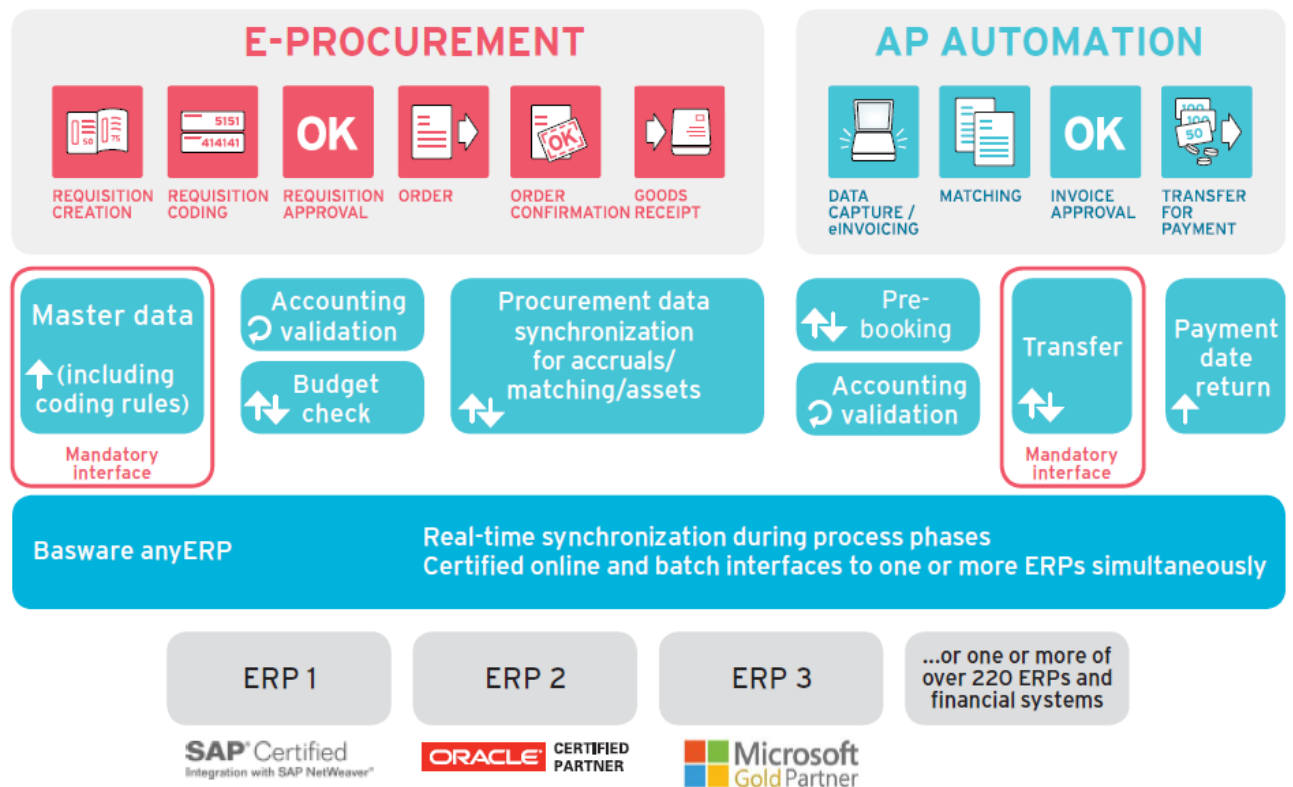**Case study Basware**

(Figure 5 Multi-ERP integration enabled by Basware anyERP.)

Source: White Paper-Basware Solution Integration in Mutli-Erp Environments, Basware Corporation (2017)

1. In the above figure (Multi-ERP integration enabled by Basware anyERP) the purchase module is presented. Explain how this purchase module operates for a focal company in the supply chain. You are allowed to clarify your line of reasoning with so-called flow diagrams. **(10 points)**

2. What is the added value for a focal company in the supply chain to use this IT-platform. Provide 5 possible added value examples for a focal company. Explain your line of reasoning! **(10 points)**

3. What other Supply Chain Finance solutions Bassware is offering? Mention 5 solutions. **(5 points)**

From the 2017 annual report of Heineken the following data are retrieved:

	2017 (in millions of €)	2016 (in millions of €)
Revenues	21,888	20,792
Costs of Sales	13,540	13,003
Net Profit (= NOPAT)	2,153	1,739
Equity	14,521	14,573
Assets	41,034	39,321
Inventories	1,814	1,618
Accounts Receivables	3,895	3,380
Accounts Payables	6,756	6,224
Current Liabilities	10,458	10,397

Source: Annual report Heineken 2017

4. Calculate the following sub-questions for 2017 <u>and</u> 2016 (show your calculations!):

    a. The decomposition of the ROE according the DuPont formula
        i. Net Profit Margin **(2 points)**
        ii. Total Asset Turnover **(2 points)**
        iii. Equity multiplier **(2 points)**
    b. Net working capital (SCF definition). **(2 points)**
    c. Day's sales in receivables (DSO). **(2 points)**
    d. Day's purchases in payables (DPO). **(2 points)**
    e. Inventory turnover period (DIO). **(2 points)**
    f. Cash to cash cycle. **(2 points)**
    g. How do you interpret the over-all outcome of your calculations? Explain your line of reasoning, use the calculated ratios for that. **(4 points)**

In the 2016 annual report of Howden the following additional data were found:

Company Beta (β)	0.82
Risk free interest rate (R_{RF})	1.2%
Required market return shareholders (R_E)	14.7%
Corporate tax rate (T)	24% or 0.24
Cost of debt (R_D)	5.7%

Source: Annual report Howden 2017 & Reuters

5. Calculate the WACC <u>and</u> the EVA for Heineken. Show your calculations. **(10 points)**

6. Give a SCF interpretation of the calculated WACC and EVA in question 5. **(5 points)**

7. In the article about a *'Conceptual model of SCF for SME's'* the IT platform plays an important role.

   a. Mention 4 examples of such an IT platform (being not operated by a bank and/or financial institution). **(4 points)**

   b. Explain why a good performing IT and independent platform is so for a company. Explain your answer. **(6 points)**

8. A firm offers terms of 1.8/10, net 60 (Customers have 60 days to from the invoice date to pay the full amount; however, if payment within 10 days, a 1.8 per cent cash discount can be taken). What is the effective annual rate (EAR) of paying after: 60 days or paying within 10 days? Show your both calculations. **(5 points)**

9. Mention two strategic, two tactical and two operational supply chain finance instruments. **(5 points)**

10. You participated in the supply Chain Finance simulation: The Cool Connection.

    a. What was your job / role in the game?
    b. What was your learning experience in terms of single loop and double loop learning? **(20 points)**

The End of the Exam!

Appendix Some financial formulas

$$ROE = \frac{Net\ Profit}{Revenues} * \frac{Revenues}{Assets} * \frac{Assets}{Equity}$$

$$\varepsilon = \frac{Equity}{Assets}$$

$$\lambda = \frac{Debts}{Assets}$$

$$WACC = R_E * \varepsilon + R_D * \lambda * (1 - \tau)$$

$$R_E = R_{RF} + \beta * (R_M - R_{RF})$$

$$EVA^{TM} = NOPAT - Capital\ employed[1] * WACC$$

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[1] Capital Employed = Assets – Current Liabilities = Equity + Long term liabilities = Fixed Assets + Net Working Capital