

Meeting Minutes - 28th Meeting for Subgroup Digital Twin within WG Supply Chain for the Industrial Alliance 19.06.2026

Meeting	Date	Participants	Name of the speaker	Deadline	Status	Comments	Links
1	05.06.2026	Hans Elm, Christine O'Brien, Arthur Doussik, Rafael Alvarez (RESER), Henrik Schmitt, Sven Reumert, OCE, Alex Jovan, Boris de Joux	Hans Elm				
Item 4	Item Type	Topic	A.J. Doussik, President, Infineon/Infocenter	Deadline (A/J)	Status (A/J)	Comments	Links
1	Information	Intro & Topic introduction	Hans Elm				
2	Information	General Overview of our approach: WG Survey is responsible for identifying market, policy and industry signals. The results of WG Survey are combined with an AI-based information. Reinert build the input for the Chance and Risk Matrix of the WG Scope WG Scope is responsible of creating and reviewing with experts in bi-weekly discussions the Chance and Risk Matrix WG Digital Twin is responsible for up to date data flow for all clusters The Chance & Risk as well as the information from the Digital Twins then function as an input for the Stress Test WG Stress Test works with an Analytic Simulation to identify reaction options to grow chances and mitigate risks. The Scenarios can also be helpful for the Chance & Risk Matrix as well as an input for the commission on how to harvest chances and mitigate risks	Hans Elm		Done		
3	Information	Digital Twin Homepage overview & Stress Test status: -The IA on processors and semiconductor working group supply chain homepage is not, you can ask for access messaging Arthur Doussik -Overview of the page, now it's all debugged, can find meeting minutes and slides there -The Middle east report coupled with the rest of the reports will be posted there -On the stress test, we considered looking at the market cap evolution to see the risks and chances of different events -Semiconductor market was almost 18% of global market as of Q3/Q4/2026 -Looking now at how the market cap affects turnover, we can already see a direct relation where turnover follows market cap with a month of delay -We're looking to find a way to link it to innovation	Arthur Doussik, Anna Linsenman		Done		
	Information	Introduction to Ontology and overview of Onto Quest and Learning tool: -Overview of the ontology, how it works, what are its value added for a semiconductor alliance -Data management of a very large data set - linking Market Cap to Companies and Companies to Regions -Ontology is now available and can be explored interactively via the link on the right -GitHub Repository is also publicly available at the link on the right Open to feedback or questions on Ontology structure and data	Christine O'Brien		Done	GitHub Repository	OntoQuest
6	Information	Stress Test Simulation Scope: -New scope of the considered supply chain for the simulation, no consumers or applications -Details on the model logic: Information, financial, material flow -Agent based simulation with every regional cluster represented by an agent -Conceptual Picture of the expected results (market share for turnover evolution) -Works on Available to Promise Logic -Objective is for companies in the IA to use a model to simulate their proprietary strategy	Arthur Doussik		Done		
7	Information	Next Steps: -Continue developing the ontology -Work on calibrating the simulation -Providing secure access monitoring for the Digital Twins Homepage	Hans Elm		Done		
8	Information	Positive Feedback from all participants. -A working example of the simulation is requested	Everyone		Done		
10	Summary/ Meeting Announcement	Next Scope meeting on July 3rd and next Digital Twin meeting on July 17th. Next week meeting in Brussels 26th of June face to face	Hans Elm		Done		

Meeting Minutes - 27th Meeting for Subgroup Digital Twin within WG Supply Chain for the Industrial Alliance 05.06.2026

Meeting	Date	Participants	Name of the speaker	Deadline	Status	Comments	Links
1	05.06.2026	Hans Elm, Christine O'Brien, Arthur Doussik, Lutz Gieger, Carlos Parillo, Hans & Schmitt, Sven Reumert, OCE, Alex Jovan, Boris de Joux	Hans Elm				
Item 4	Item Type	Topic	A.J. Doussik, President, Infineon/Infocenter	Deadline (A/J)	Status (A/J)	Comments	Links
1	Information	Intro & Topic introduction	Hans Elm				
2	Information	General Overview of our approach: WG Survey is responsible for identifying market, policy and industry signals. The results of WG Survey are combined with an AI-based information. Reinert build the input for the Chance and Risk Matrix of the WG Scope WG Scope is responsible of creating and reviewing with experts in bi-weekly discussions the Chance and Risk Matrix WG Digital Twin is responsible for up to date data flow for all clusters The Chance & Risk as well as the information from the Digital Twins then function as an input for the Stress Test WG Stress Test works with an Analytic Simulation to identify reaction options to grow chances and mitigate risks. The Scenarios can also be helpful for the Chance & Risk Matrix as well as an input for the commission on how to harvest chances and mitigate risks	Hans Elm		Done		
3	Information	Digital Twin Homepage overview & Stress Test status: -The IA on processors and semiconductor working group supply chain homepage is not, you can ask for access messaging Arthur Doussik -Overview of the page, all the relevant info regarding the working group can be found there, with all the different subgroups, meeting minutes, slides... -The Middle east report will eventually be posted there as well -On the stress test, we considered looking at the market cap evolution to see the risks and chances of different events -Semiconductor market was almost 18% of global market as of Q3/Q4/2026 -Looking now at how the market cap affects turnover, we can already see a direct relation where turnover follows market cap with a month of delay	Arthur Doussik		Done		
	Information	Introduction to Ontology and overview of Onto Quest and Learning tool: -Overview of the ontology, how it works, what are its value added for a semiconductor alliance -Data management of a very large data set - linking Market Cap to Companies and Companies to Regions -Overview of Learning Tool and OntoQuest, you can play these interactive games/ scenarios to learn about ontologies better, any feedback is appreciated (link on the right)	Christine O'Brien		Done	OntoQuest	
6	Information	New AI dependency report: -High EU dependence on non-EU AI chips, fab, cloud, and key inputs -Concentrated AI infrastructure and weak EU supply-chain visibility increase risk -EU leverage: indispensable semiconductor equipment + AI governance and secure AI capabilities -Policy focus: supply-chain digital twin, AI factories scale-up, procurement and standards to build indispensability Feedback is appreciated (the report is still a draft)	Christine O'Brien		Done	Report with MoD mail	
7	Information	Next Steps: AI dependency report: feedback + start research/data collection Stress test: continue Analytic simulation + workshop with (dis)agreements Stress test: process turnover data for study linkage Ontology/Learnings: feedback/debug ontology game + continue ontology development	Arthur Doussik		Done		
8	Information	Positive Feedback from all participants. -Should we modify the NOP report given that the company is changing? -update the ontology slides to better include the purpose of the ontology	Everyone		Done		
10	Summary/ Meeting Announcement	Next Scope meeting on June 12th and next Digital Twin meeting on June 15th	Hans Elm		Done		

Meeting Minutes - 26th Meeting for Subgroup Digital Twin within WG Supply Chain for the Industrial Alliance 08.05.2026

Meeting	Date	Participants	Name of the speaker	Deadline	Status	Comments	Links
1	22.05.2026	Hans Elm, Christine O'Brien, Anna Linsenman, Aurelia Troner, Sara Giacomini, Arthur Doussik, Janis Luchter, Rafael (RESER), Sven (OCE)	Hans Elm				
Item 4	Item Type	Topic	A.J. Doussik, President, Infineon/Infocenter	Deadline (A/J)	Status (A/J)	Comments	Links
1	Information	Intro & Topic introduction	Hans Elm				
2	Information	General Overview of our approach: WG Survey is responsible for identifying market, policy and industry signals. The results of WG Survey are combined with an AI-based information. Reinert build the input for the Chance and Risk Matrix of the WG Scope WG Scope is responsible of creating and reviewing with experts in bi-weekly discussions the Chance and Risk Matrix WG Digital Twin is responsible for up to date data flow for all clusters The Chance & Risk as well as the information from the Digital Twins then function as an input for the Stress Test WG Stress Test works with an Analytic Simulation to identify reaction options to grow chances and mitigate risks. The Scenarios can also be helpful for the Chance & Risk Matrix as well as an input for the commission on how to harvest chances and mitigate risks	Hans Elm		Done		

3	Information	Middle East conflict report overview: - The content opens an Introduction/Context, Detailed Risk and Opportunity Assessment, Overview over EU Policy Response/Policy recommendations - The Middle East Tension Report received feedback from Pierre Chastanet and Iringelis as well as internally in the Industrial Alliance within multiple iterations - The final version that we are submitting today, on May 22nd 2026 - First version of documentation page on purpose and provisions of the report now existing on Infrazon servers	Aurilia Teaser	Done	The report is attached to the meeting minutes mail, the documentation page will be made public soon	
	Information	Memory Report overview: - The Case of Qimonda shows, that Europe's low market share today is largely a result of its own policy - The Memory demand and prices are rising to AI, cloud computing and rising memory intensity across sectors - Main risks: supplier concentration (Samsung, Micron, SK Hynix) and a small market share - Therefore Europe is in a price-taking role and is highly dependent - Chances and recommendations: Support R&D with new ideas, diversification, not building everything in Europe, but secure reliable access - Needs to be checked, why the memory prices after 2027 will decrease	Anna Linemann	Done	Report draft attached with meeting minutes	
6	Information	Status of Stress Test: (Middle east conflict market cap approach) 300 of the main semiconductor related companies are analyzed for their market cap before and after the middle east conflict These companies are also separated in their respective clusters and their respective regions Distribution of market cap across clusters in Europe and Globally is shown, also among regions Also the clusters that are more upstream on the supply chain suffer greater losses New approach using market cap fluctuation as a predictor of revenue, a graph is shown where the revenue follows closely the market cap with a small delay.	Arthur Dossak	Done	Middle east analysis	
5	Information	Introduction to Ontology and Use Cases Data management of a very large data set - linking Market Cap to Companies and Companies to Regions Two main reports - Market_Capitalization and Regional_Concentration (both data sets not being collected)	Christine O'Brien	Done		
7	Information	Next Steps: Next weeks: Finish report on memory chips shortage Next Months: Add interactions between regions, Add more products (through in different nodes (lines), include capacity constraints, Model historic chances & risks & add what is needed ...etc.	Hans Ehm	Done		
8	Information	Positive feedback from all participants. It's about what is the justification behind the memory chip predicted price drop in 2027, Anna to follow up on that The ACCSEM team will try to see if the visitors to the digital twin can be monitored Investigation pending on a possible second survey on the silicon shortage Possibility of linking turnover and market cap with innovation	Everyone	Done		
10	Summary/ Meeting Announcement	Next Scope meeting on May 29th and next Digital Twin meeting on June 5th	Hans Ehm	Done		

