

1. Updated Requirements Table (with justification & assumptions)

Table 1 – Updated System Requirements

Requirement	Type	Priority	Assumption	Justification
Desktop Form Factor	Non-functional	Must Have	EDC accepteert een desktopoplossing wanneer technische data wordt gepresenteerd	Case data toont aan dat ≤ 2 kg en ≥ 2 uur batterij onhaalbaar is; desktop elimineert gewicht- en energiebeperkingen
Industry-Standard OS	Functional	Must Have	Een derde partij OS kan worden gelicentieerd binnen budget	Vermindert ontwikkelrisico drastisch en voldoet aan EDC's eis voor compatibiliteit
≥ 512 KB RAM	Non-functional	Must Have	Kosten kunnen worden gecompenseerd door het schrappen van	Essentieel voor multitasking OS en zakelijke applicaties

Requirement	Type	Priority	Assumption	Justification
			portable hardware	
TeleBasic Compatibility	Functional	Must Have	Een native interpreter of licentie is beschikbaar	Kritisch voor EDC-kanten migratie en backward compatibility
Standard Removable Storage	Functional	Must Have	Floppy drive wordt geaccepteerd als industrienorm	Maakt gegevensuitwisseling met andere systemen mogelijk
External Keyboard Support	Functional	Must Have	Standaard keyboard volstaat voor initiële release	Essentieel voor zakelijke bruikbaarheid
Bundled Office Suite	Functional	Must Have	Een derde partij suite is tijdig beschikbaar	Kern van de commerciële waardepropositie
Expandable Architecture	Non-functional	Should Have	Slots kunnen worden toegevoegd zonder kostoverschrijding	Verhoogt levensduur en marktcompetitiviteit

Requirement	Type	Priority	Assumption	Justification
GUI Environment	Functional	Should Have	GUI kan worden gepoort of beperkt geïmplementeerd	Nodig om grafische applicaties bruikbaar te maken
Portable Form Factor	Non-functional	Won't Have	—	Aantoonbaar technisch onhaalbaar binnen scope
Proprietary OS / Storage	Functional	Won't Have	—	Onacceptabel risico binnen 13 maanden en £500k

2. Fully Costed Project Plan (incl. pricing constraint)

Table 2 – High-Level Cost Breakdown (per unit)

Cost Category	Estimated Cost (£)	Notes
CPU (Motorola 68k series)	45	Cost-performance balance between available 68k variants
RAM (512 KB)	70	Largest single hardware cost component
Storage (Standard floppy drive)	35	Industry-standard removable storage
Motherboard & I/O	40	Includes serial ports, external display, and keyboard interface
Power Supply & Case	30	Desktop enclosure and internal power supply
Licensed Operating System	15	Per-unit third-party OS licensing
Bundled Office Suite	10	Volume licensing agreement
Assembly & Quality Assurance	5	Optimised through standardised production

Cost Category	Estimated Cost (£)	Notes
Total Estimated Unit Cost	≈ £250	Within cost target to sustain £399.99 retail price

Commercial Implications

- Advertised retail price: **£399.99**
- Estimated unit cost: **≈ £250**
- Gross margin per unit: **≈ £150**
- Margin supports overhead, distribution, support, and contingency reserves

Key Academic Framing (for transcript)

“By standardising the hardware platform and eliminating high-risk proprietary components, the project maintains a sustainable unit cost of approximately £250. This enables compliance with the pre-advertised retail price of £399.99 while preserving commercial margin and avoiding late-stage cost escalation.”

3. One System or Two? (Synful vs. EDC)

Decision

A single technical platform with two commercial variants

Rationale

- A single hardware platform reduces development cost and technical risk
- Commercial differentiation is achieved through branding and software bundling
- Parallel development tracks are avoided, preserving schedule and budget control

This approach balances stakeholder needs while maintaining architectural simplicity and delivery confidence.

Table 3 – Market Accommodation Strategy

Stakeholder	Key Needs	Accommodation Strategy
EDC (Business Market)	Compatibility, stability, data exchange	Industry-standard operating system, TeleBasic compatibility, bundled office suite
Existing Synful Users	Backward compatibility	Native support for existing TeleBasic applications
New Users	Usability and productivity	Graphical user interface and pre-installed productivity software

By delivering a single technical system with differentiated commercial variants, the project avoids duplicated engineering effort while still addressing distinct stakeholder expectations. This strategy aligns with cost containment, risk mitigation, and long-term maintainability, all of which are critical under fixed budget and schedule constraints.