

# Professional Development and Career Progression for Data Scientists

# **Grow.**

Professional Development and Career Progression for Data Scientists

# Noa Tamir

Freelance Data Scientist and Analytics Consultant

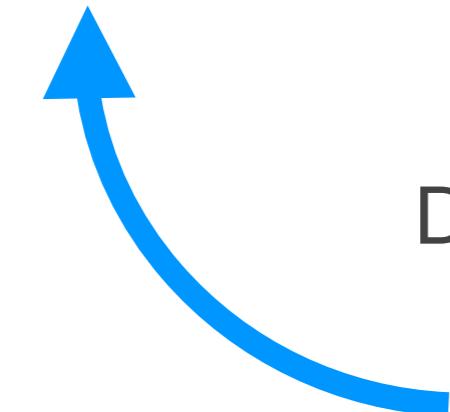
Data Scientist

Senior Data Scientist

Data Science Technical Lead

Data Science Team Lead

Director of Data Science



@noatamir



noatamir



noatamir.com



noatamir

# Noa Tamir

Freelance Data Scientist and Analytics Consultant

R-Ladies

Women in Machine Learning and Data Science

satRday

R Forwards

NumFocus DISC

Ampair



@noatamir



noatamir



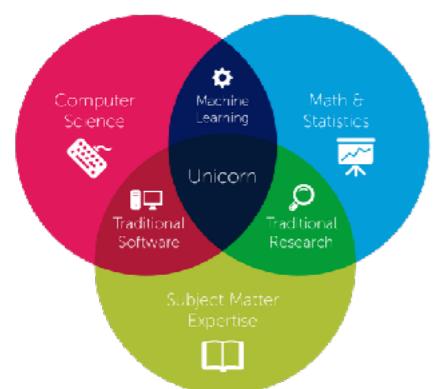
noatamir.com



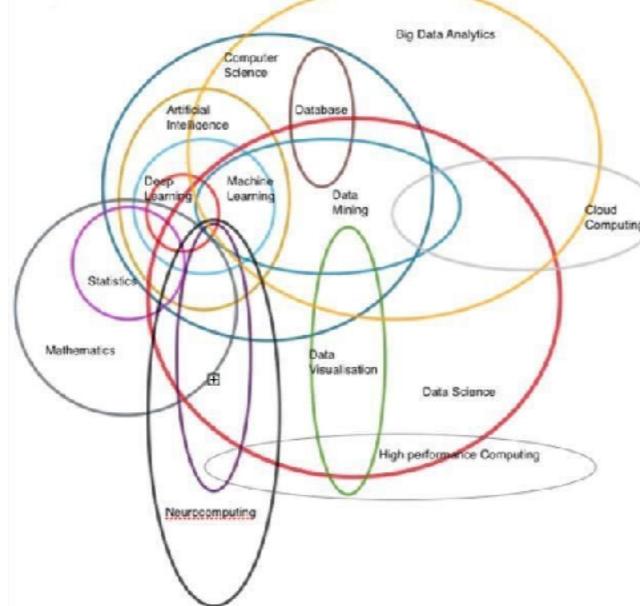
noatamir



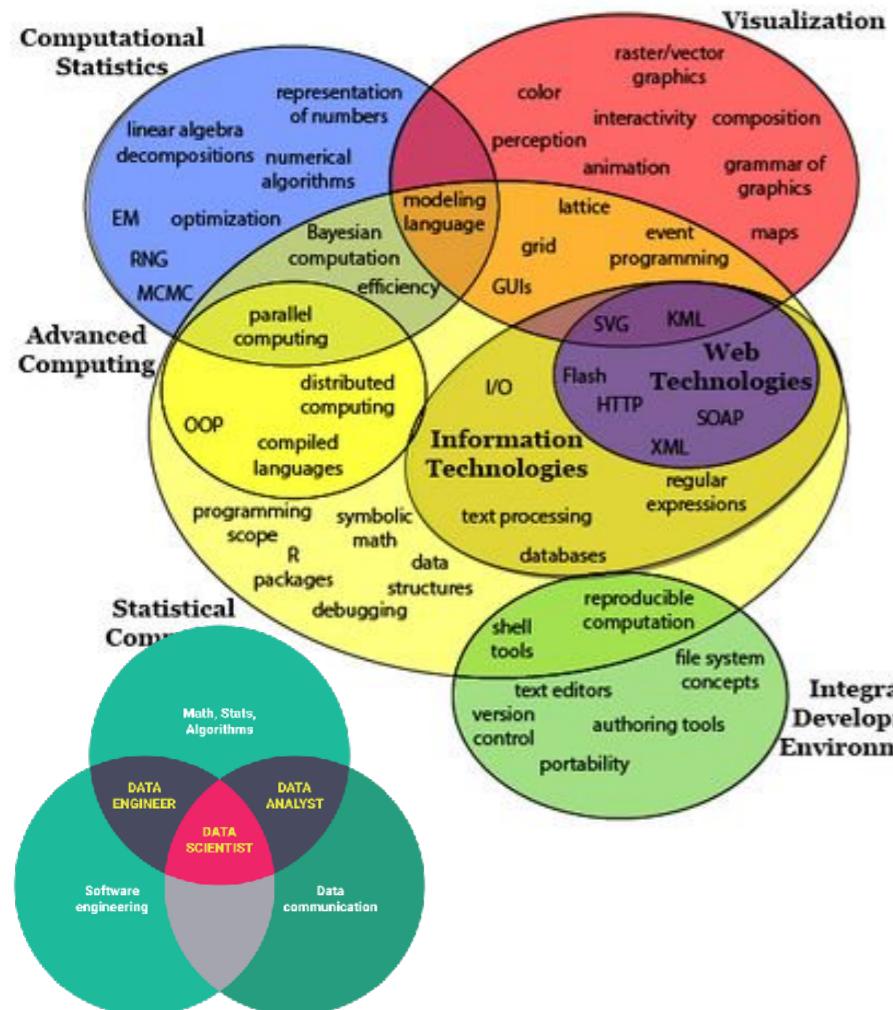
# Data Science



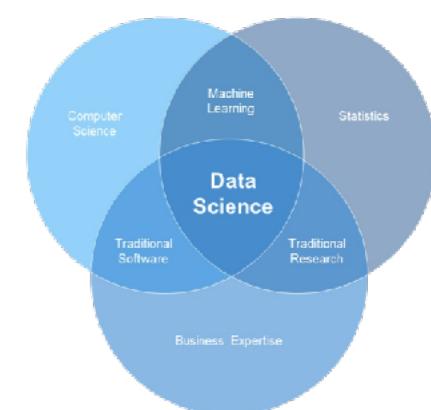
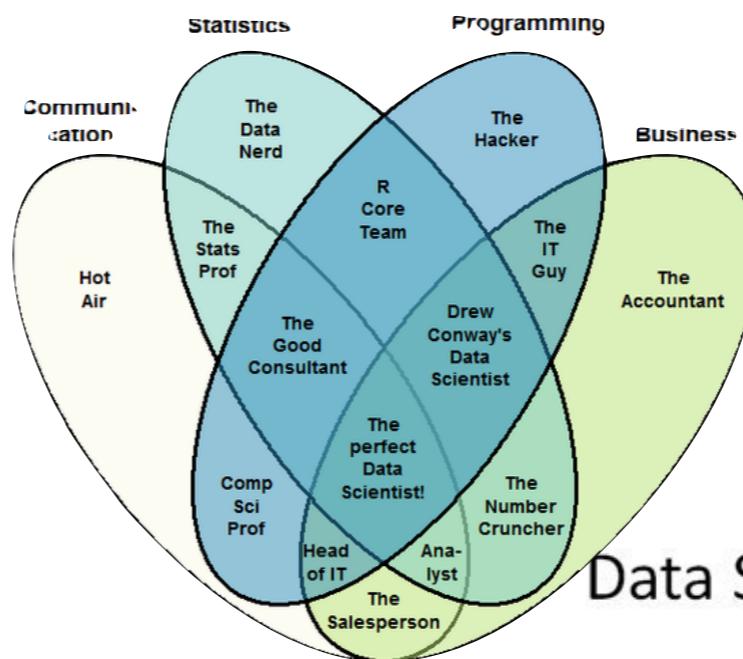
Relation between techniques of Big Data Analytics



This isn't even how Venn Diagrams work??