Meeting Minutes - 25th Meeting for Subgroup Digital Twin within WG Supply Chain for the Industrial Alliance 08.05.2026						
Meeting	Date	Participants	Name of the owner	Deadline	Status	Comments
1	08.05.2026	Hans Ehm, Viktorie Kibbe, Christine O'Brien, Anna Linemann, Gertien Houzler, Jordien Tiesse, Sam Claessens, Pierre Chastanet, Robert Dossak (SCS), Sam Baumann (JCE), Timo, Jolter Halverson (Infra Group), Timo	Hans Ehm			
Item #	Item Type	Topic	A/R Owner/Responsible	Deadline (A/R)	Status (A/R)	Comments
1	Information	Policy & Recommendations	Hans Ehm		Done	
2	Information	General Overview of our approach: WG Survey is responsible for identifying market, policy and industry signals. - The results of WG Survey are combined with an AI based information Retrieval build the input for the Chance and Risk Matrix of the WG Scope WG Scope is responsible of creating and reviewing with experts in bi-weekly discussions the Chance and Risk Matrix WG Digital Twin is responsible for up to date data flow for all clusters The chances & risks as well as the information from the Digital Twins then function as an input for the Stress Test WG Stress Test works with an Analytic Simulation to identify reaction options to grow chances and mitigate risks. The Scenarios can also be helpful for the Chance & Risk Matrix as well as be an output for the commission on how to harvest chances and mitigate risks	Hans Ehm		Done	
		Status Digital Twin				
		The Website with links to all clusters was shown with a new landing page including the General Approach - There is a special page dedicated to the Iran war Website with the Digital Twins for all clusters is only 1% internal, therefore there are pdf versions of the Digital Twin in the Sharedrive of the Supply Chain Working Group - The team is working on making the "pretty" website available for all members on the IA Sharedrive	Yannick Schlotterer		Done	
	Information	Status Semiconductor Report: The report as a DMFT is currently receiving feedback The content opens an Introduction/Context, Detailed Risk and Opportunity assessment, Overview over EU policy response/Policy recommendation Added links on our spending to semiconductor spending Added detail on silicon shortage, market response to crisis Streamed down scenario Analysis	Aurilia Teaser		Done	Please find the report attached to the email with the meeting minutes
		Report is finished				
		Status Memory Report: - Currently in process - The Qimonda case shows that Europe's low market share today is not only an accident of the market, but largely the result of its own policy and ownership choices. - Supplier concentration and rising memory demand lead to bottlenecks - To reach Europe's goal to increase Europe's market share by 20% in 2030 we need to focus on diversification of suppliers and supporting production, packaging and R&D in Europe - The policy challenge is not to build everything in Europe, but to secure reliable access where Europe remains structurally dependent via a "stable" cross-border dependency framework	Anna Linemann		Ongoing	Draft version of the report will be shared soon
5	Information	Status of Stress Test: (Market Cap first approach) - 10 companies are evaluated for market cap over the last 6 decades to see semiconductor industry expansion - A plot is shown to represent the global economy market share of the semiconductor sector, to see its economic importance Status of Stress Test: (Middle east conflict market cap approach) 300 of the main semiconductor related companies are analyzed for their market cap before and after the middle east conflict - These companies are also separated in their respective clusters and their respective regions - Impact of the conflict is shown, south Korea and Japan are the most affected by the conflict. - Also the clusters that are more upstream on the supply chain suffer greater losses - Still working on an Ontology for the Market capitalization of the semiconductor industry	Hans Ehm		Done	
6	Information	Next Steps: Next weeks: Finish report on memory chips shortage Next Months: Add interactions between regions, Add more products (stress in different nodes (lines), include capacity constraints, Model historic chances & risks & add what is needed ... etc.	Hans Ehm		Done	Middle east analysis
8	Information	Positive feedback from all participants. Market Cap and Market Share are combined in one simulation but the validation is ongoing.	Everyone		Done	
10	Summary/ Meeting Announcement	Next Scope meeting on May 15th and next Digital Twin meeting on May 22th	Hans Ehm		Done	

Meeting Minutes - 24th Meeting for Subgroup Digital Twin within WG Supply Chain for the Industrial Alliance 17.04.2026						
Meeting	Date	Participants	Name of the owner	Deadline	Status	Comments
1	17.04.2026	Hans Ehm, Arthur Dossak, Christine O'Brien, Anna Linemann, Gertien Houzler, Jordien Tiesse, Anne Chastanet, Pierre Chastanet, Jorgens Strom, Michael Laß (Infra), Sam Baumann	Hans Ehm			
Item #	Item Type	Topic	A/R Owner/Responsible	Deadline (A/R)	Status (A/R)	Comments
1	Information	Policy & Recommendations	Hans Ehm		Done	
2	Information	General Overview of our approach:				
		WG Survey is responsible for identifying market, policy and industry signals. The results of WG Survey are combined with an AI based information Retrieval build the input for the Chance and Risk Matrix of the WG Scope WG Scope is responsible of creating and reviewing with experts in bi-weekly discussions the Chance and Risk Matrix				
		WG Digital Twin is responsible for up to date data flow for all clusters The chances & risks as well as the information from the Digital Twins then function as an input for the Stress Test WG Stress Test works with an Analytic Simulation to identify reaction options to grow chances and mitigate risks. The Scenarios can also be helpful for the Chance & Risk Matrix as well as be an output for the commission on how to harvest chances and mitigate risks	Hans Ehm	Done		
3	Information	Status Digital Twin:				
		The Website with links to all clusters was shown with a new landing page including the General Approach There is a special page dedicated to the Iran war Website with the Digital Twins for all clusters is only 1% internal, therefore there are pdf versions of the Digital Twin in the Sharedrive of the Supply Chain Working Group The team is working on making the "pretty" website available for all members on the IA Sharedrive	Gertien Houzler, Anna Linemann	Done		

	Information	Status Semiconductor Report: -The report as a DRAFT is currently receiving Feedback -The content opens an Introduction/Context, detailed Risk and Opportunity assessment, Overview near to policy response/Policy recommendation -Added info on war spending as semiconductor spending -Added detail on future on shortages, market response to crisis -Streamlined down scenario Analysis Report is finished	Aurilia Tesser		Done		Link
4	Information	Anylogic Simulation No further updates	Hans Ehm		Done		
5	Information	Status of Stress Test: (Market Cap first approach) 26 companies are evaluated for market cap over the last 5 decades to see semiconductor industry explosion -A plot is shown to represent the global economy market share of the semiconductor sector to see its relative importance Status of Stress Test: (Middle east conflict market cap approach): -50% of the main semiconductor related companies are analyzed for their market cap before and after the middle east conflict -These companies are also separated in their respective clusters and their respective regions -Impact of the conflict is shown, south Korea and Japan are the most affected by the conflict -Also the clusters that are more upstream on the supply chain suffer greater losses -Still working on an Ontology for the Market capitalization of the Semiconductor industry	Arthur Dossia		Done		Middle east analysis
6	Information	Next Steps: -Next weeks: Finish report on memory chips shortage -Next Months: Add interactions between regions, Add more products (shown in different nodes (shown, include capacity constraints, Model historic chances & risks, & add what is needed – etc.	Hans Ehm		Done		
8	Information	It's brought up that the data study on the middle east conflict is interesting and should be presented to the stakeholders in the EU commission	Florian Balduf		Done		
10	Summary/ Meeting Announcement	Next Scope meeting on April 24th and next Digital Twin meeting on May 8th	Hans Ehm		Done		

Meeting Minutes - 23th Meeting for Subgroup Digital Twin within WG Supply Chain for the Industrial Alliance 27.03.2026

