

# Chapter 1

## Project Context and Purpose

### Introduction

In this first chapter, we will focus on the general context of the project. We will first introduce the host company ODDO BHF, then showcase the problematic, the proposed solution and an overview of threat emulation and an explanation of terms related to the project context.

### 1.1 Host Company: ODDO BHF

ODDO BHF is a Franco-German financial group with a history dating back more than 170 years. It was founded by a French family-owned bank ODDO and a German bank specialising in small and mid-sized companies BHF-bank. They joined forces and officially became ODDO BHF in 2017.

Providing services in various financial areas including investment banking, asset management, private wealth management, and corporate banking, the company operates in Europe and has a global reach through its various subsidiaries and partnerships.

ODDO BHF offers a range of financial products and services to corporate clients, institutional investors, and private clients. It has a strong presence in France, Germany, and other European countries, and it aims to provide comprehensive financial solutions to its clients.



Figure 1.1: ODDO BHF Logo [1]

### 1.1.1 Services

ODDO BHF provides its customers with several services which are described in the following:

- **Private Banking:**  
Wealth management and investment advice for high-net-worth individuals and families.
- **Asset management:**  
Investment solutions for institutional investors, such as pension funds and insurance companies
- **Private equity:**  
Investing in non-listed companies with high growth potential
- **Corporate and investment banking:**  
Providing financial services to corporations, such as mergers and acquisitions, and debt and equity financing.
- **Banking services to financial players:**  
Providing custody, clearing, and other services to other financial institutions.
- **Asset servicing:**  
Providing back-office services to asset managers, such as account custody, fund administration, and transaction processing. [1]

### 1.1.2 ISM: Information Security Management

Information Security Management (ISM) is the dedicated department within ODDO BHF responsible for safeguarding the organization's information systems and data from cyber threats. The ISM department is comprised of three specialized teams: a blue team, a red team, and a control team. Each team plays a crucial role in the overall cybersecurity strategy. The blue team focuses on defensive measures. The red team simulates cyberattacks, acting as adversaries to test the organization's defenses and identify potential weaknesses. Finally, the control team ensures compliance with security policies and regulations, implementing and monitoring the necessary safeguards. It is within this department that our project has been successfully realized.

## 1.2 Project framework

### 1.2.1 Problematic

As technology advances more, it increases connectivity. However, it also creates new security challenges for businesses. While advancements bring us closer, they also expose us to more potential weaknesses. Hackers are constantly improving their skills, finding clever ways to exploit these vulnerabilities in systems. These targeted attacks can be devastating, making strong cybersecurity more important than ever in our digital world.

The rapid rise of cyber threats forces organizations to face a growing number of security risks. At the top of the list of risks facing enterprises is ransomware, a form of malware that seizes control of a victim's data or device, demanding payment to regain access or avoid further harm.

### 1.2.2 Ransomware Danger

Ransomware is a malicious software program specifically designed to stop users and organizations from accessing their computer files. Cybercriminals achieve this by encrypting the files, essentially scrambling them with a complex code. They then demand a ransom payment in exchange for a decryption key, which unlocks the data. This forces organizations into a difficult situation where paying the ransom might