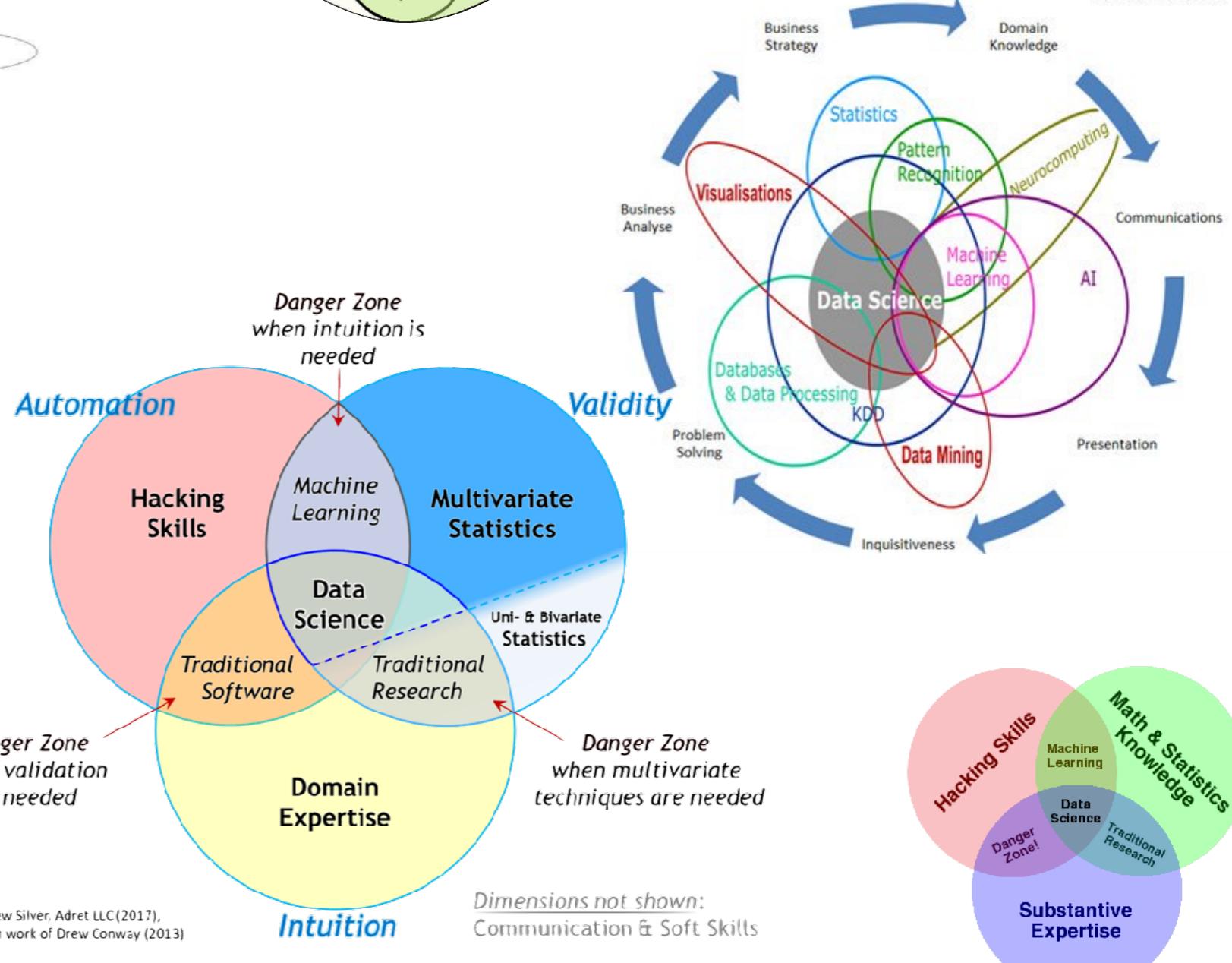


The Data Scientist Venn Diagram



## Data Science Is Multidisciplinary

By Brendan Tierney, 2012



# Career Tracks

## Skills: Levels, “Hard”, “Soft”

Mindset  
Resources  
In Practice

Where's the “Data Science Part”?





Tracks



“Tracks”

# “Tracks”

Junior



Professional



Senior



...and then? ...