Meeting	Date	Participants	Name of the speaker	Deadline	Status	Comments	Links
1	27.03.2026	Hans Ehm, Victoria Kike, Yannis Schloesser, Gertraude Baessens, Wilfried Yarmings, Christine O'Brien, Arthur Dossia, Sven Baumann (ZVEI), Horst Schmeider/Dynalco, Sara Giavalini, Dailly Padilla/Avanics, Yareck Welter, Achille/Imat/Imat, Thomas Lenz, Lutz/Infineon	Hans Ehm				
Item 1	Item Topic	Topic	A.J. Dossia, Christine Schmeider	Deadline (A.J.)	Status (A.J.)	Comments	Links
1	Information	General Overview of our approach: -The WG Survey is responsible for identifying market, policy and industry signals. -The content opens an Introduction/Context, detailed Risk and Opportunity assessment, Overview near to policy response/Policy recommendation -Added info on war spending as semiconductor spending -Added detail on future on shortages, market response to crisis -Streamlined down scenario Analysis Report is finished	Hans Ehm		Done		
2	Information	Next Steps: -Next weeks: Finish report on memory chips shortage -Next Months: Add interactions between regions, Add more products (shown in different nodes (shown, include capacity constraints, Model historic chances & risks, & add what is needed – etc.	Hans Ehm		Done		
3	Information	Status Digital Twin: -The Website with links to all clusters was shown with a new landing page including the General Approach -There is a special page dedicated to the team war -Website with the Digital Twins for all clusters is only IFA internal, therefore there are pdf versions of the Digital Twin in the Sharepoint of the Supply Chain Working Group -The team is working on making the "pretty" website available for all members on the IFA Sharepoint	Hans Ehm, Gertraude Baessens, Yannis Schloesser		Done		
4	Information	Anylogic Simulation: -Hans explained the conceptual model in Miro with all the made assumptions etc. -Anylogic Simulation was shown -Example of the simulation was shown for Japan Rise and Fall, Quaternary and South Korea and other events from the past that impacted the market share -Final Simulation of the market share as well as the Anylogic Simulation were shown	Hans Ehm		Done		
5	Information	Status of Stress Test: (Validation of Growth with Excel and Anylogic Model) -Historic growth of the market share was modeled via Excel and validated with Anylogic -Computed the yearly Production Values for each region by using the Compound Annual Growth Rate (CAGR) for the global production Status of Stress Test: (Validation of Market Capitalization and Blueprint for Formal Ontology) -From last meeting we got the feedback to model the emergence of ASML -when looking at the global market share, ASML's emergence did not affect it too much -Market capitalization and how it was impacted by the Iran war was shown (Iran issues in Korea and Europe, US not affected that much) -we propose to use both market share and market capitalization for validating the simulation -We are working on an Ontology for the Market capitalization of the Semiconductor industry	Sara Giavalini		Done		
6	Information	Next Steps: -Next weeks: Finish report on memory chips shortage -Next Months: Add interactions between regions, Add more products (shown in different nodes (shown, include capacity constraints, Model historic chances & risks, & add what is needed – etc.	Arthur Dossia		Done		
7	Information	Next Steps: -Next weeks: Finish report on memory chips shortage -Next Months: Add interactions between regions, Add more products (shown in different nodes (shown, include capacity constraints, Model historic chances & risks, & add what is needed – etc.	Hans Ehm		Done		
8	Information	It's brought up that the data study is interesting and should be presented to the stakeholders in the EU commission	Horst Schmeider		Done		
10	Summary/ Meeting Announcement	Next Scope meeting on April 24th and next Digital Twin meeting on May 8th	Hans Ehm		Done		

Meeting Minutes - 22th Meeting for Subgroup Digital Twin within WG Supply Chain for the Industrial Alliance 13.03.2026

Meeting	Date	Participants	Name of the speaker	Deadline	Status	Comments	Links
1	13.03.2026	Hans Ehm, Victoria Kike, Yannis Schloesser, Gertraude Baessens, Wilfried Yarmings, Christine O'Brien, Arthur Dossia, Sven Baumann (ZVEI), Horst Schmeider/Dynalco, Sara Giavalini, Dailly Padilla/Avanics, Yareck Welter, Achille/Imat/Imat, Thomas Lenz, Lutz/Infineon	Hans Ehm				
Item 1	Item Topic	Topic	A.J. Dossia, Christine Schmeider	Deadline (A.J.)	Status (A.J.)	Comments	Links
1	Information	General Overview of our approach: -The WG Survey is responsible for identifying market, policy and industry signals. -The content opens an Introduction/Context, detailed Risk and Opportunity assessment, Overview near to policy response/Policy recommendation -Added info on war spending as semiconductor spending -Added detail on future on shortages, market response to crisis -Streamlined down scenario Analysis Report is finished	Hans Ehm		Done		
2	Information	Next Steps: -Next weeks: Finish report on memory chips shortage -Next Months: Add interactions between regions, Add more products (shown in different nodes (shown, include capacity constraints, Model historic chances & risks, & add what is needed – etc.	Hans Ehm		Done		
3	Information	Status Digital Twin: -The Website with links to all clusters was shown -Website with the Digital Twins for all clusters is only IFA internal, therefore there are pdf versions of the Digital Twin in the Sharepoint of the Supply Chain Working Group -The team is working on making the "pretty" website available for all members on the IFA Sharepoint	Hans Ehm, Yannis Schloesser		Done		
4	Information	Anylogic Simulation: -Hans explained the conceptual model in Miro with all the made assumptions etc. -Anylogic Simulation was shown -Example of the simulation was shown for Japan Rise and Fall, Quaternary and South Korea and all other events from the past that impacted the market share	Hans Ehm		Done		
5	Information	Status of Stress Test: (Validation of Growth with Excel and Anylogic Model) -Historic growth of the market share was modeled via Excel and validated with Anylogic -Computed the yearly Production Values for each region by using the Compound Annual Growth Rate (CAGR) for the global production Status of Stress Test: (Validation of Market Capitalization and Blueprint for Formal Ontology) -From last meeting we got the feedback to model the emergence of ASML -when looking at the global market share, ASML's emergence did not affect it too much -Market capitalization and how it was impacted by the Iran war was shown (Iran issues in Korea and Europe, US not affected that much) -we propose to use both market share and market capitalization for validating the simulation -We are working on an Ontology for the Market capitalization of the Semiconductor industry	Sara Giavalini		Done		
6	Information	Next Steps: -Next weeks: Finish report on memory chips shortage -Next Months: Add interactions between regions, Add more products (shown in different nodes (shown, include capacity constraints, Model historic chances & risks, & add what is needed – etc.	Arthur Dossia, Christine O'Brien		Done		

7	Information	Next Steps: -Next week: Add Reports & KPIs like Gross Margin -Next Month: Add interactions between regions, Add more products (three in different nodes (three), include capacity constraints, Model historic chances & risks & add what is needed ... etc.	Hans Ehm	Done		
8	Discussion	One participant asked if we are missing complexity in our Digital Twin. Hans agreed but we are working on it. We have to start small otherwise it gets to complex. OIT is working on a Rhythim Simulation for us, because they have some capacity left from another funded project with Infineon.	Everyone	Done	For more detailed information please look at the comments in our shared sheet	MindLink
9	Summary/ Meeting Arrangement	Next Scope meeting on March 20th and next Digital Twin meeting on March 27th	Hans Ehm	Done		

Meeting Minutes - 21th Meeting for Subgroup Digital Twin within WG Supply Chain for the Industrial Alliance 27.02.2026

Meeting	Date	Participants	Name of the owner	Deadline	Status	Comments	Links
1	27.02.2026	Hans Ehm, Viktoria Kibbe, Yannick Schüssler, Gertlud Baurings, Wilfried Harnwegs, Taddéus Knecht, Dailin, Peter-Paul Jolly (AI Capital), Sven Baumann (ZVEI), Henrik Schmalz (QinetiQ), Yannick Meier, Alan Jarm, Sam	Hans Ehm				
Item #	Item Type	Topic	A/J Owner, Decider, Information Provider	Deadline (A/J)	Status (A/J)	Comments	Links
1	Information	Digital Twin Meetings are now combined with the WG Stress Test	Hans Ehm		Done		
2	Information	Rules (Regulation: only registered members of IA are allowed to join meetings, individuals need approval by the representative of their organization. One time guests with invitation or people in the process of registering are also allowed. We want an open and respectful discussion and therefore use the Chatham House rules. (Anyone who comes to a meeting is free to use information from the discussion, but is not allowed to reveal who made any particular comment) Anti-Trust Disclaimer	Hans Ehm		Done		
3	Information	General Overview of our approach: -WG Survey is responsible for identifying market, policy and industry signals. -The results of WG Survey are combined with an AI based information Retrieval build the input for the Chance and Risk Matrix of the WG Scope -WG Scope is responsible of creating and reviewing with experts in bi-weekly discussions the Chance and Risk Matrix -WG Digital Twin is responsible for up to date data flow for all clusters -The Chance & Risk Matrix as well as the information from the Digital Twin then function as an input for the Stress Test -WG Stress Test works with an AnyLogic Simulation to identify reaction options to grow chances and mitigate risks. The Scenarios are also helpful for the Chance & Risk Matrix as well as an input for the commission on how to harvest chances and mitigate risks	Hans Ehm		Done		
4	Information	Status Digital Twin: -The Website with links to all clusters was shown -Website with the Digital Twin for all clusters is only IFA internal, therefore there are pdf versions of the Digital Twin in the Sharedrive of the Supply Chain Working Group -the team is working on making the "pretty" website available for all members on the In-Site Sharedrive	Hans Ehm, Yannick Schüssler		Done		
5	Information	AnyLogic Simulation: -Hans explained the conceptual model in Micro with all the made assumptions etc. -AnyLogic Simulation was shown -Example of the simulation was shown for Japan Rise and Fall, Quasronda and South Korea and all other events from the past that requested the market share	Hans Ehm		Done		
6	Information	Influence of Risks and Chances on Europe's Market Share Right now Europe market share is at 7.2%, if we do not mitigate risks and harvest chances it could decline further. But with the Digital Twin we could anticipate and optimize our reactions to disruptions to increase the market share	Hans Ehm		Done		
7	Information	Next Steps: -Next week: Add Reports & KPIs like Gross Margin -Next Month: Add interactions between regions, Add more products (three in different nodes (three), include capacity constraints, Model historic chances & risks & add what is needed ... etc.	Hans Ehm		Done		
8	Discussion	Everyone was asked to give feedback and tell their most memorable event/idea for their Cluster, so that we can include it in the simulation: -Material: Big Crisis of hydrogen, silicon, helium, because of dependency from Ukraine -Material: In 2023, Japan, responsible for nearly 90% of the global supply of photoresist chemicals, restricted exports to South Korea due to escalating tensions between the two nations. This action affected \$7 billion per month in Korean exports and compelled South Korean semiconductor firms like Samsung and SK Hynix to swiftly seek alternative suppliers for chemical materials. -Equipment: Emergence of AIIMS and breakthrough in photolithography technologies (Deep UV, EUV etc.) -Falloff/Frontend/Backend: AMD and Intel agree to a definitive multi-year, multi-generation partnership to deploy up to 6 generations of AMD Instinct™ GPUs -Falloff/Frontend/Backend: Emergence of Foundry and Fabless Business Models and the Dominance of TSMC & NVDA -Falloff/Frontend/Backend: Henrik Schmalz, in 2018, a fire led to a brief 30-minute power outage at a Samsung plant in South Korea, necessitating the disposal of all wafers that were in production at the time. This incident alone resulted in an estimated \$4 million loss in production. -Customers: Henrik Schmalz: In 2023 when the U.S. banned American companies from supplying components to ZTE, which forced the company to halt operations and put its survival at risk. -In 2020 the U.S. imposed restrictions that forced TSMC, the leading global semiconductor manufacturer, to cease accepting new orders from Huawei, severely affecting Huawei's supply chain	Everyone		Done	For more detailed information please look at the comments in our shared sheet	MindLink
9	Summary/ Meeting Arrangement	Next Scope meeting on March 20th and next Digital Twin meeting on March 27th	Hans Ehm		Done		

