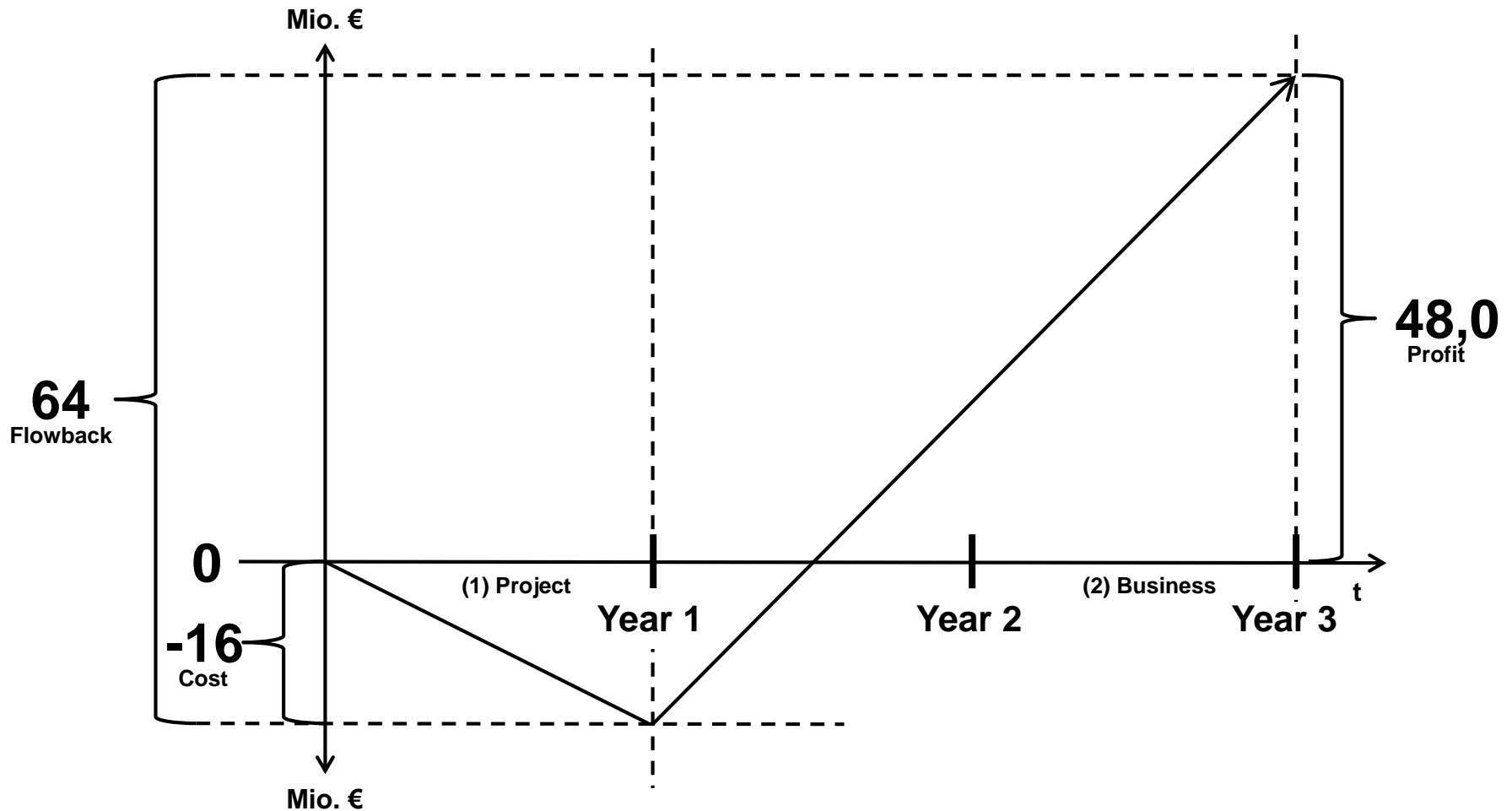


Plan & Baseline: SW Development



Plan & Baseline: SW Development

(1) Plan Project:

- Project duration: 12 months, and 265 working days;
- Daily rate: **1 PPM with 1,500 €**, 1,200 € per 49 MA;
- Project Cost: 16 million €; employee full capacity
- Ø achievement of past projects: app. **75% - 80%**

(2) Plan Business Operation:

- Software product in 3 years no longer usable
(competition then plans to introduce better product);
- 32 million euro cash inflows for each year
(87,672 € per day of use with 2 years of use)

✓ **Plan Profit: 48 million €**

(64 million € business operation – 16 million € project)

Efficiency – SW Development

$90\% * \text{Daily Rate} + 35\% * \text{Daily Rate} * [(SPI (Q) \uparrow 4) * (CPI (Q))]$

PPM calculation:

✓ **Good Runner:** $(90\% + 35\% [110\% \uparrow 4 * 110\%]) * \text{Daily rate}$

⇒ $(90\% + 35\% [1.61]) * \text{Daily rate} = \underline{1.46} * \text{Daily Rate}$

⇒ 1.752.- €

✓ **Plan Runner:** $(90\% + 35\% [100\% \uparrow 4 * 100\%]) * \text{Daily rate}$

⇒ $(90\% + 35\% [1.00]) * \text{Daily rate} = \underline{1.25} * \text{Daily Rate}$

⇒ 1.500.- €

➤ **Average Runner:** $(90\% + 35\% [75\% \uparrow 4 * 75\%]) * \text{Daily rate}$

⇒ $(90\% + 35\% [0.23]) * \text{Daily rate} = \underline{0.98} * \text{Daily Rate}$

⇒ 1.176.- €

! **Bad Runner** $(90\% + 35\% [50\% \uparrow 4 * 50\%]) * \text{Daily rate}$

⇒ $(90\% + 35\% [0.03]) * \text{Daily rate} = \underline{0.911} * \text{Daily rate}$