**“Tracks”**

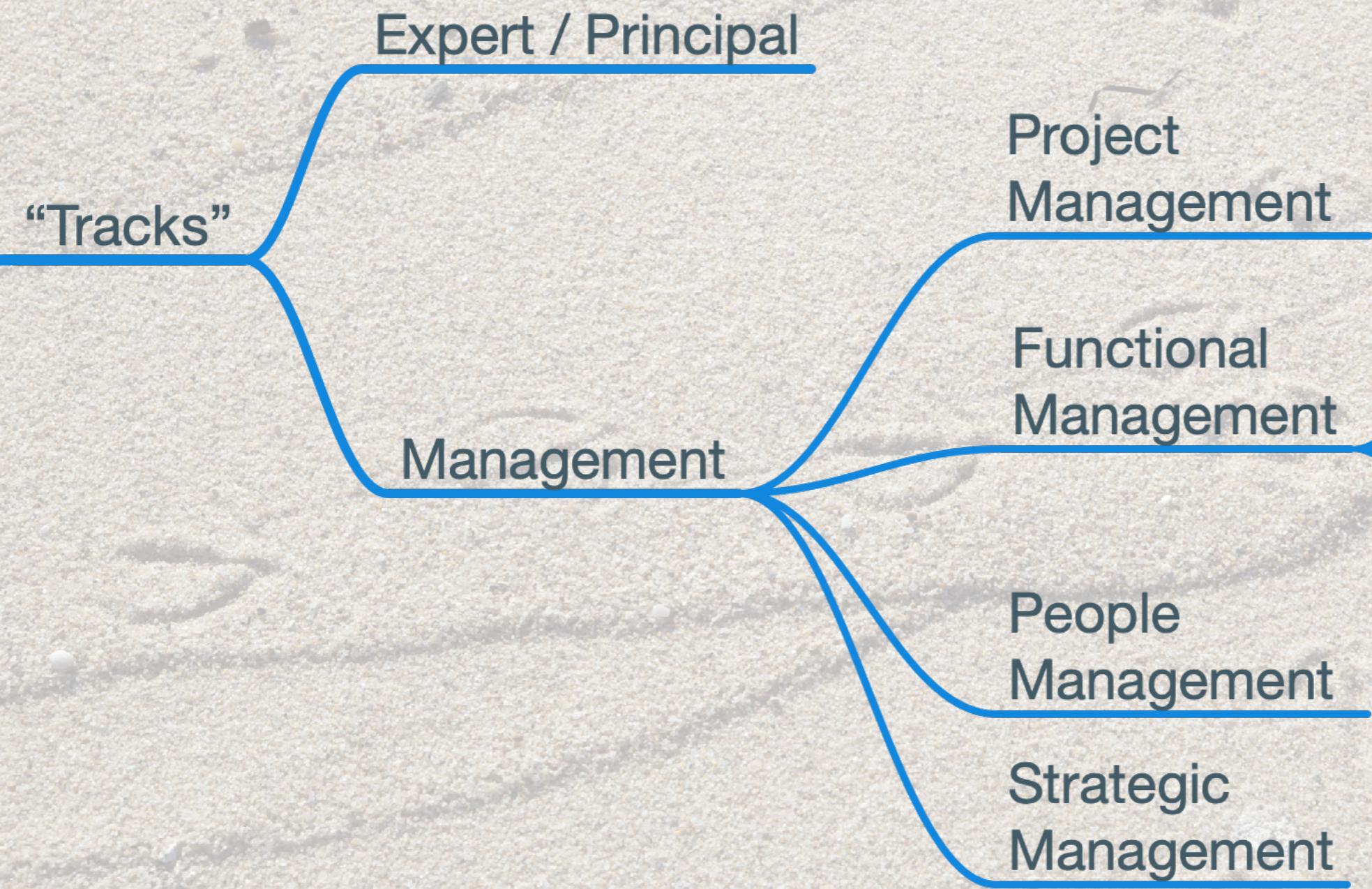


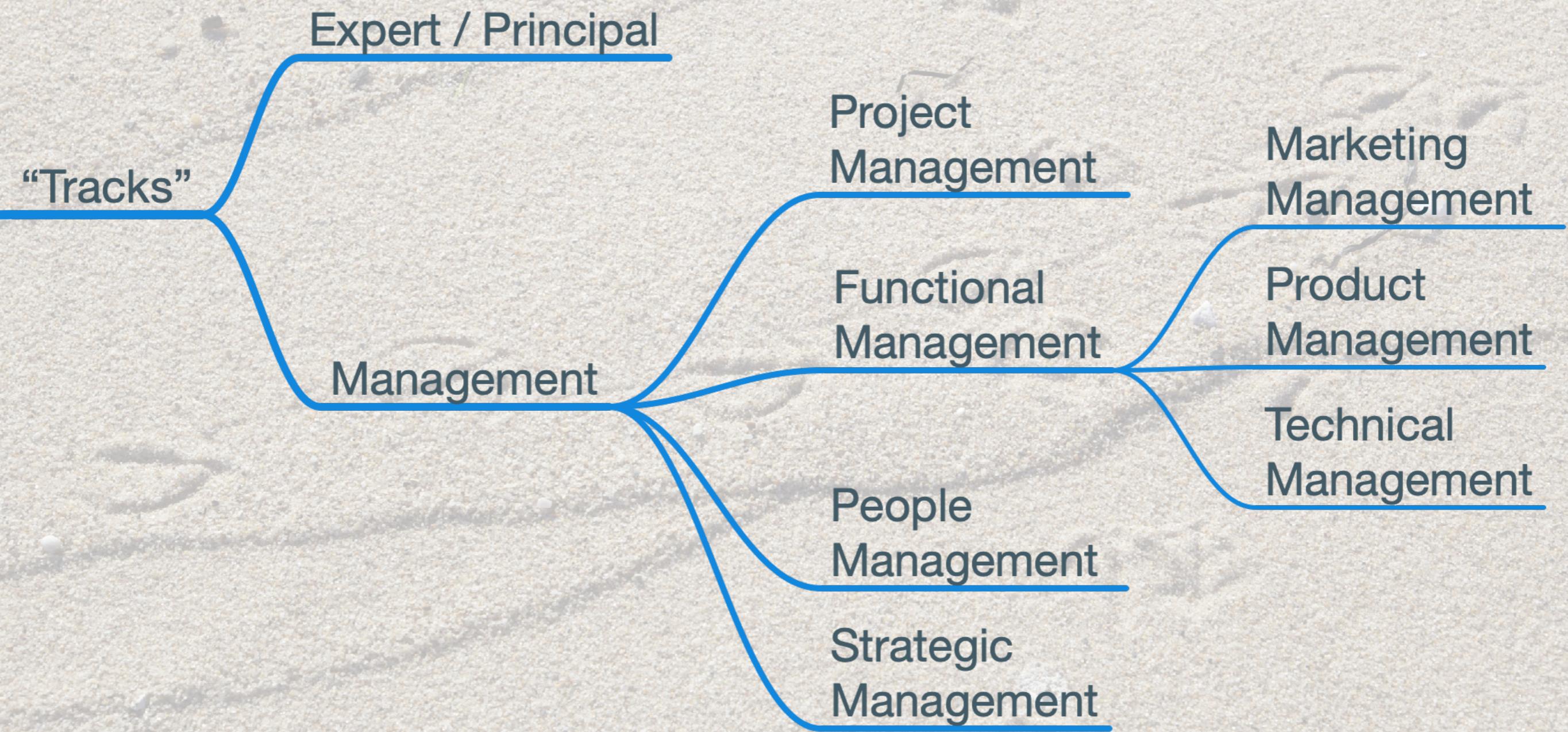


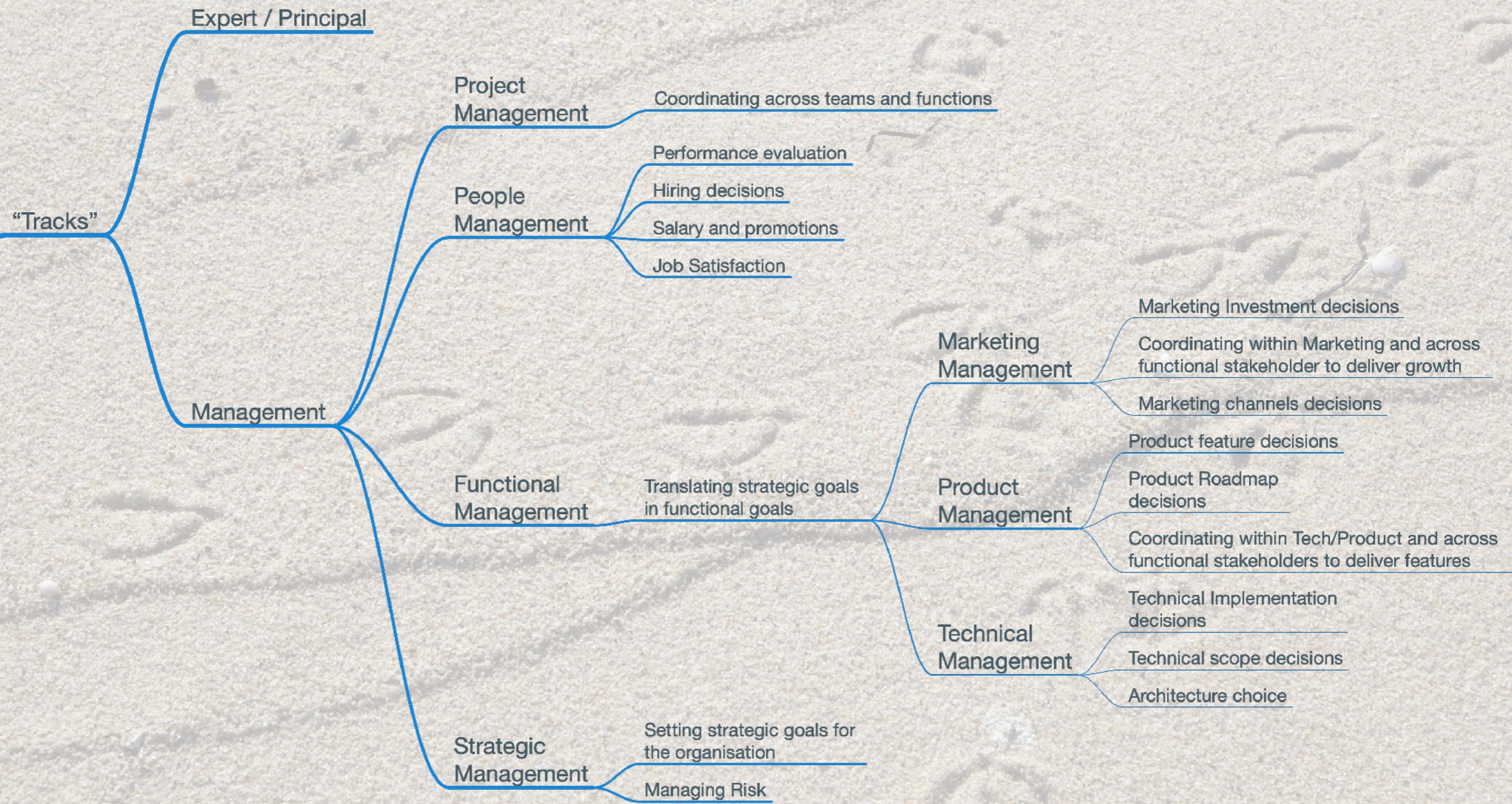
Expert / Principal

“Tracks”

Management



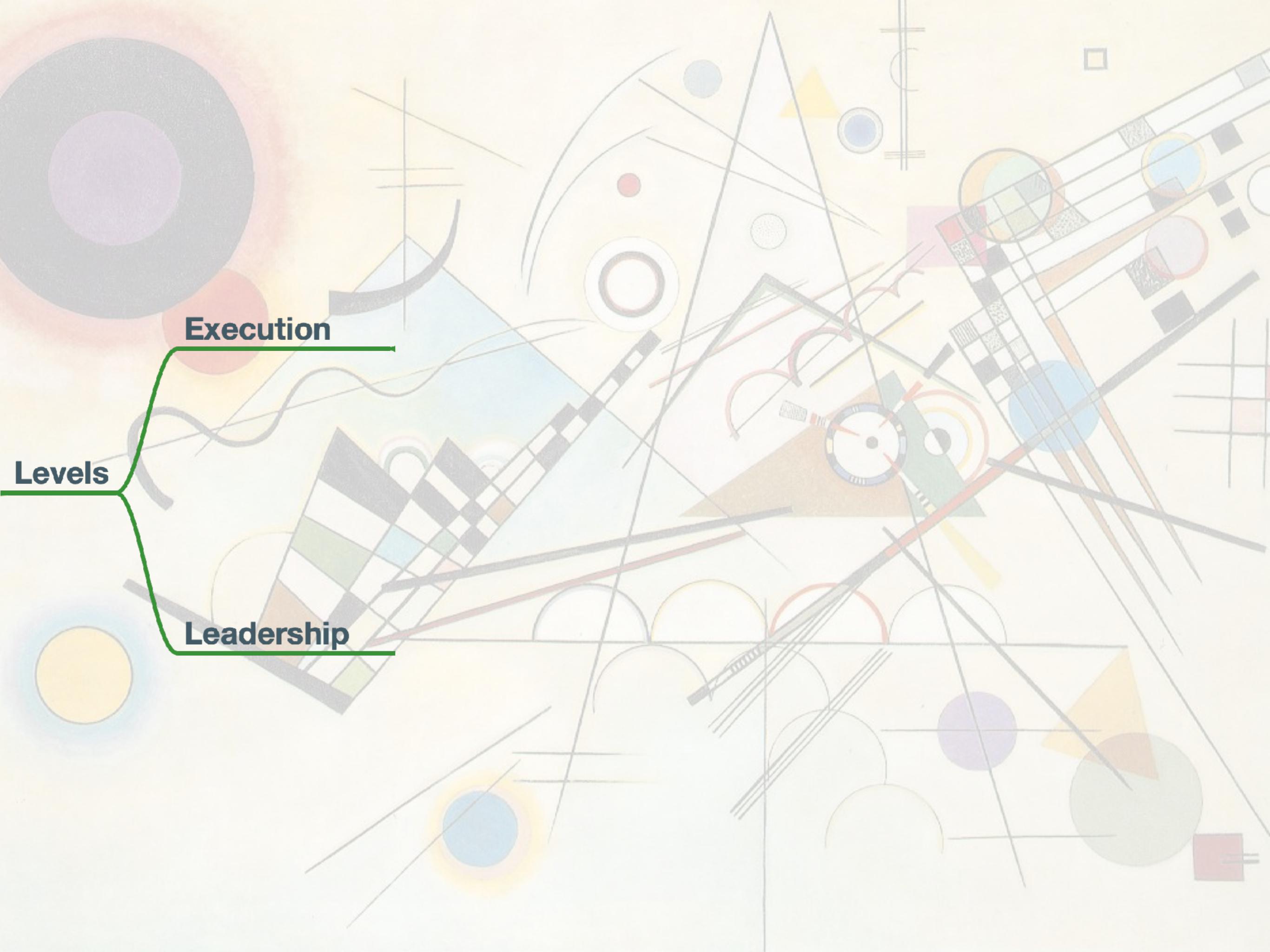




The background of the slide features a complex, abstract geometric composition. It includes various shapes such as circles, triangles, and rectangles in a variety of colors like black, white, yellow, blue, green, and red. The shapes are arranged in a non-linear, overlapping manner, creating a sense of depth and movement. Some shapes have internal patterns, such as a checkered grid or a radial design.