Meeting Minutes - 20th Meeting for Subgroup Digital Twin within WG Supply Chain for the Industrial Alliance 13.02.2026

Meeting	Date	Participants	Name of the owner	Deadline	Status	Comments	Links
1	13.02.2026	Hans Ehm, Viktoria Kibbe, Yannick Schüssler, Gertlud Baurings, Wilfried Harnwegs, Taddéus Knecht, Dailin, 40dAlghar Ismail, Jürgen Stornelli, Florian Bahr (ZVEI), Peter-Paul Jolly (AI Capital), Gertlud Baurings (ZVEI), Jan van Duvenstede, Maximilian Bernow (ZVEI), Joshua Hübly (ZVEI), Sven Baumann (ZVEI), Jonas Gölz (ZVEI), Felix Baurings (ZVEI)	Hans Ehm				
Item #	Item Type	Topic	A/J Owner, Decider, Information Provider	Deadline (A/J)	Status (A/J)	Comments	Links
1	Information	Digital Twin Meetings are now combined with the WG Stress Test	Hans Ehm		Done		
2	Information	Rules (Regulation: only registered members of IA are allowed to join meetings, individuals need approval by the representative of their organization. One time guests with invitation or people in the process of registering are also allowed. We want an open and respectful discussion and therefore use the Chatham House rules. (Anyone who comes to a meeting is free to use information from the discussion, but is not allowed to reveal who made any particular comment) Anti-Trust Disclaimer	Hans Ehm		Done		
3	Information	General Overview of our approach: -WG Survey is responsible for identifying market, policy and industry signals. -The results of WG Survey are combined with an AI based information Retrieval build the input for the Chance and Risk Matrix of the WG Scope -WG Scope is responsible of creating and reviewing with experts in bi-weekly discussions the Chance and Risk Matrix -WG Digital Twin is responsible for up to date data flow for all clusters -The Chance & Risk Matrix as well as the information from the Digital Twin then function as an input for the Stress Test -WG Stress Test works with an AnyLogic Simulation to identify reaction options to grow chances and mitigate risks. The Scenarios are also helpful for the Chance & Risk Matrix as well as an input for the commission on how to harvest chances and mitigate risks	Hans Ehm		Done		
4	Information	Status Digital Twin: -The Website with links to all clusters was shown -Website with the Digital Twin for all clusters is only IFA internal, therefore there are pdf versions of the Digital Twin in the Sharedrive of the Supply Chain Working Group -Sharedrive with folders for each cluster were shown -the team is working on making the "pretty" website available for all members -we created a New Gas Technology (for more information see the slides)	Hans Ehm, Yannick Schüssler		Done		
5	Information	AnyLogic Simulation: -Hans explained the conceptual model in Micro with all the made assumptions etc. -AnyLogic Simulation was shown -Example of the simulation was shown for Japan Rise and Fall	Hans Ehm		Done		
6	Information	Influence of Risks and Chances on Europe's Market Share Right now Europe market share is at 7.2%, if we do not mitigate risks and harvest chances it could decline further. But with the Digital Twin we could anticipate and optimize our reactions to disruptions to increase the market share	Hans Ehm		Done		
7	Information	Next Steps: -Next week: Add Reports & KPIs like Gross Margin -Next Month: Add interactions between regions, Add more products (three in different nodes (three), include capacity constraints, Model historic chances & risks & add what is needed ... etc.	Hans Ehm		Done		
8	Discussion	Members mentioned that their was a paper published by OECD on the market share and how it is divided into domestic and foreign capacity. In the future it could be interesting to look at where is the market, where the headquarter and where the fab. Market Share Data is from Technights and only rough figures right now. In the future it might be a good idea to look at more specific batches.	Everyone		Done	MindLink	
9	Summary/ Meeting Arrangement	Next Scope meeting on February 30th and next Digital Twin meeting on March 13th	Hans Ehm		Done		

Meeting Minutes - 19th Meeting for Subgroup Digital Twin within WG Supply Chain for the Industrial Alliance 30.01.2026

Meeting	Date	Participants	Name of the owner	Deadline	Status	Comments	Links
1	30.01.2026	Hans Ehm, Viktoria Kibbe, Yannick Schüssler, Gertlud Baurings, Wilfried Harnwegs, Taddéus Knecht, Dailin, 40dAlghar Ismail, Jürgen Stornelli, Florian Bahr (ZVEI), Alan Jarm, Peter-Paul Jolly (AI Capital), Yannick Meier	Hans Ehm				
Item #	Item Type	Topic	A/J Owner, Decider, Information Provider	Deadline (A/J)	Status (A/J)	Comments	Links
1	Information	Digital Twin Meetings are now combined with the WG Stress Test	Hans Ehm		Done		

2	Information	Rules/Regulation: only registered members of IA are allowed to join meetings, individuals need approval by the representative of their organization. One time guests with invitation or people in the process of registering are also allowed. We want an open and respectful discussion and therefore use the Chatham House rules. (Anyone who comes to a meeting is free to use information from the discussion, but is not allowed to reveal who made any particular comment) Anti-Trust Disclaimer	Hans Ehm	Done		
3	Information	General Overview of our approach: WIS Survey is responsible for identifying market, policy and industry signals. The results of WIS Survey are combined with an AI based information Network build the input for the Chance and Risk Matrix of the WIS Scope. WIS Scope is responsible of creating and reviewing with experts in bi-weekly discussions the Chance and Risk Matrix. WIS Digital Twin is responsible for up to date data flow for all clusters. The chances & risks as well as the information from the Digital Twins then function as an input for the Stress Test. WIS Stress Test works with an Anylogic Simulation to identify reaction options to grow chances and mitigate risks. The Scenarios can also be helpful for the Chance & Risk Matrix as well as an output for the foundation on how to harvest chances and mitigate risks.	Hans Ehm	Done		Click Link
4	Information	Status Digital Twin: The Website with links to all clusters was shown. Website with the Digital Twins for all clusters is only IFA internal, therefore there are pdf versions of the Digital Twin in the Sharepoint of the Supply Chain Working Group. Sharepoint with folders for each cluster were shown. The team is working on making the "pretty" website available for all clusters.	Wilfried Yamengo, Gertrude Baenzig	Done		
5	Information	Conceptual Model in Miro: Hans explained the conceptual model in Miro with all the made assumptions etc. For more details, see the slides.	Hans Ehm	Done		
6	Information	Anylogic Simulation was shown and explained by Fadiou.	Fadiou Koumba Diallo	Done		
7	Information	Next Steps: Next weeks: Confirm total production of 1.000.000.000 Chips in 2025, Build up all regions (EU, Taiwan, United States, South Korea, China, Japan), Add Reports & Why like Stress Manager. Next Months: Add interactions between regions, Add more products (three in different nodes (three), include capacity constraints, Model historic chances & risks. & add what is needed ... etc.	Hans Ehm	Done		
8	Discussion	Everyone agreed that the presented approach is a good start. A member was approached by "Nepheromicro". They want to host a supply chain resilience workshop July/August. Maybe we could present our approach there and get good feedback. They were aware of how to access the Alliance Sharepoint with pdf versions of our Digital Twins. Therefore we will include the link in the <u>cluster introduction</u>.	Everyone	Done		https://collaboration.alliance.eu/index.php/apps/dashboard/
9	Summary/ Meeting Announcement	Next Scope meeting on February 6th and next Digital Twin meeting on February 13th.	Hans Ehm	Done		

Meeting Minutes - 18th Meeting for Subgroup Digital Twin within WG Supply Chain for the Industrial Alliance 16.01.2026

