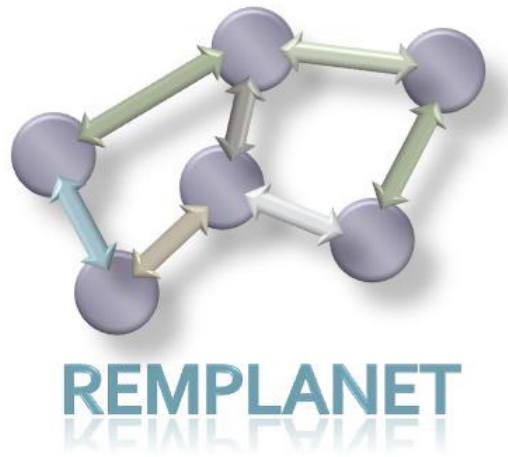


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DELIVERABLE D3.4

Best-practice repository

Work package 3

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0.1	Document structure definition
0.3	Best practice template definition
0.5	Initial Classifications
0.7	Inclusion of sub classification
0.9	Best practice repository online tool description
1.0	Final version before the review
1.1	Final version after internal review

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EXECUTIVE SUMMARY

This deliverable illustrates the steps taken in producing the first version of the REPLANET Best Practice Repository and presents the repository in its current state.

The Repository is based on a template that allows information on a particular best practice to be categorised and indexed. The template was sent to REPLANET partners for contributions. Twenty one best practices were identified by REPLANET partners at this stage in the project.

An initial set of classifications was developed which at this time consists of three classifications which are Strategy, Operations and Networks. The REPLANET partner completing the template was asked to select the appropriate category for each best practice.

Once the templates were collected, they were analysed and a set of three sub categories were developed. It was originally intended that there would be a separate set of sub categories for each category, however when the submissions were analysed common themes were identified across the three categories. The sub categories used in the Best Practice Repository are Variety and Customisation Management, Linking Products, Processes and Networks and Differentiating Order Fulfilment Environments.

The templates have been uploaded onto the REPLANET site to allow wider access to the Best Practice Repository.

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PART I

I.1 INTRODUCTION

The main concept of the REMPLANET project is to develop methods, guidelines and tools for the creation and efficient and effective working of non hierarchical manufacturing networks. This deliverable considers how to collate these into a best practice repository based on a classification system of key REMPLANET deliverables. This repository will act as a blue print for rapidly designing and creating resilient multi-plant networks.

This deliverable describes how the Best Practice Repository was created and presents the information currently in the Best Practice Repository. The aim of the Best Practice Repository is to create a taxonomy that can be used for indexing and referring to any piece of information generated within the project. The framework will then constitute a best practice repository that can be re-used in similar network environments as a blueprint for rapidly designing and creating resilient multi plant network.

This will be put together from information gathered by all the partners in the project throughout the remaining eighteen months of the project.

I.2 METHODS TO PRODUCE THE DELIVERABLE

This deliverable was produced in month 18 with collaboration from the work packages that are finishing in month 18, as it was decided that partners were in the best position to identify key best practice ideas once their research was finished. The steps taken in producing the deliverable are as follows.

- 1) A template was designed to allow the information collected on each topic to be easily categorised.
- 2) A basic set of classifications were also developed to guide the submission of templates.
- 3) Templates were sent out to relevant partners with a request for any information they believed should be in the best practice repository.
- 4) Once the completed templates were filled in, they were analysed and a sub classification system was designed to organise the information to allow quick access to relevant information on a particular subject.
- 5) The templates were also put onto the REMPLANET site to allow easier access to the information.

I.3 MAIN RESULTS

The main result of this deliverable is the Best Practice Repository. This takes two main forms firstly in the form of this document, which in its annex, contains copies of all the templates currently in the REMPLANET Best Practice Repository organised by category and then by sub category.

The Best Practice Repository currently consists of twenty-one templates categorised into three main categories and three sub categories.

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An important part of the results of this deliverable is the classification system that has been designed to index the information. This gives each template two classifications firstly a major classification which is derived from the main theme of the work package the best practice came from and secondly the sub classification which splits this broad theme down into more focused areas.

The second form the best practice repository takes is that of an on-line resource. The on-line best practice repository can be found on the REPLANET website under task 3.4. The templates have been put onto the website to allow easier access to them.

I.4 FUTURE WORK

The Best Practice Repository will be added to as work packages finish. The best practice repository presented in this report only gives the best practices that have been found during the first eighteen months of the project.

New templates will be collected periodically throughout the remaining eighteen months of the project. This will be done as work packages finish as this is the point where partners are likely to be in the best position to judge what practices related to their topics constitute a 'best practice'.