# Skill Levels

Execution  
Leadership  
Knowledge



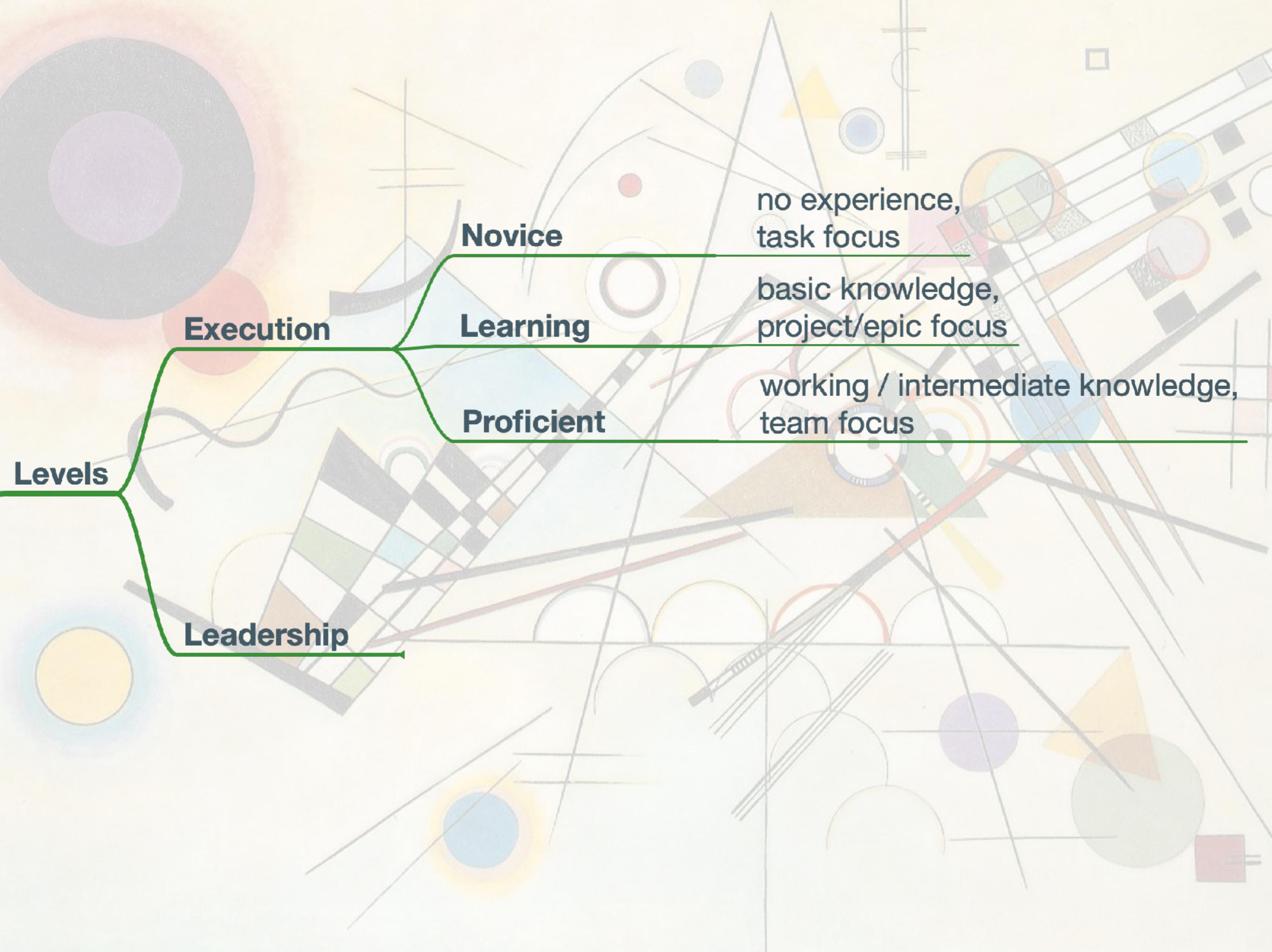
**Levels**

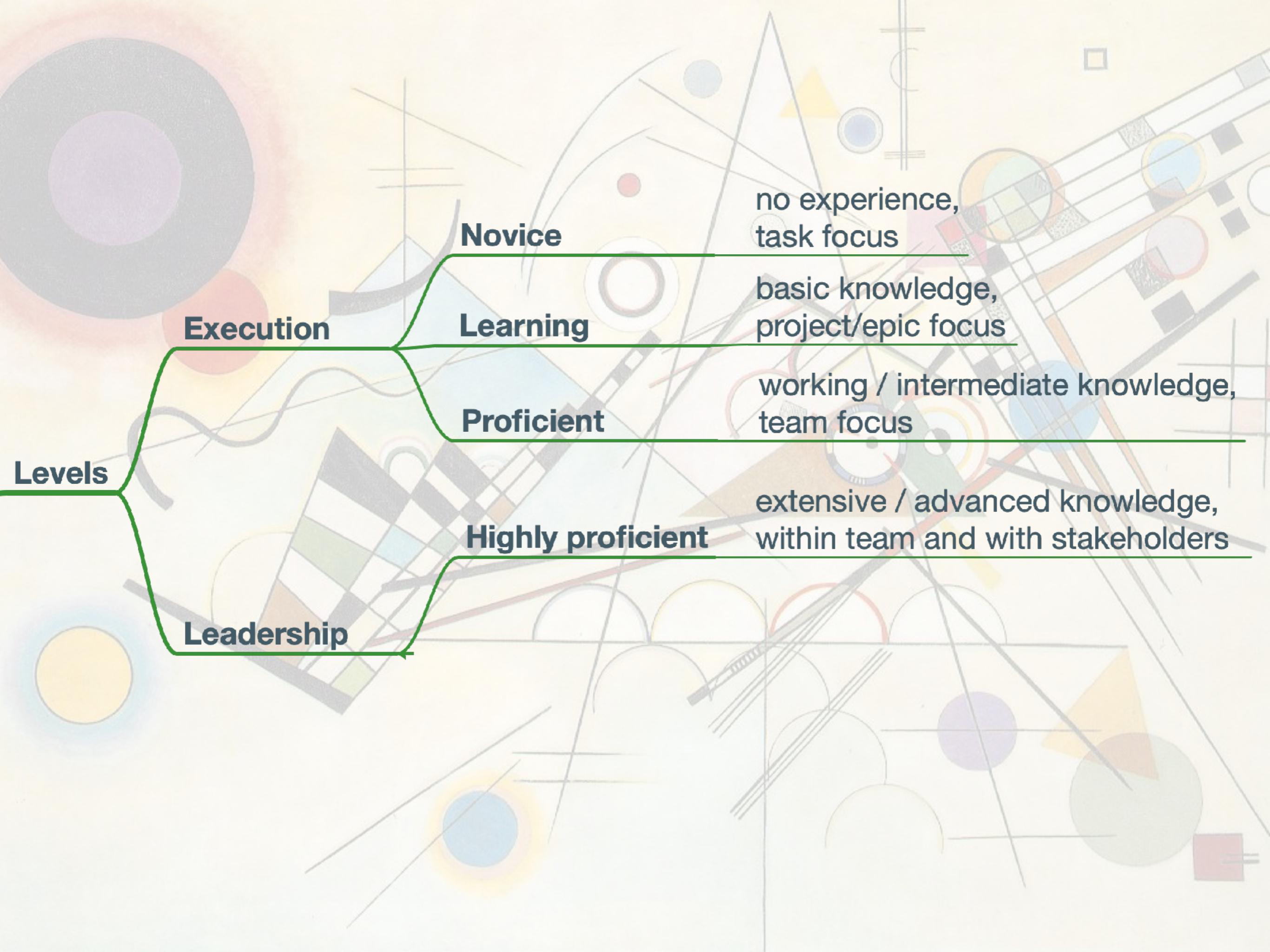
**Execution**

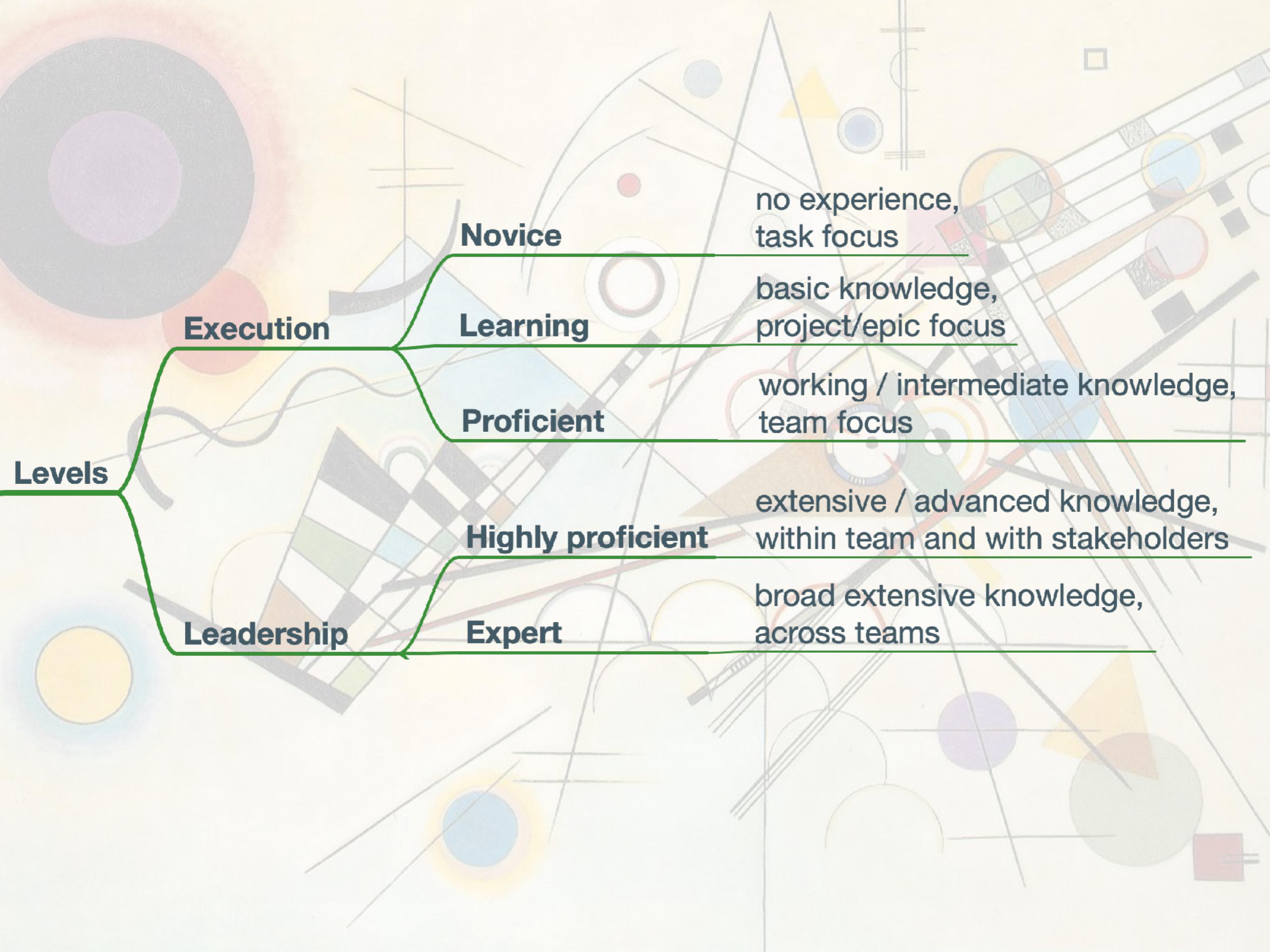
**Leadership**

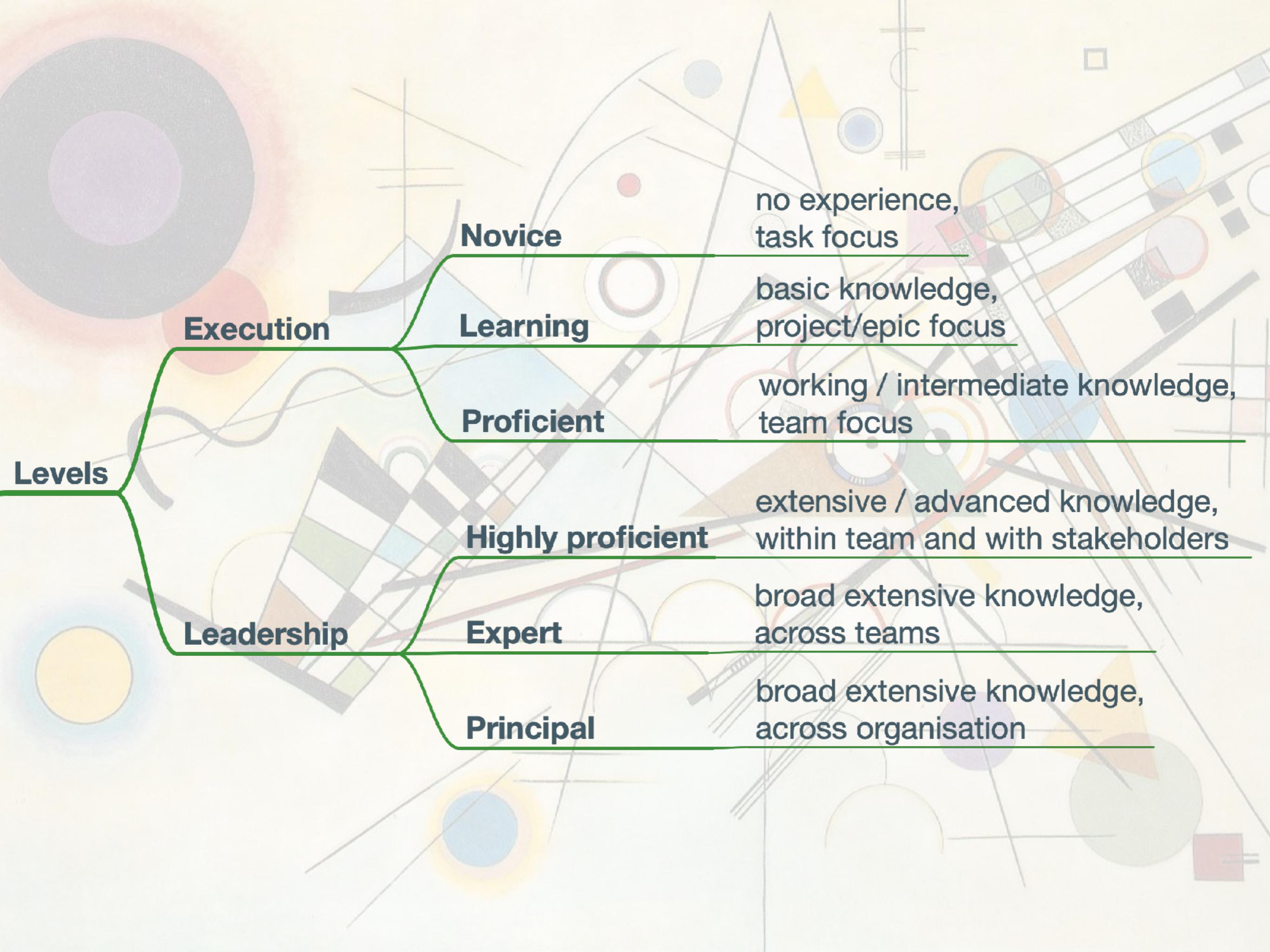














# “Hard” Skills

Data Engineering and wrangling  
Software Engineering  
Math / Stats / Alg  
Data Visualisation  
DevOps & Security  
Domain / Business Knowledge

# Data Engineering and wrangling

Data Modeling

Data Validation

ETL

Map Reduce

Streaming Data ETL

User and load  
management

# **Software Engineering**

Writing code

Debugging

Testing

Observability

Understanding code

Architecture







**Data Visualisation**

Exploratory  
Visualisation

Explanatory  
Visualisation

Storytelling

D3

Typography

Color Theory

Visual Design

Interactive Design



**DevOps & Security**

Cloud Deployment  
Continuous Integration  
Infrastructure as Code  
Information Security  
Threat Monitoring

## KPI design

Identifying business problems and opportunities

Transforming business problems and opportunities into data problems

Economics

Marketing

Business Models

Finance

Sales

Purchasing

Customer Support

Organisational Structure

HR

Product

Market Research

Domain/Market Specific Knowledge

PR

B2B, B2C

Subscription / Micro-payments / Service Provider / eCommerce / etc.