Member	Date	Participants	Name of the speaker	Decision	Done	Comments	Links
1	16.01.2026	Hans Ehm, Wilfried Kibbe, Yannis Schlemmer, Gertrude Baenzig, Wilfried Yamengo, Fadiou Koumba Diallo, Rüdiger Jendel, Jürgen Zimmerli, Florian Bahrer/SCHL, Alan Jans, Henrik Schlemmer/Quart, Pierre Yves Jaffrey/Inteliquat, Kai Scheffhoff/MP, Johannes/ASEMI, Anna Lorensmann	Hans Ehm				
Item 1	Item Type		A/J Decides: Decides, Information	Deadline (A/J)	Done (A/J)	Comments	Links
1	Information	Digital Twin Meetings are now combined with the WIS Stress Test	Hans Ehm	Done			
2	Information	Rules/Regulation: only registered members of IA are allowed to join meetings, individuals need approval by the representative of their organization. One time guests with invitation or people in the process of registering are also allowed. We want an open and respectful discussion and therefore use the Chatham House rules. (Anyone who comes to a meeting is free to use information from the discussion, but is not allowed to reveal who made any particular comment) Anti-Trust Disclaimer	Hans Ehm	Done			
3	Information	General Overview of our approach: WIS Survey is responsible for identifying market, policy and industry signals. The results of WIS Survey are combined with an AI based information Network build the input for the Chance and Risk Matrix of the WIS Scope. WIS Scope is responsible of creating and reviewing with experts in bi-weekly discussions the Chance and Risk Matrix. WIS Digital Twin is responsible for up to date data flow for all clusters. The chances & risks as well as the information from the Digital Twins then function as an input for the Stress Test. WIS Stress Test works with an Anylogic Simulation to identify reaction options to grow chances and mitigate risks. The Scenarios can also be helpful for the Chance & Risk Matrix as well as an output for the foundation on how to harvest chances and mitigate risks.	Hans Ehm	Done		Click Link	
4	Information	Status Digital Twin: The Website with links to all clusters was shown. Website with the Digital Twins for all clusters is only IFA internal, therefore there are pdf versions of the Digital Twin in the Sharepoint of the Supply Chain Working Group. Sharepoint with folders for each cluster were shown. The team is working on making the "pretty" website available for all clusters.	Wilfried Yamengo, Gertrude Baenzig	Done			
5	Information	Conceptual Model in Miro: Hans explained the conceptual model in Miro with all the made assumptions etc. For more details, see the slides.	Hans Ehm	Done			
6	Information	Anylogic Simulation was shown and explained by Fadiou.	Fadiou Koumba Diallo	Done			
7	Information	Next Steps: Next weeks: Confirm total production of 1.000.000.000 Chips in 2025, Build up all regions (EU, Taiwan, United States, South Korea, China, Japan), Add Reports & Why like Stress Manager. Next Months: Add interactions between regions, Add more products (three in different nodes (three), include capacity constraints, Model historic chances & risks. & add what is needed ... etc.	Hans Ehm	Done			
8	Discussion	Everyone agreed that the presented approach is a good start. It is not overcomplicated yet and offers a good starting point especially with modeling past disruptions we can learn from the past. Members mentioned that it could be difficult to model all the parameters in regard to the uncertainty in the world and all the big event coming frequently. Regarding the data it was agreed on that for the next few months we would work with average values that are publicly accessible. Later we can move into detail with the data. Hans brought up the idea that we could do some shared work between Infineon and Companies, for example for Material user (Infineon as employee from the representing company (e.g. a student) could support with the Material/Products models).	Everyone	Done			
9	Summary/ Meeting Announcement	Next Scope meeting on January 23rd and next Digital Twin meeting on January 30th.	Hans Ehm	Done			

Meeting Minutes - 17th Meeting for Subgroup Digital Twin within WG Supply Chain for the Industrial Alliance 05.19.2025

Member	Date	Participants	Name of the speaker	Decision	Done	Comments	Links
1	19.12.2025	Blaise Jeng/NXP, Lorenza Castrogiovanni (Inteliquat), Kai Scheffhoff/MP, Hans Ehm/IFA, Lisa Salzer/IFA, Quentin Baizakis/Dynast, Gertrude Baenzig, Wilfried Yamengo, Jermal Abdelaziz	Hans Ehm				
Item 1	Item Type		A/J Decides: Decides, Information	Deadline (A/J)	Done (A/J)	Comments	Links
1	Information	Purpose of meeting and reminder of collaboration within Industrial Alliance Supply Chain WIS Subgroup Digital Twin.	Hans Ehm	Done		Meeting objective known to all participants, no rewording of scope (needed).	
2	Information	Compliance rules: cooperation with competitors, participation rules, and availability of compliance and antibody regulations.	Hans Ehm	Done		Compliance rules apply due to cooperation with competitors.	
3	Information	Digital Twin approach and structure based on SEM, SEER, and internal assumptions (incl. phenomena products).	Hans Ehm	Done		Structural framework introduced for Digital Twin development.	
4	Information	Risk & Chance identification methodology: heterogeneous impact scale (up to 4.1.000.000) categorization gap, and bubble chart visualization.	Hans Ehm	Done		Risks and chances generated AI based per company, followed by consensus categorization across 12 supply chain levels.	
5	Information	Aggregation of risks and chances: red-green bubble include candidates for Digital Twin.	Hans Ehm	Done		Aggregated view used to identify Digital Twin candidates.	
6	Information	Digital Twin candidates and clustering strategy: one Digital Twin per cluster.	Hans Ehm	Done		Nephera mentioned as example, CAR (Schiffmann/Schubert) presented as one as candidate from 20 clusters.	
7	Information	Concept of Digital Twin snapshots vs. full Digital Twin and path toward implementation.	Hans Ehm	Done		Multiple snapshots form a Digital Twin prototype; basis for later implementation and stress tests.	
8	Information	Transition from Digital Twin prototype to discrete event and system dynamics simulation: shows both (discrete event, model-based).	Hans Ehm	Done		Simulation results to support mitigation options and fast execution scenarios.	
9	Information	Status update: Material Cluster Digital Twin (PDF & web version completed and presented to all partners).	Gertrude Baenzig, Wilfried Yamengo, Jermal Abdelaziz	Done		Homepage preview shown; includes usage and Available-to-Promise (ATP).	
10	Information	Status update: Nephera Digital Twin (PDF available, web page under development).	Gertrude Baenzig, Wilfried Yamengo, Jermal Abdelaziz	Done		Goal to consolidate all cluster pages into one unified homepage.	
11	Information	Index update: Memory storage Digital Twin (PDF completed, web page to be built).	Gertrude Baenzig, Wilfried Yamengo, Jermal Abdelaziz	Done		Content includes manufacturing process, market overview, and digital change adaptation.	
12	Discussion	Discussion on medicine usage across semiconductor manufacturing steps and risk of European supply disruption.	Lorenza Castrogiovanni	Done		Emphasis on dependency risk: shortage of memory could halt European semiconductor manufacturing.	
13	Information	Illustration of conceptual supply chain simulation model (product, information, and money flows).	Gertrude Baenzig, Wilfried Yamengo, Jermal Abdelaziz	Done		Model covers upstream to downstream, incl. front-end, die bank, back-end, & distribution center.	
14	Discussion	Comments on model elements (die bank, distribution center, electrical test, wafer).	Gertrude Baenzig, Wilfried Yamengo, Jermal Abdelaziz	Done		Electrical testing included in back end; model microcentrally completed at this stage.	
15	Discussion	Feedback on regional differentiation (Europe vs. non-Europe manufacturing and assembly).	Lorenza Castrogiovanni	Done		Agreed as next step: initial model starts with simplified regional differentiation.	
16	Discussion	Feedback on customer modeling and technology nodes.	Kai Scheffhoff	Done		Technology nodes not yet differentiated; potential future extension.	
17	Information	Demonstration of simulation logic (5-year runs, regional output, historical information from 1980s onward).	Gertrude Baenzig, Wilfried Yamengo, Jermal Abdelaziz	Done		Enables analysis of disruptions and mitigation scenarios (e.g. relocation from 1980s onward).	
18	Summary / Next Steps	Feedback requested on Miro board or email; continued development of simulation model.	Hans Ehm	Done		Link and password to be shared with meeting minutes; Password: ConceptualModel	https://collab.alliance.eu/
19	Summary / Meeting Announcement	Next Scope Meeting: 05 January 2026; Next Digital Twin Meeting: 18 January 2026.	Hans Ehm	Done			
20	Information	Update on Silicon Bridge (European project): feedback expected by 05 March 2026.	Hans Ehm	Done			
21	Close	Agreement to contribute: holiday exception.	Hans Ehm	Done			

Meeting Minutes - 16th Meeting for Subgroup Digital Twin within WG Supply Chain for the Industrial Alliance 05.12.2025

Member	Date	Participants	Name of the speaker	Decision	Done	Comments	Links
1	05.12.2025	Blaise Jeng/NXP, Lorenza Castrogiovanni (Inteliquat), Yannis Meier (Infineon), Hans Ehm/IFA, Wilfried Kibbe/IFA, Henrik Schlemmer/Quart	Hans Ehm				
Item 1	Item Type		A/J Decides: Decides, Information	Deadline (A/J)	Done (A/J)	Comments	Links
1	Information	Rules/Regulation: only registered members of IA are allowed to join meetings, individuals need approval by the representative of their organization. One time guests with invitation or people in the process of registering are also allowed. We want an open and respectful discussion and therefore use the Chatham House rules. (Anyone who comes to a meeting is free to use information from the discussion, but is not allowed to reveal who made any particular comment) Anti-Trust Disclaimer	Hans Ehm	Done			