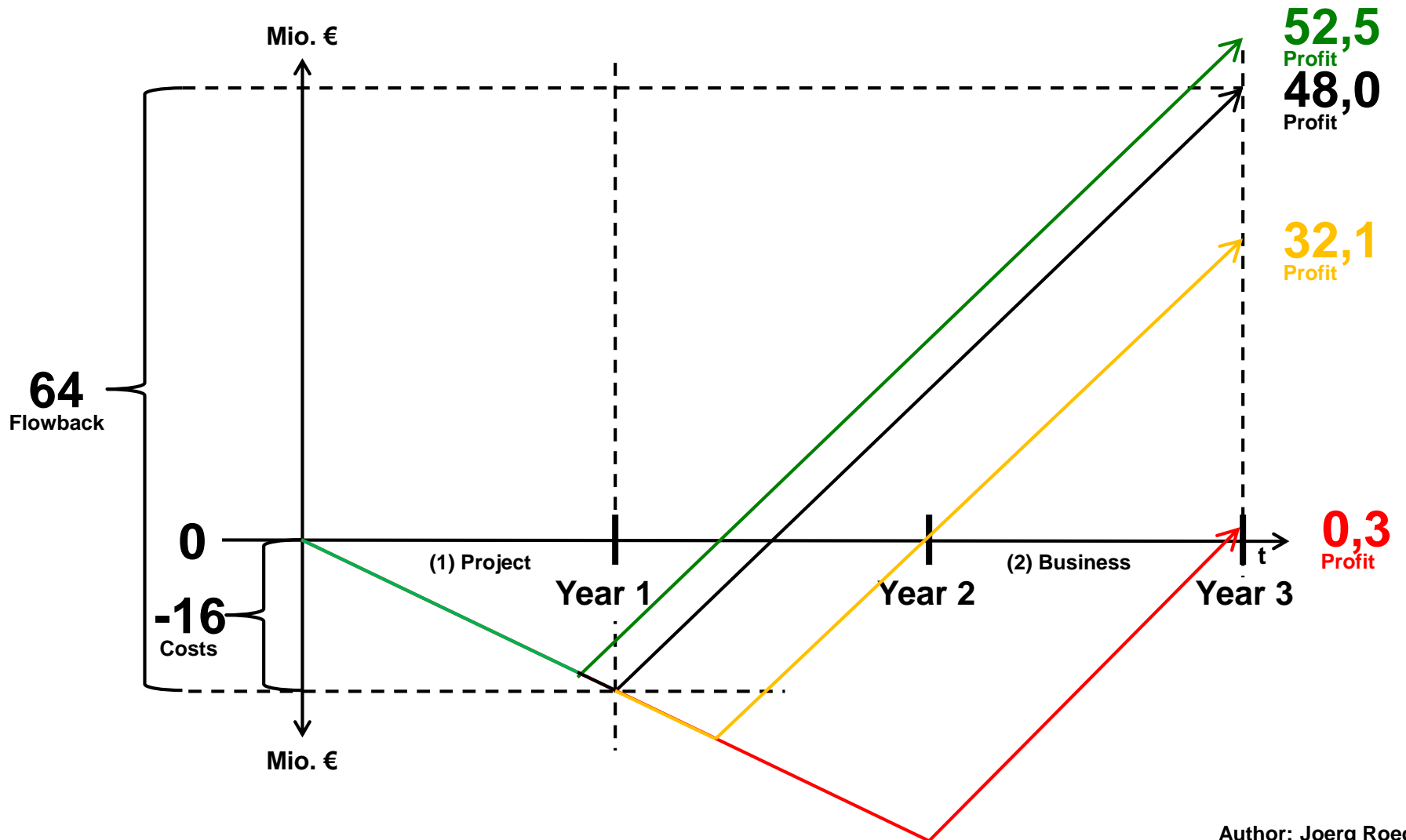
⇒ 1.093.- €

Efficiency – SW Development

Project calculation:

- ✓ **Good Runner: [110% SPI; 110% CPI] => 52,5 Mio. € Profit**
 - (1) 240,9 WorkingDays * (49 MP*1.200 €/D + 1.752 €/D) = -14,5 Mio. € (-14,5 instead)
 - (2) 763 CalendarDays (33 days gained) = 66,9 Mio. €
- ✓ **Plan Runner: [100% SPI; 100% CPI] => 48,0 Mio. € Profit**
 - (1) 265 WorkingDays * (49 MP*1.200 €/D + 1.500 €/D) = -16,0 Mio. € (-16,0 instead)
 - (2) 730 CalendarDays (exact duration) = 64,0 Mio. €
- **Average Runner: [75% SPI; 75% CPI] => 32,1 Mio. € Profit**
 - (1) 353,3 WorkingDays * (49 MP*1.200 €/D + 1.176 €/D) = -21,2 Mio. € (-21,3 instead)
 - (2) 608 CalendarDays (122 days delayed) = 53,3 Mio. €
- ! **Bad Runner: [50% SPI; 50% CPI] => 0,3 Mio. € Profit**
 - (1) 530 WorkingDays * (49 MP*1.200 €/D + 1.081 €/D) = -31,7 Mio. € (-32,0 instead)
 - (2) 365 CalendarDays (365 days delayed) = 32,0 Mio. €

Efficiency – SW Development



Efficiency – SW Development

Calculation of limits:

- ! **Difference Bad Runner – Good Runner: -52,2 Mio. €**
- ✓ **Good Runner-PPM daily rate that could have been paid in comparison to Bad Runner-PPM ?**

Approx. 217.000 € Daily Rate !!!

(52.2 Mio. € / 240.9 WorkingDays)

Plan Runner-PPM approx. 180.000 € Daily Rate

(47.7 Mio. € / 265 WorkingDays)

Average Runner-PPM approx. 90.000 € Daily Rate

(31.8 Mio. € / 353.3 WorkingDays)