Enterprises / Star-ups

Functional / Cross functional

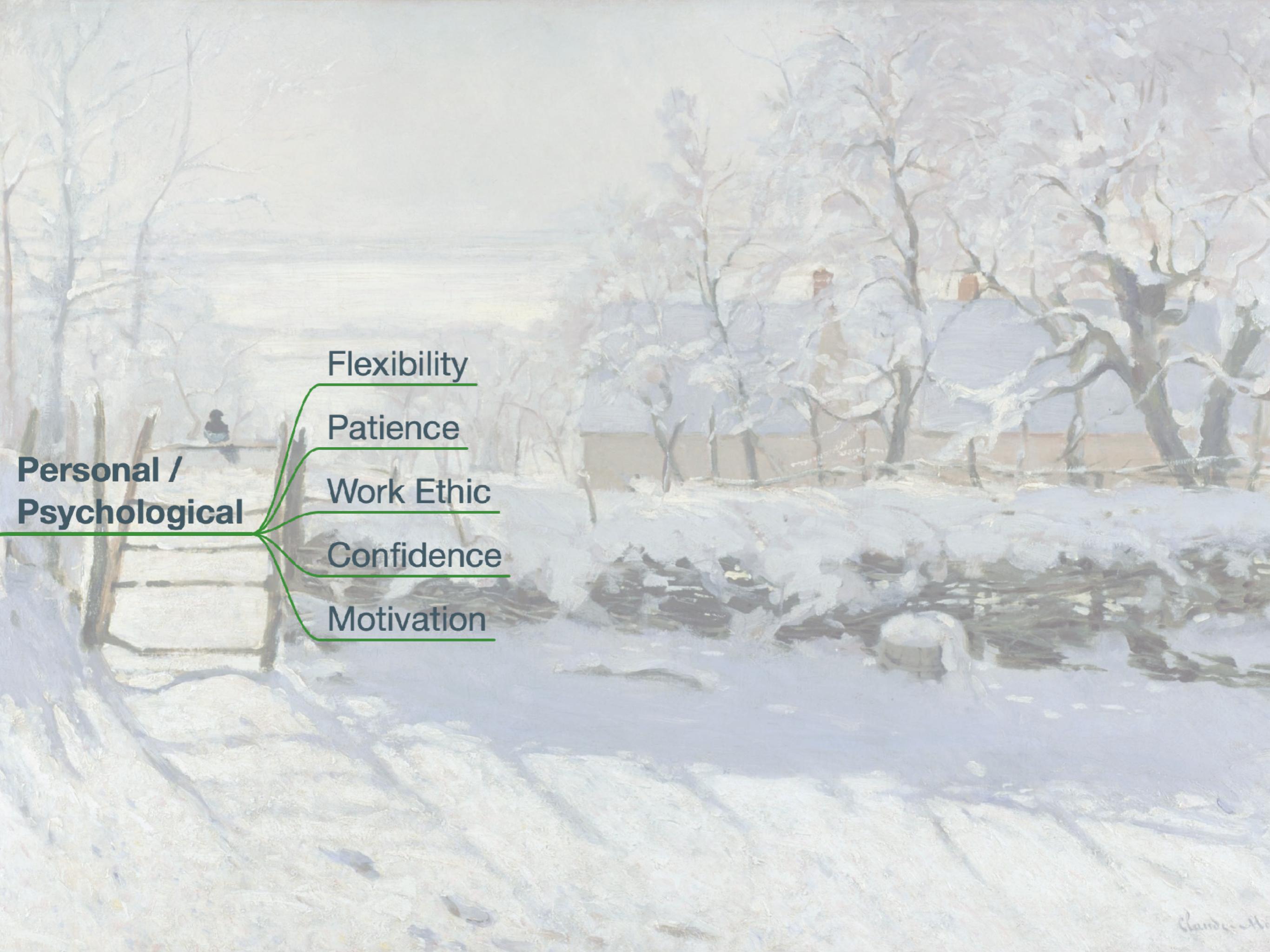
Remote / Distributed / Single location

**Business Knowledge**



# “Soft” Skills

Personal / Psychological  
Feedback, Communication, Collaboration  
Delivery  
Project Management  
Leadership  
Strategy



**Personal /  
Psychological**

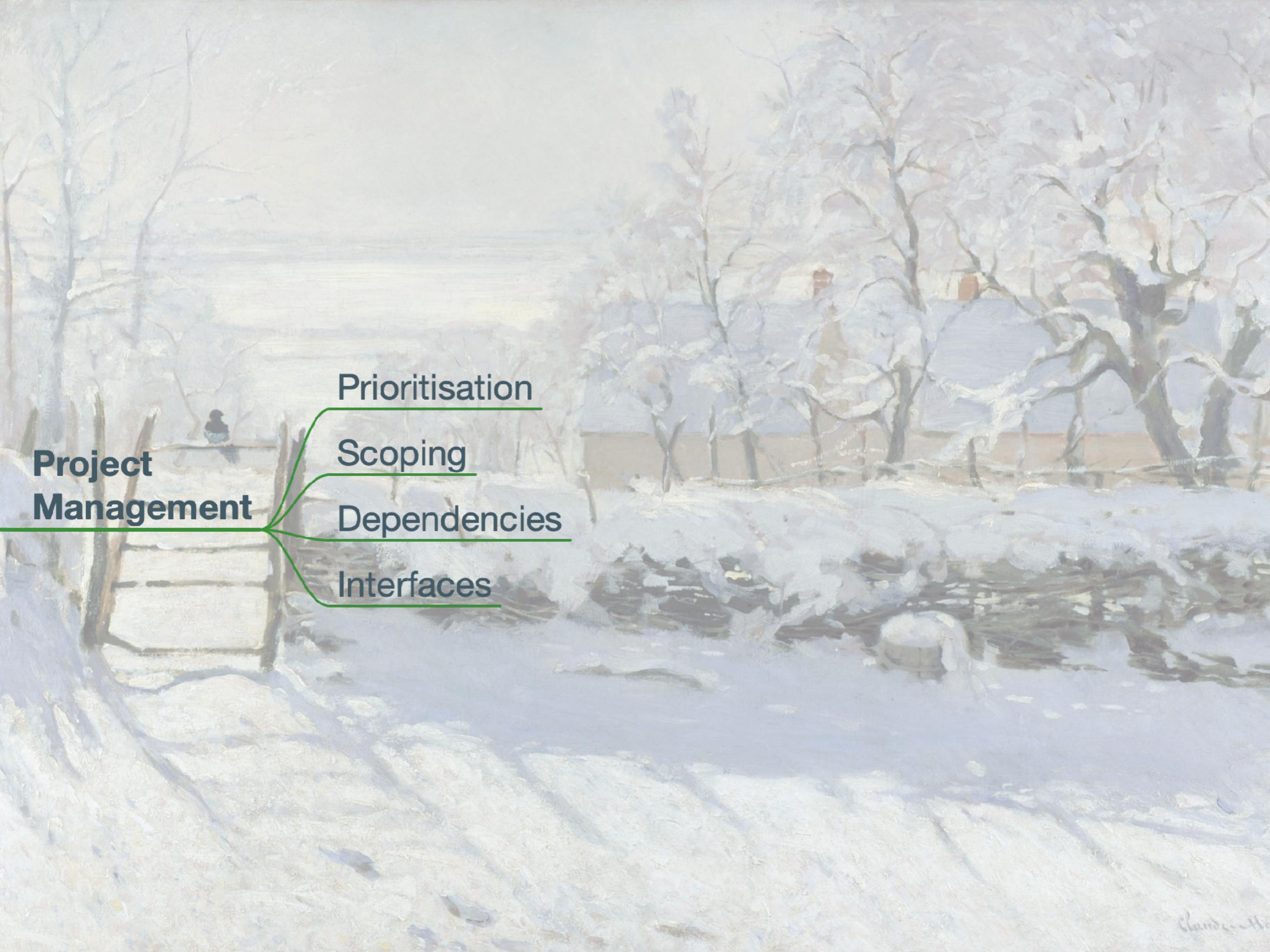
Flexibility  
Patience  
Work Ethic  
Confidence  
Motivation



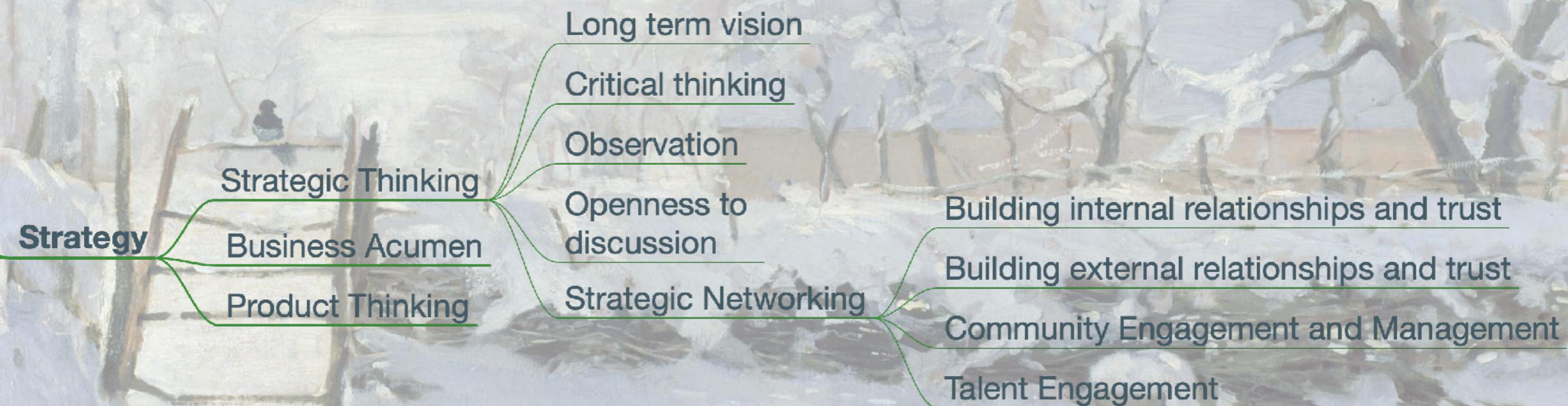
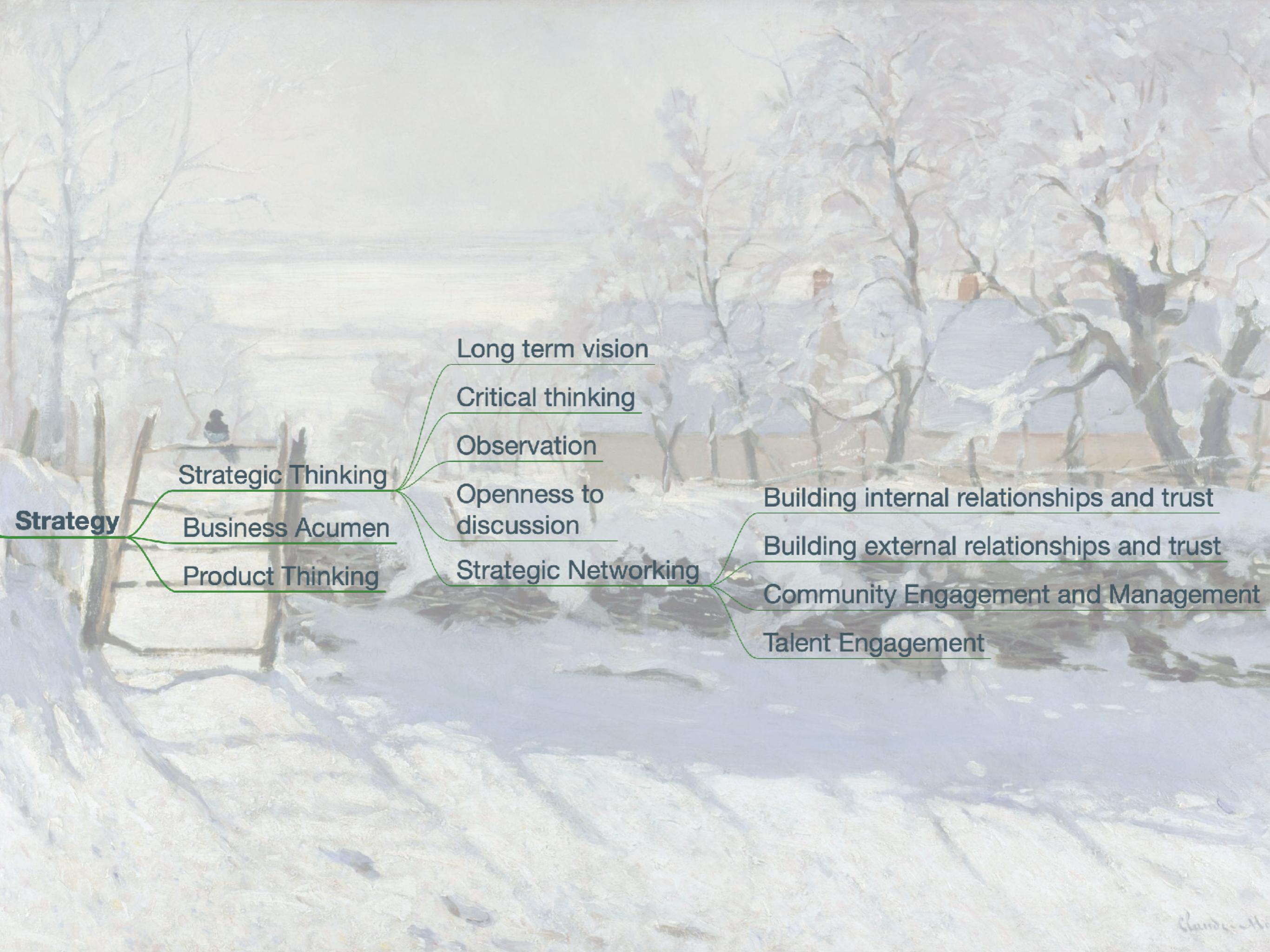