2	Information	Update on OncoStream and its improved user interface: classes for the semiconductor sustainability like were added	Hans Elton		Done		Click to open
3	Information	Digital Twin Approach: Risk and Chance positioning using our Risk/Chance Matrix Supply Chain clustering according to SDRs, SA and our own assessment Example for risks and chances (Hybrid AI-based) Digital twin definition, target and approach Nepeser Digital Twin Approach for a Digital Twin for a rare gas: Oncofluorocyclotriene (C4F6)	Hans Elton		Done	Digital Twin for a rare gas: Oncofluorocyclotriene (C4F6) collects/summarizes the most important information, usage and suppliers. In the future we would then do stress tests.	
4	Next Steps/Discussion	Discussion about possible next purpose driven Digital Twin for all identified clusters. desired outcome stress test: use the impact of certain events and risk assessment	Everyone		Done	Possible ideas for the Equipment Cluster: APTech values closing Napa Valley plant in California, GPU, DRAM&NAND, ASICs (7nm nodes).	
5	Summary/ Meeting Announcement	Next Scope meeting on December 12th and next Digital Twin meeting on December 20th	Hans Elton		Done		

What next purpose Digital Twin do we need?
e.g. one per Cluster in current mode, before we review the systematic

Cluster	Resources	Equipment	OT Data	Values	Structure	OncoStream	Process	Data Data	Components	Simulation	AI/ML	Others
Equipment	Oncofluorocyclotriene (C4F6)				Equipment 1.0	Equipment 1.0						
Next need	AI/ML	AI/ML	AI/ML	AI/ML	AI/ML	AI/ML	AI/ML	AI/ML	AI/ML	AI/ML	AI/ML	AI/ML

Meeting Minutes - 15th Meeting for Subgroup Digital Twin within WG Supply Chain for the Industrial Alliance 21.11.2025							
Meeting	Date	Participants	Name of the owner	Deadline	Status	Comments	Links
1	21.11.2025	Hans Elton, Ben Seifert, On-Schindler (NXP), Leonard Castiglioni (ARM), Marc Lohr, Yannick Meister (IFP), Yvonne Kibbe	Yvonne Kibbe on behalf of Hans Elton				
Item #	Item Type	Topics	A/J Owner, Decider, Info-provider	Deadline (A/J)	Status (A/J)	Comments	Links
1	Information	Rules/Regulation: only registered members of IA are allowed to join meetings, individuals need approval by the representative of their organization. One time guests with invitation or people in the process of registering are also allowed. We want an open and respectful discussion and therefore use the Chatham House rules. (Anyone who comes to a meeting is free to use information from the discussion, but is not allowed to reveal who made any particular comment) Anti-Trust Disclaimer	Yvonne Kibbe		Done		
2	Information	Update on OncoStream and its improved user interface: classes for the semiconductor sustainability like were added	Yvonne Kibbe		Done		Click to open
3	Information	Introduction to the work of the Digital Twin working group: Risk and Chance positioning using our Risk/Chance Matrix Supply Chain clustering according to SDRs, SA and our own assessment Example for risks and chances (Hybrid AI-based) Digital twin definition, target and approach Nepeser Digital Twin Approach for a Digital Twin for a rare gas	Yvonne Kibbe		Done	Question from one participant whether we have started with the simulation of the rare gas yet. Answer is not yet first we have to get an overview of what is the gas, what it is used for etc. Therefore, we created the website.	
4	Information	Recap of the E2F Meeting in Brussels: Photos, Key discussions and posters were shared	Yvonne Kibbe		Done	Poster will be uploaded in the Sharedrive of the WG Supply Chain	
5	Summary/ Meeting Announcement	Next Scope meeting on November 28th and next Digital Twin meeting on December 5th	Yvonne Kibbe		Done		

Meeting Minutes - 13th Meeting for Subgroup Digital Twin within WG Supply Chain for the Industrial Alliance 24.10.2025							
Meeting	Date	Participants	Name of the owner	Deadline	Status	Comments	Links
1	24.10.2025	Hans Elton, Ben Seifert, Jorgelijn Sluiter, Yannick Meister, Yvonne Kibbe	Henrik Schmalau on behalf of Hans Elton				
Item #	Item Type	Topics	A/J Owner, Decider, Info-provider	Deadline (A/J)	Status (A/J)	Comments	Links
1	Information	Rules/Regulation: only registered members of IA are allowed to join meetings, individuals need approval by the representative of their organization. One time guests with invitation or people in the process of registering are also allowed. We want an open and respectful discussion and therefore use the Chatham House rules. (Anyone who comes to a meeting is free to use information from the discussion, but is not allowed to reveal who made any particular comment) Anti-Trust Disclaimer	Henrik Schmalau		Done		
2	Information	Introduction to the work of the Digital Twin working group: Risk and Chance positioning using our Risk/Chance Matrix Supply Chain clustering according to SDRs, SA and our own assessment Example for risks and chances (Hybrid AI-based)	Henrik Schmalau		Done	For risk and chance assessment, see page 10 on the attached ppt slide deck	
3	Information	Update on OncoStream and its improved user interface: classes for the semiconductor sustainability like were added. Summary of the top 4 identified risks and top 3 opportunities. Reviewed the definition of the Digital Twin (see slides, p.11). Key requirements were presented (slide p.12). Discussion on how the Digital Twin can be used to identify potential risks and opportunities (Oncofluorocyclotriene case study, slide 14). CEO suspended: Dutch management temporarily in place. Export restrictions from China and U.S. trade regulations highlighted as context.	Henrik Schmalau		Done		Click to open
4	Information	Discussion Points: Emphasis on Digital Twin as a general tool to optimize the supply chain and manage risks and opportunities. Noted that such events (e.g., Nepeser case) are often unforeseen and highlight the need for adaptive models. Stressed the importance of analyzing cause and consequences (Nepeser case serves as a learning opportunity. Pointed out that although there was initial uncertainty, the situation now appears to have stabilized. Suggestions that the Digital Twin should help assess how disruptions impact the supply chain and identify measures to mitigate risk.	All		Done	For more information on Nepeser case see attached slide page 14	
5	Summary/ Meeting Announcement	Next Scope meeting on October 31st and next Digital Twin meeting on November 7th Next Physical Workshop on November 13th in Brussels	Henrik Schmalau		Done		

Meeting Minutes - 11th Meeting for Subgroup Digital Twin within WG Supply Chain for the Industrial Alliance 12.09.2025							
Meeting	Date	Participants	Name of the owner	Deadline	Status	Comments	Links
1	12.09.2025	Hans Elton, Mathieu Duchâtel, Francis Balestra, Yannick Meister, Yannick Schmalau, Jan van Doornik, Florian Seifert, Yvonne Kibbe, Eric Seifert	Hans Elton				
Item #	Item Type	Topics	A/J Owner, Decider, Info-provider	Deadline (A/J)	Status (A/J)	Comments	Links
1	Information	Rules/Regulation: only registered members of IA are allowed to join meetings, individuals need approval by the representative of their organization. One time guests with invitation or people in the process of registering are also allowed. We want an open and respectful discussion and therefore use the Chatham House rules. (Anyone who comes to a meeting is free to use information from the discussion, but is not allowed to reveal who made any particular comment) Anti-Trust Disclaimer	Hans Elton		Done		
2	Information	Introduction to the work of the Digital Twin working group: Risk and Chance positioning using our Risk/Chance Matrix Supply Chain clustering according to SDRs, SA and our own assessment Example for risks and chances (Hybrid AI-based) Digital twin definition, target and approach	Hans Elton		Done		
3	Information	Update on OncoStream and its improved user interface: classes for the semiconductor sustainability like were added Special Guests from EU-funded projects	Hans Elton		Done		Click to open
3	Information	Mathieu Duchâtel from Institut Montaigne: Chips Diplomacy Support Initiative - EU action grant in the field of pilot projects and preparatory actions. Francis Balestra from Grenoble HEP: International Cooperation On Semiconductors	Hans Elton		Done	For more information please check the slides from both our guests attached to the email.	
9	Summary/ Meeting Announcement	Announcement splitting of the usual Friday DT meetings into two separate meetings, one focusing on DT first one on September 20th and the other one on Risk/Chance Matrix (meet one on September 18th) Next Physical Workshop on November 13th in Brussels	Hans Elton		Done		

Meeting Minutes - 10th Meeting for Subgroup Digital Twin within WG Supply Chain for the Industrial Alliance 29.08.2025							
Meeting	Date	Participants	Name of the owner	Deadline	Status	Comments	Links
1	29.08.2025	Hans Elton, Ben Seifert, Yannick Meister, Shiva Casati, Alan Jarm, Bibo de Jong, Jan van Doornik, Philippe Vulliamis, Elisabeth Stenmetz, Florian Seifert, Yvonne Kibbe	Hans Elton				
Item #	Item Type	Topics	A/J Owner, Decider, Info-provider	Deadline (A/J)	Status (A/J)	Comments	Links
1	Information	Rules/Regulation: only registered members of IA are allowed to join meetings, individuals need approval by the representative of their organization. One time guests with invitation or people in the process of registering are also allowed. We want an open and respectful discussion and therefore use the Chatham House rules. (Anyone who comes to a meeting is free to use information from the discussion, but is not allowed to reveal who made any particular comment) Anti-Trust Disclaimer	Hans Elton		Done		

