> <li>Find patterns and useful trends to inform business decisions</li> </ul>	<ul style="list-style-type: none"> <li>Statistics</li> <li>Scientific method</li> <li>Critical thinking</li> <li>Technical and nontechnical communication</li> </ul>	<ul style="list-style-type: none"> <li>During routine data analysis, project design, hypothesis testing, and visual exploration of data</li> </ul>	<ul style="list-style-type: none"> <li>Early in a data team's existence</li> <li>Early in project development</li> <li>During visual communication development and presentations to lay audiences</li> </ul>
Subject expertise	<ul style="list-style-type: none"> <li>Define business goals</li> <li>Develop and test hypotheses</li> <li>Develop nontechnical communication</li> </ul>	<ul style="list-style-type: none"> <li>Functional knowledge</li> <li>Critical thinking</li> <li>Strategy development</li> <li>Nontechnical communication</li> </ul>	<ul style="list-style-type: none"> <li>During project design, hypothesis testing, and visual exploration of data</li> <li>During communication to nontechnical audiences</li> </ul>	<ul style="list-style-type: none"> <li>Early in a data team's existence</li> <li>During visualization and design process</li> </ul>
Design	<ul style="list-style-type: none"> <li>Develop visual communication and presentations</li> <li>Create templates and styles for repeatable visualization</li> </ul>	<ul style="list-style-type: none"> <li>Information design</li> <li>Presentation design</li> <li>Design thinking</li> <li>Persuasive communication</li> </ul>	<ul style="list-style-type: none"> <li>During data visualization and the creation of presentations and visual systems (templating)</li> </ul>	<ul style="list-style-type: none"> <li>During visual iteration and prototyping</li> </ul>
Storytelling	<ul style="list-style-type: none"> <li>Develop stories from data and visuals</li> <li>Help construct presentations in story format</li> <li>Present to nontechnical audiences</li> </ul>	<ul style="list-style-type: none"> <li>Information design</li> <li>Writing and editing</li> <li>Presenting</li> <li>Persuasive communication</li> </ul>	<ul style="list-style-type: none"> <li>During creation of data visualization and presentations</li> <li>During presentation to nontechnical audiences</li> </ul>	<ul style="list-style-type: none"> <li>During visual iteration and prototyping</li> </ul>