# **Project Management**

Prioritisation  
Scoping  
Dependencies  
Interfaces





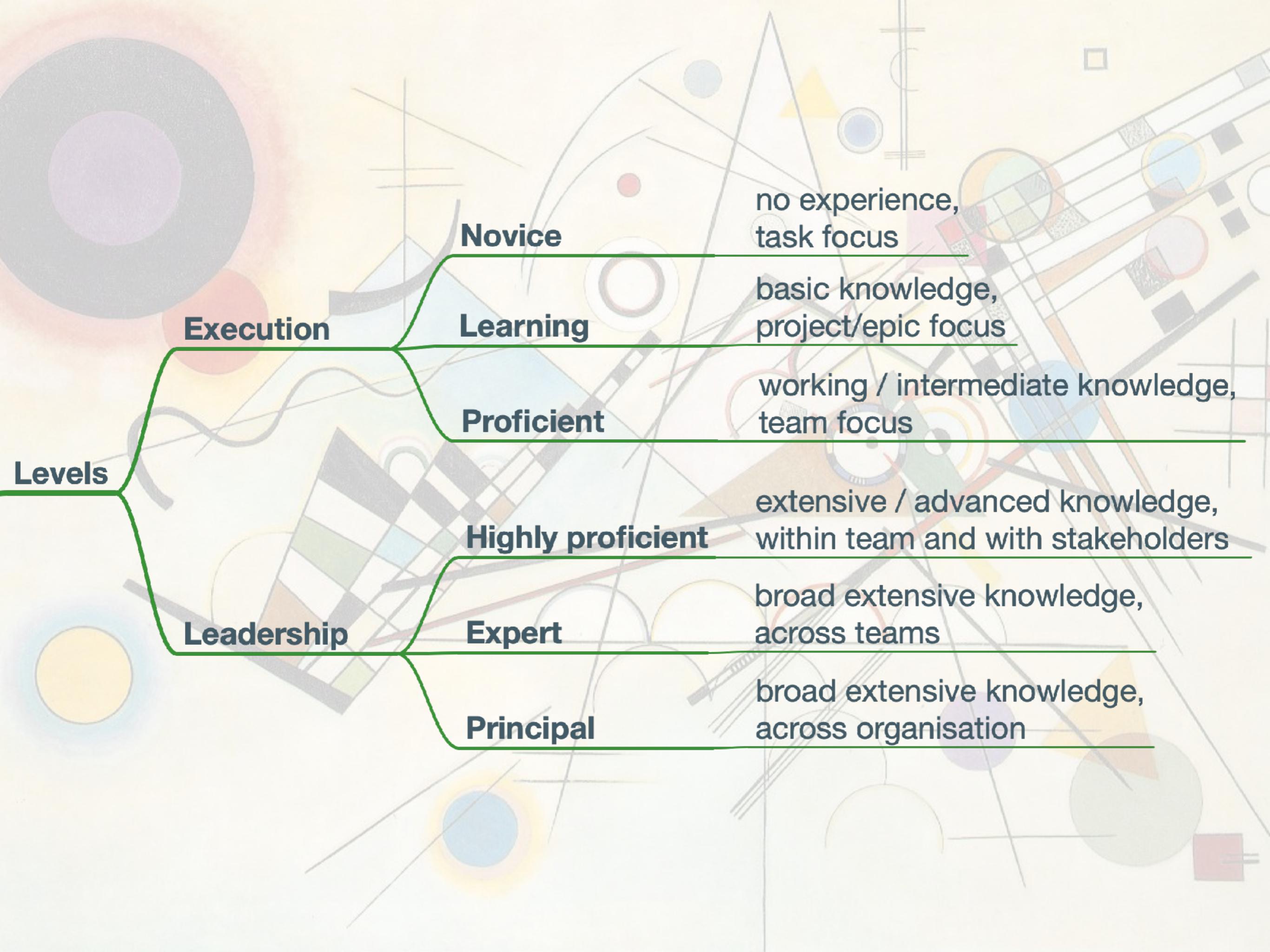


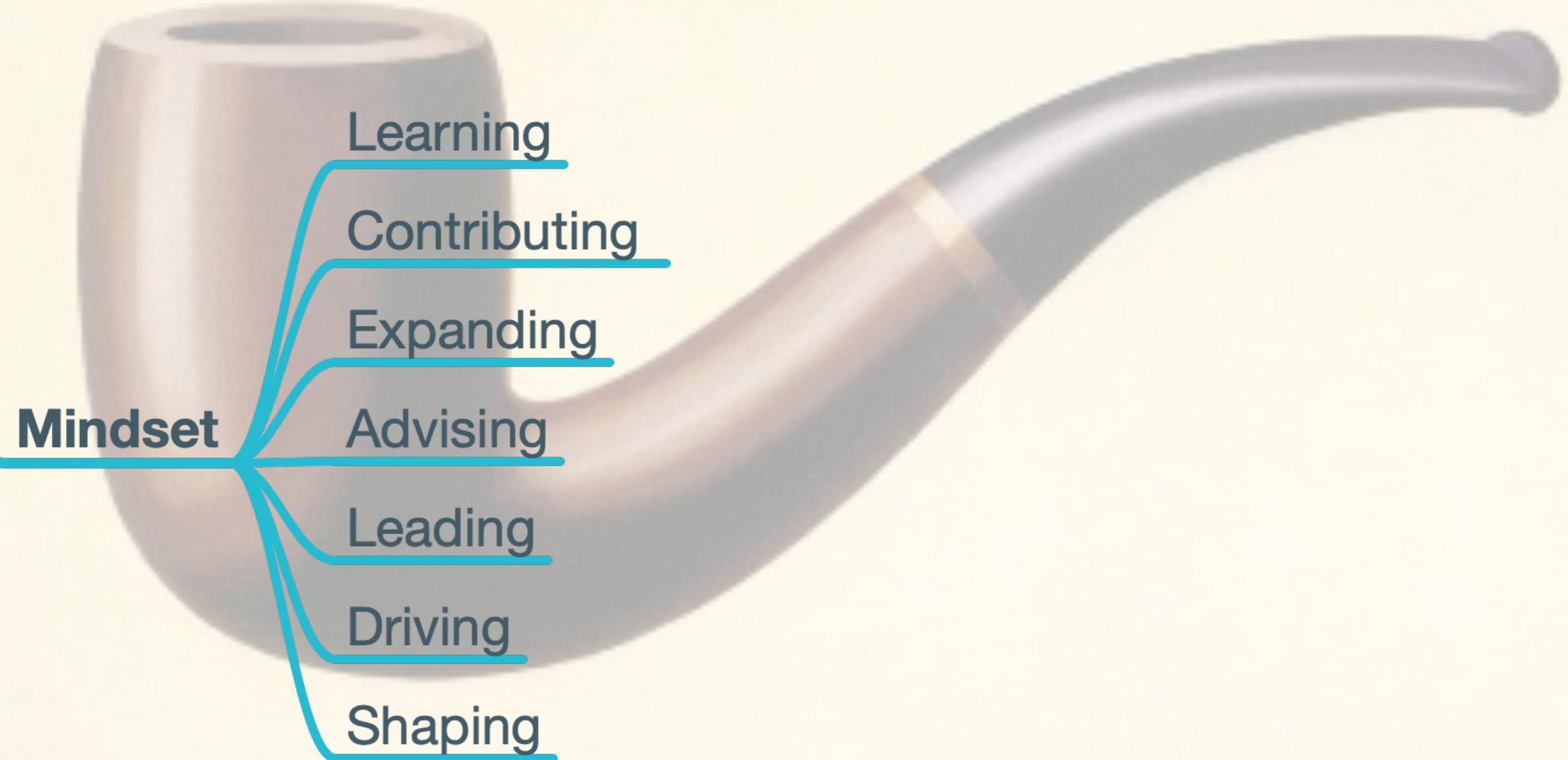


# Mindset

Let's get personal

*Ceci n'est pas une pipe.*



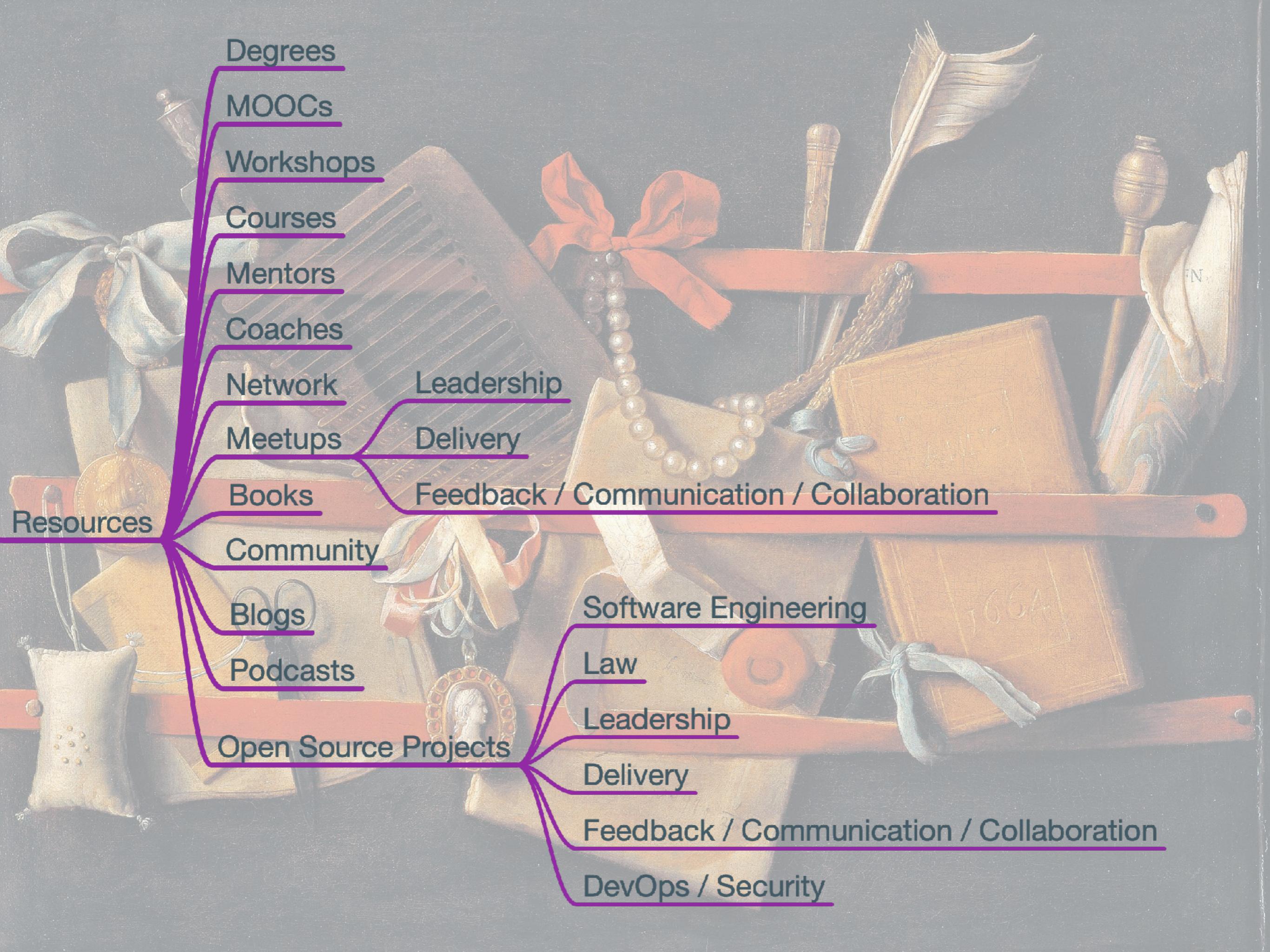


*Ceci n'est pas une pipe.*

A detailed still life painting on a dark background. It includes a large open book with a red ribbon, a quill pen, a compass, a telescope, a small globe, a pair of spectacles, a gold medal, and several smaller items like beads and a small pouch.