2	Information	Update on Onsilium and its improved User Interface: classes for the semiconductor production line were added	Hans Elten		Done		Onsilium
3	Information	Digital Twin Target: Use always latest status of Risk&Chance Matrix for Digital twin target (support mitigating Risk & harvest Chances) Check if current Digital Reference covers classes (naming convention) needed for Risk & Chance Matrix Derive supply chain relevant Digital twin from above with focus on supply – A1P (Availability to Promise) Digital twin from above with focus on supply – A1P (Availability to Promise)	Hans Elten		Done	Please check the examples for your company and share feedback with us.	
4	Information	In this working group we use the Digital Twin Definition by Andrew Mattei. Mattei defines the requirement-driven digital twin as a virtual construct that represents a physical counterpart with focus on the requirements	Hans Elten		Done	Follow WSC MAMA definitions e.g. Andrew Mattei „Optimizing Digital Twin Synchronization in a Brite horizon, WSC 2022“	https://www.wscmama.org/2022/07/11/optimizing-digital-twin-synchronization-in-a-brite-horizon/
5	Information	Digital Twin Architecture: Andrew Mattei proposes requirements for Digital Twins (synchronization, learning, bi-directional information flow, monitoring capabilities, prediction/description capabilities, optimization). According to these requirements he proposes an architecture consisting for example of: Scenario Manager, Decision Module, Simulation Module, Control Module, Automation Module	Viktoria Kilde		Done	for more information see video	https://www.wscmama.org/2022/07/11/optimizing-digital-twin-synchronization-in-a-brite-horizon/
6	Information	The Sales Manager was denied to collect Sales and Products along the supply chain	Hans Elten, Viktoria Kilde		Done	Comment from a participant: “We should decide what data we need from the companies can check if they could provide data”	
8	Brainstorming / feedback	Manual on feedback to the risk/chance matrix and brainstorming for ideas on next steps for the Digital Twin subgroup	everyone		Done	Comment from a participant: “We should decide who will be the user of our Digital Twin”	Manual
9	Summary/ Meeting Announcement	Announcement splitting of the usual Friday DT meetings into two separate meetings, one focusing on just DT (next one on September 23th) and the other one on Risk/Chance Matrix (next one on September 5th) Next Physical Workshop on November 13th in Brussels	Hans Elten		Done		

 Meeting Minutes - 9th Meeting for Subgroup Digital Twin within WG Supply Chain for the Industrial Alliance 01.08.2025							
Meeting	Date	Participants	Name of the owner	Deadline	Status	Comments	Links
1	18.07.2025	Hans Elten, Ben Sallert, Yannick Meisner, Bruno Tietzen, Yannick Schüssler, Carlos Pardo, Storm Juergen, Enis Subic	Hans Elten				
Item #	Item Type	Topic	A/E Owner, Decider, Info-provider	Deadline (A/E)	Status (A/E)	Comments	Links
1	Information	Rules/Regulation: only registered members of IA are allowed to join meetings, individuals need approval by the representative of their organization. One time guests with invitation or people in the process of registering are also allowed.	Hans Elten		Done		
2	Information	Update on Onsilium and its improved User Interface: classes for the semiconductor production line were added	Ben Sallert		Done		Onsilium
3	Information	Risk & Chance Management Matrix by Hans with examples for all companies in the semiconductor supply chain: Material, Equipment, OHS/Spa/Out, Design & EDA, CRM & CDM, R&D/Academia, Others/Associations	Hans Elten		Done	Please check the examples for your company and share feedback with us.	
4	Information	Risk & Chance Management Matrix by Carlos Pardo with examples for Photonics	Carlos Pardo		Done		
5	Information	Target for our DT: Use always latest status of Risk&Chance Matrix for Digital twin target (support mitigating Risk & harvest Chances) Check if current Digital Reference covers classes (naming convention) needed for Risk & Chance Matrix Derive supply chain relevant Digital twin from above with focus on supply – A1P (Availability to Promise) problem mitigation, increase for customer growth chances How to support above: In the last IA supply chain General Assembly meeting it was agreed to extend the Scope meetings with the Risk/Chance Matrix and have biweekly meetings (alternating to Digital Twin (DT)) – invite follows Align with NIST on a possible collaborative approach: EU vs focus on a supply DT – US on factories DT Make it supply chain DT & Scope sustainable via applying and winning a CSA – see next slides For the next DT meeting share your DT approach and we will show the consolidated approach Offer to get an AI-based Chance/Risk Matrix on Monday of the week before the Scope Meeting	Hans Elten		Done		
6	Information	Presented a compiled Risk/Chance Matrix document for number of companies so to show LLM-based approach in generating and analyzing potential concerns-related risks and chances. Application for MICRO2N-GIA 2023-03-03-MHMAN-20: Funding opportunity that Hans Elten wants to apply for. This is not a project proposal to implement but to organize possible bigger activities for later and keep us running. One such activity is possibility to participate in quarterly face-to-face meetings to align on Chance/Risk Matrix in Chatham House Rule and anti-trust compliant setting	Yannick Schüssler		Done	Please reach out to Yannick Schüssler for further information	
7	Information		Hans Elten		Done	Please check the slides for more information	
8	Brainstorming / feedback	Manual on feedback to the risk/chance matrix and brainstorming for ideas on next steps for the Digital Twin subgroup	Hans Elten, Carlos Pardo, Storm Juergen		Done		Manual
9	Summary/ Meeting Announcement	Announcement splitting of the usual Friday DT meetings into two separate meetings, one focusing on just DT and the other one on Risk/Chance Matrix	Hans Elten		Done		

 Meeting Minutes - 8th Meeting for Subgroup Digital Twin within WG Supply Chain for the Industrial Alliance							
Meeting	Date	Participants	Name of the owner	Deadline	Status	Comments	Links
1	18.07.2025	Hans Elten, Viktoria Kilde, Ben Sallert, Boris de Jong, Yannick Meisner, Bruno Tietzen, Yannick Schüssler, Carlos Pardo, Casade Viegas, Silvia Cavall, Enis Subic	Hans Elten				
Item #	Item Type	Topic	A/E Owner, Decider, Info-provider	Deadline (A/E)	Status (A/E)	Comments	Links
1	Information	Rules/Regulation: only registered members of IA are allowed to join meetings, individuals need approval by the representative of their organization. One time guests with invitation or people in the process of registering are also allowed. We want an open and respectful discussion and therefore use the Chatham House rules. (anyone who comes to a meeting is free to use information from the discussion, but is not allowed to reveal who made any particular contributions)	Hans Elten		Done		
2	Information	Update on Onsilium and its improved User Interface: words for the semiconductor line were added	Ben Sallert		Done		Onsilium
3	Information	Risk & Chance Management Matrix by Hans with examples for all companies in the semiconductor supply chain: Material, Equipment, OHS/Spa/Out, Design & EDA, CRM & CDM, R&D/Academia, Others/Associations	Hans Elten		Done	Please check the examples for your company and share feedback with us.	
4	Information	Target for our DT: Use always latest status of Risk&Chance Matrix for Digital twin target (support mitigating Risk & harvest Chances) Check if current Digital Reference covers classes (naming convention) needed for Risk & Chance Matrix Derive supply chain relevant Digital twin from above with focus on supply – A1P (Availability to Promise) problem mitigation, increase for customer growth chances How to support above: Propose in next IA supply chain General Assembly meeting to start with extended Scope meeting and bringing Risk/Chance Matrix to scope (already partially agreed in last General Assembly) and have biweekly meeting (alternating to Digital Twin) Align with NIST on a possible collaborative approach: EU vs supply DT – US on factories DT Make it supply chain DT & Scope sustainable via applying and winning CSA – see next slides Application for MICRO2N-GIA 2023-03-03-MHMAN-20: Funding opportunity that Hans Elten wants to apply for. This is not a project proposal to implement but to organize possible bigger activities for later and keep us running	Hans Elten		Done		
5	Information		Hans Elten		Done	Please check the slides for more information	

6	Brainstorming / Feedback	Mutual on feedback to the risk/chance matrix and brainstorming for ideas on next steps for the Digital Twin subgroup.	Hans Elten, Bruno Tisonen, Bili de Jong, Claude Yagena, Carlos Pardo		Done	Bruno could not give immediate feedback about the risk/chance matrix but will prepare something for the next meeting Carlos mentioned that we have quite low participation in our meeting. We need more representatives of industry firms. What can we improve? -> start with more technical work	Mutual
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 Meeting Minutes - 7th Meeting for Subgroup Digital Twin within WG Supply Chain for the Industrial Alliance 04.07.2025							
Meeting	Date	Participants	Name of the owner	Deadline	Status	Comments	Links
1	04.07.2025	Hans Elten, Viktoria Kibbe, Dominik Blosch, Ben Seifert, Bili de Jong, Nicolas Jaymond, Harald Gosser, Yarnick Meisler, Philippe Vialletta, Bruno Tisonen, Lorenzo Castiglioni, Yarnick Schmitz	Hans Elten				
Item #	Item Type	Topic	A/R Owner: Decider: Information	Deadline (A/R)	Status (A/R)	Comments	Links
1	Information	Rules/Regulation: only registered members of IA are allowed to join meetings, individuals need approval by the representative of their organization. One time guests with invitation or people in the process of registration are also allowed.	Hans Elten		Done		
2	Information	Update on OnDemand and its improved User Interface	Ben Seifert		Done		OnDemand
3	Information	Risk & Chance Management Matrix by Hans with examples from Infineon and from SEMI, Presentation of an Online Version (draft) for adding risks/chances. Use case AI to generate risks and chances for companies with cross crawling, key documents and previous chances/risks always until Friday EOD, where we have an OT meeting. Share the AI proposal with the company OT representative so they can adjust and/or approve the risks and chance Matrix during the OT meeting week. Prepare the results in the Digital Twin meeting on Friday	Hans Elten		Done	We will prepare a risk/chance proposal for Siemens, ST and Analog for next meeting	
4	Information	Feedback from the OT Semiconductor Point of Contact Meeting including an executive summary from Hans as well as the new published statements from the OT	Hans Elten		Done	Please look at the slides for a more detailed summary.	
5	Brainstorming / Feedback	Mutual on feedback to the risk/chance matrix and brainstorming for ideas on next steps for the Digital Twin subgroup.	Hans Elten, Harald Gosser, Lorenzo Castiglioni, Nicolas Jaymond, Bruno Tisonen		Done	Nicolas: he thinks the meetings are informative but might lack deep dives and development work. So far the work has only been general. (oppose Hans after we decided on scope and goals, we should start with data and architecture) Harald: Harald sees a chance in starting with a DT economy for the digital industry Hans: great progress, I wish to run a trial for my Company	Mutual

