Deloitte.

Foresighting Technological Trends

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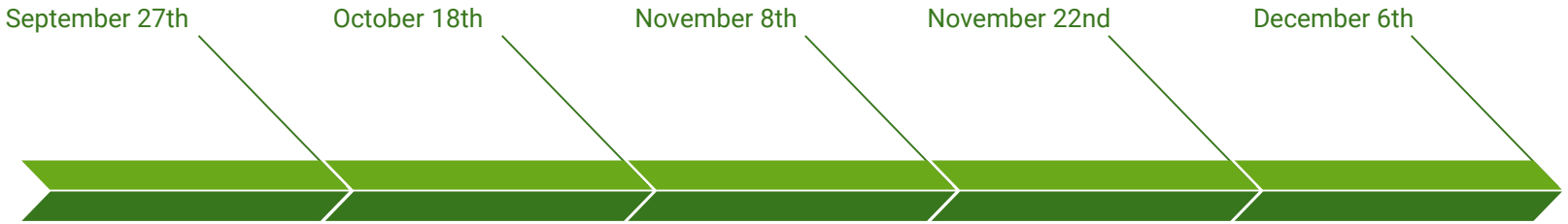
Timeline



Project Scope Discussion

- Problem identification
- Project charter development

Presentation of Key Findings

- Discuss findings based on case studies

Development of framework & hypothesis

- Present a draft of the framework
- Share preliminary hypothesis

Testing of framework

- Testing of framework on future technology

Identification of future trends

- Identify future technology trends
- Wrap up of project

Problem Statement

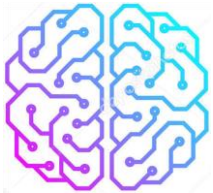
How can Deloitte identify future technology trends and determine the maturity and applicability to their clients?

Project Scope

The scope of this project is to develop a framework that will help Deloitte determine the maturity and applicability level of an emerging technology. The adoptability of the given technology is not within the scope of the project.

Case Studies

BLOCKCHAIN



ARTIFICIAL INTELLIGENCE

DRONE TECHNOLOGY

CLOUD COMPUTING

Common Themes

Cross platform application

Enhancements on current process

Increased efficiency

Social stigma

Reduce human resources or financial resources

Regulatory issues

Ethical issues (such as privacy issue)

Initial Framework

“AIRS” Technology Foresighting Framework

Applicability

Assessment Questions			
How many sectors does this technology apply to?	1-6	7-13	13+
Is this technology compatible with the existing systems and processes?*	Very difficult to integrate with existing infrastructure	Can be integrated with additional effort.	Easily integrated with existing infrastructure.
How customizable is this technology?**	Very difficult to customize	It is possible to customize this technology with some repercussions	Easy to customize
How accepted is the technology in the market?	Small number of companies	Moderate amount of companies	Large number of companies
How much research has been done on this technology?	No published articles	Some published articles	Many published articles

*Existing system refers to the current infrastructure on which this technology will be integrated
**Customizable refers to the ability to add or modify the functionality of the technology

Risk

Assessment Questions			
 Are there any regulations in the foreseeable future in place against this technology?	Likely	Potentially	Unlikely
 Does this technology have the potential to infringe on human rights?	Likely	Potentially	Unlikely
 Are there any negative social stigma from the society in the foreseeable future?	Likely	Potentially	Unlikely
 How much additional training is required to adopt this technology?	Significant amount	Some amount	Little to no amount
 How prone is this technology to cyber-attacks?	Very prone	Prone	Not prone

Impact

Assessment Questions			
How much does this technology optimize the existing technical system?*	Insignificant	Moderate	Significant
How much will this technology impact the industry?	Little to no impact	Moderate impact	Industry disruptor
How often does this technology require maintenance?**	Constant	Frequent	Infrequent
How much financial benefits will this technology provide to the client's business?	Little to no financial benefit	Moderate financial benefit	Significant financial benefit
How beneficial is this technology to the client's value chain?	Low	Medium	High

*Technical system refers to current technology/processes in place
**Maintenance refers to potential downtime

Sustainability

Questions			
 How often does this technology requires updating to stay current with the market trends?	Constant	Frequent	Infrequent
 What is the projected life-expectancy of this technology?	4 years or less	5 - 7 years	8 years or more
 How has tech-leaders supported this technology?	No current support	Support through public statement	Support through investments
 Is this technology based on any existing technology?	No	Partially	Yes
 How easy is it to integrate this technology with trending technologies?	Very complex	Modification required	Very easy

Hypothesis

If the assessment of the technology falls in the yellow spectrum or above, it is mature enough for next assessment process.

Red: the technology is immature

Yellow: the technology is on a path to maturity

Green: the technology is mature

Testing The Framework

	CRISPR	QUANTUM COMPUTING	5G	VR/AR
Applicability				
Impact				
Risk				
Sustainability				

Conclusion

- We confirm that our hypothesis is valid.
- This framework is an adequate tool for preliminary technology assessment.
- Perform this assessment annually to determine the growth pattern and understand the trend of emerging technologies.

Thank you

	VR/AR Score	Quantum Computing	CRISPR-Cas9	5G	Red	<= 1.4
Applicability	**2.6**	**2**	**2.2**	**2.2**	Red-yellow	>1.4 and <=1.8
How many sector does this technology apply to?	3	3	2	3	Yellow	>1.8 and <=2.2
Is this technology compatible with the existing systems and processes?	3	1	3	1	Yellow-Green	>2.2 and <=2.6
How customizable is this technology?	1	1	2	1	Green	>2.6
How accepted is the technology in the market?	3	2	2	3		
How much research has been done on this technology?	3	3	2	3		
Risk	**2.8**	**2**	**1.6**	**2.6**		
Are there any regulations in the foreseeable future in place against this technology?	3	2	1	2		
Does this technology have the potential to infringe on human rights?	3	1	2	3		
Are there any negative social stigma from the society in the foreseeable future?	2	2	1	2		
How much additional training is required to adopt this technology?	3	2	1	3		
How prone is this technology to cyber-attacks?	3	3	3	3		
Impact	**2.8**	**2.6**	**2.6**	**2.6**		
How much does this technology optimize the existing technical system?	3	3	3	3		
How much will this technology impact the industry?	3	3	3	3		
How often does this technology require maintenance?	2	1	2	1		
How much financial benefits will this technology provide to the client's business?	3	3	3	3		
How beneficial is this technology to the client's value chain?	3	3	2	3		
Sustainability	**3**	**2.2**	**2.2**	**2.8**		
How often does this technology requires updating to stay current with the market trends?	3	3	2	2		
What is the projected life-expectancy of this technology?	3	3	3	3		
How has tech-leaders supported this technology?	3	3	2	3		
Is this technology based on any existing technology?	3	1	1	3		
How easy is it to integrate this technology with trending technologies?	3	1	3	3		
Overall Score	**2.8**	**2.2**	**2.15**	**2.55**		
Band of Score	**Green**	**Yellow**	**Yellow**	**Yellow-Green**		