# Resources

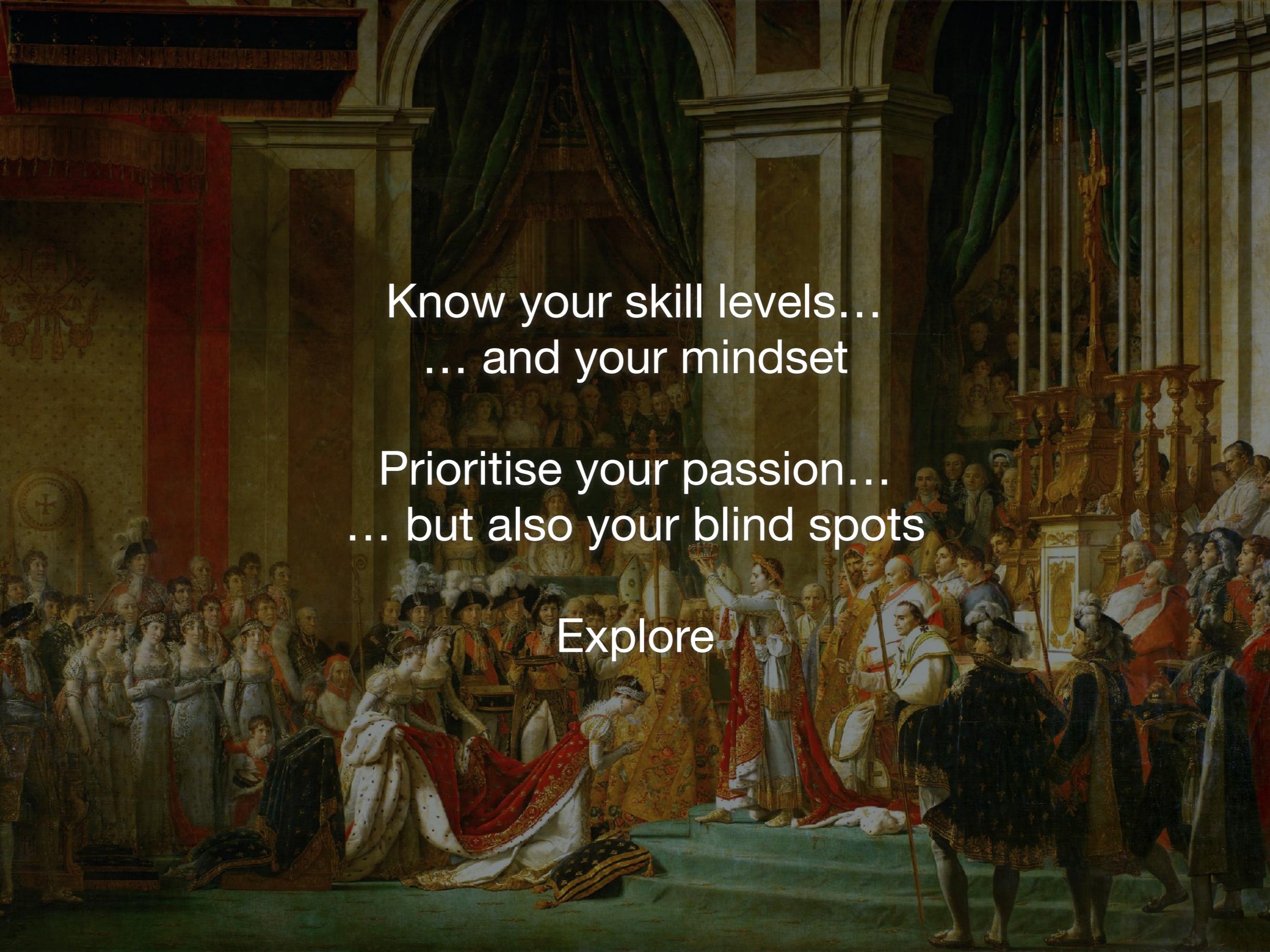
On-the-job  
Provided by work  
Independant  
Community  
Open Source



# In Practice

How do I use all of these?





Know your skill levels...  
... and your mindset

Prioritise your passion...  
... but also your blind spots

Explore

**Career Tracks**  
**Skills: Levels, “Hard”, “Soft”**  
**Mindset**  
**Resources**  
**In Practice**

# Thank You