 Meeting Minutes - 6th Meeting for Subgroup Digital Twin within WG Supply Chain for the Industrial Alliance 20.06.2025							
Meeting	Date	Participants	Name of the owner	Deadline	Status	Comments	Links
1	20.06.2025	Hans Elten, Viktoria Kibbe, Dominik Blosch, Henrik Schmitz, Ben Seifert, Hans Buchwald, Bili de Jong, Nicolas Jaymond, Harald Gosser	Hans Elten				
Item #	Item Type	Topic	A/R Owner: Decider: Information	Deadline (A/R)	Status (A/R)	Comments	Links
1	Information	Rules/Regulation: only registered members of IA are allowed to join meetings, individuals need approval by the representative of their organization. One time guests with invitation or people in the process of registration are also allowed.	Hans Elten		Done		
2	Information	Update on OnDemand and its improved User Interface	Ben Seifert		Done		OnDemand
3	Information	Risk & Chance Management Matrix by Hans with examples from Infineon, Presentation of an Online Version (draft) for adding risks/chances	Hans Elten, Viktoria Kibbe		Done	Please take the time and think about risks for your company.	
4	Information	Next Meeting: Hans will talk about the OT Semiconductor Point of Contact and the OT statements published online	Hans Elten		Done	Statement about critical minerals was published by the OT.	
5	Information	Next Meeting: Agree on the Chatham House rule in our working group.	Hans Elten		Done	Under the Chatham House Rule, anyone who comes to a meeting is free to use information from the discussion, but is not allowed to name who made any particular comment.	

Meeting Minutes - 5th Meeting for Subgroup Digital Twin within WG Supply Chain for the Industrial Alliance 06.06.2025							
Meeting	Date	Participants	Name of the owner	Deadline	Status	Comments	Links
1	06.06.2025	Hans Elten, Viktoria Kibbe, Shiva Casati, Javier Tercero, Ben Seifert, Henrik Schmitz, Dominik Blosch, Philippe Vialletta, Orelis Traxendic, Lorenzo Castiglioni, Yarnick Meisler, Maria Bork, Lars Mönch, Bili de Jong	Hans Elten				
Item #	Item Type	Topic	A/R Owner: Decider: Information	Deadline (A/R)	Status (A/R)	Comments	Links
1	Information	Rules/Regulation: only registered members of IA are allowed to join meetings, individuals need approval by the representative of their organization. One time guests with invitation or people in the process of registration are also allowed.	Hans Elten		Done		
2	Information	Update on OnDemand and its improved User Interface	Ben Seifert		Done		OnDemand
3	Information	Overview of product links of companies in the IA	Viktoria Kibbe, Hans Elten		Done	Please check your company and let us know if you have a better overview of your companies products available online.	
4	Information	Risk Management approach by Infineon	Shiva Casati, Hans Elten		Done	Comment Lorenzo commented that the Commission needs to understand risks so they can handle them. Question is where is the supply chain fragile. Hans suggested that Lorenzo could provide a few risks he sees. Lorenzo also added that he thinks the formulation in the boxes of the matrix isn't unclear, according to him the danger of not being able to manufacture chips in Europe is a better description than just saying impact on companies.	
5	Discussion	Open Discussion	everyone		Done	Lorenzo asked to see the Digital Twin but right now the DT is just a structure (Digital Reference). There is no data yet. But in the next meeting we could talk about what the DT should look like.	

 Meeting Minutes - 4th Meeting for Subgroup Digital Twin within WG Supply Chain for the Industrial Alliance 23.05.2025							
Meeting	Date	Participants	Name of the owner	Deadline	Status	Comments	Links
1	23.05.2025	Hans Elten, Viktoria Kibbe, Shiva Casati, Javier Tercero, Ben Seifert, Henrik Schmitz, Alessia Grimaldi, Philippe Vialletta, Orelis Traxendic, Jan Van Dieven, Rene Van der Bosch, Harald Gosser, Lorenzo Castiglioni	Hans Elten				
Item #	Item Type	Topic	A/R Owner: Decider: Information	Deadline (A/R)	Status (A/R)	Comments	Links
1	Information	Rules/Regulation: only registered members of IA are allowed to join meetings, individuals need approval by the representative of their organization. One time guests with invitation or people in the process of registration are also allowed.	Hans Elten		Done		
2	Information	Update on OnDemand and its improved User Interface	Ben Seifert		Done	Customized Lessons: What is the scope? DT is long and complex, it's hard to complete it will be hard to extract the important information, customized tags. We can decide what E2E means. Tags are important that is obvious, critical materials that Lorenzo referred to a little while ago.	OnDemand
3	Information	Overview of the Fab in Europe	Shiva Casati, Hans Elten		Ongoing	Comments from participants: add exact locations of the Fab, add info to context menu	
4	Discussion	Discussion based on questions from Lorenzo about the Scope triggered the idea of a proper risk management	Lorenzo Castiglioni, Hans Elten, Harald Gosser		Ongoing	Lorenzo suggested our tool should highlight risks. Harald had concerns about a Dynamic Digital Twin because who would be responsible for handling the DT. According to Lorenzo a simple version that shows the connections within the Supply Chain would be enough. It could show structural risks rather than certain events. Hans proposed that Infineon would prepare an risk management approach.	
5	Info	Infineon will assist a risk management approach in the next meeting	Shiva Casati, Hans Elten	06.06.2025	Ongoing		

 Meeting Minutes - 3rd Meeting for Subgroup Digital Twin within WG Supply Chain for the Industrial Alliance 05.05.2025							
Meeting	Date	Participants	Name of the owner	Deadline	Status	Comments	Links
1	05.05.2025	Hans Elten, Viktoria Kibbe, Shiva Casati, Bili de Jong, Harald Gosser, Henrik Schmitz, Lorenzo Castiglioni, Yarnick Meisler, Roberto Zafra, Raphael Paurtner, Ben Seifert, Shiva Casati	Hans Elten				
Item #	Item Type	Topic	A/R Owner: Decider: Information	Deadline (A/R)	Status (A/R)	Comments	Links
1	Information	Rules/Regulation: only registered members of IA are allowed to join meetings, individuals need approval by the representative of their organization. One time guests with invitation or people in the process of registration are also allowed.	Hans Elten		Done	Satinder Paul Singh (Thames) needs to send an email to Hans confirming they applied to become a member of the IA.	
2	Information	Update on OnDemand and its improved User Interface	Ben Seifert		Done		OnDemand
3	Information	Recap of the F2F meeting in Brussels on the 6th of May. List of participants and the results of the workshop about the Digital Twin were shared.	Hans Elten		Done	Please find the Powers with the results from the F2F meeting with the following link.	Powers Brussels
4	Interactive Brainstorming	Mutual on ideas to implement and achieve the results of the F2F meeting in Brussels	Hans Elten		Done	To use all answers please click the following link.	Mutual
5	Summary	We have insights and ideas, now it's business times to get more concrete	Hans Elten		Done		

 Meeting Minutes - 2nd Meeting for Subgroup Digital Twin within WG Supply Chain for the Industrial Alliance 21.04.2025							
Meeting	Date	Participants	Name of the owner	Deadline	Status	Comments	Links
1	21.04.2025	Hans Elten, Carlos Pardo, Bili de Jong, Christophe Wyon, Craig Priddy, Ben Seifert, Viktoria Kibbe, Henrik Schmitz, Dominik Blosch, Harald Gosser, Lars Mönch, Nicolas Jaymond, Peter Casner, Philippe Vialletta, Ricardo Moreno, Robert Kyrus, Roberto Rangel, Stephan Sauer, Peter Casner, Vincent de Maess	Hans Elten				
Item #	Item Type	Topic	A/R Owner: Decider: Information	Deadline (A/R)	Status (A/R)	Comments	Links
1	Information	Rules/Regulation: only registered members of IA are allowed to join meetings, individuals need approval by the representative of their organization. One time guests with invitation or people in the process of registration are also allowed.	Hans Elten		Done	We will send out a list with contact data including contacts for working Group members to get connected within the group.	
2	Information	Review on Feedback from the Kickoff meeting. Update on OnDemand and its improved User Interface	Ben Seifert		Done		OnDemand
3	Interactive Brainstorming	Review on SC Chances & Risks / How can OT harvest Chances & mitigate Risks? Everyone could share their thoughts.	Henrik Schmitz		Done	Answers were collected and might get clustered and discussed again. To use all answers, click the following link.	Mutual
4	Information	Information on the 3rd meeting in Brussels on the 6th of May. The Physical Workshop will take place on 6 May from 09:00 to 18:00 CEST at SHBES Meeting in Brussels, Belgium.	Hans Elten		Done	Find the registration link and agenda with the following link.	Registration Brussels