E-mails will be sent to partners as the work packages end with the template attached asking them to fill in any relevant information from their work package. These will then be analysed and where possible fitted into existing categories and sub categories. In some cases new categories and sub categories may be needed.

These will then be uploaded to the REPLANET website.

The inclusion of these new templates may lead to modifications being made to the classification system to allow new information to be best classified. It is unknown at this stage what form these modifications may take.

I.5 CONCLUSIONS

This document describes the process used for producing the REPLANET Best Practice Repository and the results of this process. The best practice repository contains all the best practices that have been identified by the work packages that have finished at month eighteen. The Best Practice Repository consist of methods, guidelines and tools for the creation and efficient and effective working of non hierarchical manufacturing networks.

The Best Practice Repository currently consists of twenty-one templates however these will be added to as further best practices are identified during the remainder of the REPLANET project.

Relevant major and sub classification systems have been identified and used to index the best practices to allow relevant data to be found quickly and easily. These major and sub classifications allow data to be organised so that the Best Practice Repository can be used as a blueprint for rapidly designing and creating a resilient multi-plant network.

The best practice templates have been organised into this report and then put onto the REPLANET site to maximise access to them.

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PART II

II.1 INTRODUCTION

The Best Practice Repository is an important part of the REMPLANET project as it will provide a single repository for all the best practice data identified in the project. This repository will act as blueprint for rapidly designing and creating resilient multi-plant networks.

The practices that appear in the Best Practice Repository were chosen by the partners in the REMPLANET consortium. At this point in the project the only partners who felt they had best practices to contribute were work package one and work package two. It was felt that they were in a better position to contribute due to the fact that their research activities have come to an end. Contributions from other work packages will be added to the website throughout the remaining eighteen months of the project.

The best practice template consists of a number of categories to allow information to be sorted and analysed more easily. This template also allows best practices to be sorted by classification, based on the broad themes of the work package and sub classification, which breaks the classifications down into smaller topics.

II.2 METHODOLOGY

A template was devised for contributions to the Best Practice Repository that would allow contributors to easily insert and categorise the information related to their Best Practices. The template included sections on.

- Best Practice Title
- Major Classification
- Sub Classification
- Type of problem it has been designed to solve
- Type of best practice
- Procedure/ Application steps
- Contribution
- Disadvantages/limits

The major classifications used to date are Strategy, Operations and Network. As work packages finish and best practices are added these maybe amended to better fit the information provided. The aim of the repository is to produce a repository to act as a blue print for rapidly designing and creating resilient multi plant networks based on a classification system of the deliverables. At present the main themes undertaken in the finished deliverables are strategy, operations and networks, which is why these have been chosen.

Work packages that are finishing in month 18 were then asked to fill these templates in providing brief outlines for each section.

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Once the templates had been submitted, sub classifications were considered. It was originally intended that each of the major classifications would have a different set of sub classifications, however when the templates were considered it became obvious that there were common themes that ran through all three major classifications. For this reason the sub classifications chosen are common to all three major classifications. The sub classifications used are Variety and Customisation Management, Linking Products, Processes and Networks and Differential Order Fulfilment Environments.

II.3 BEST PRACTICE REPOSITORY

Table one shows the titles of each best practice repository template received and the classifications they are represented by in the Best Practice Repository. The full templates can be found in Appendix I.

The three major classifications were chosen as they are main themes of work packages one, two and three. They are also the three main sections of the REMPLANET Integrated Model. Other major classifications may be added as work packages four and five which have slightly different themes end.

The sub classifications were chosen after all the templates had been analysed. The original idea had been to have a set of sub classification for each major classification however when the best practice templates were analysed it was noted that some of the topics covered overlapped between two or more major classifications.

The three sub classifications chosen are topics that are important to creating a resilient supply network and ones that multiple best practices were submitted for.

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Table 1: Best Practice Repository

		Major Classification		
		STRATEGY	OPERATIONS	NETWORK
Sub Classification	Variety and Customisation Management	<u>Mass Customisation Conceptual Underpinnings</u>	<u>Making Mass Customisation Work</u>	<u>Open Innovation Platform for Mass Customisation</u>
		<u>Idea Management Process</u>	<u>Quantitative Tools to Estimate Manufacturing Costs of Providing Variety</u>	<u>Dynamic Order Fulfilment Models</u>
		<u>The Mass Customisation Roadmap</u> <u>Cracking the Code of Mass Customisation</u> <u>Mass Customisation for SME's</u> <u>Mass Customising through Postponement</u> <u>Modularisation</u> <u>Product Family Architecture Definition</u>		
Linking Products, Processes and Networks	<u>Interlinking Multiple Hierarchies of Product, Production and Supplier Systems</u>		<u>Three Dimensional Concurrent Engineering</u>	
	<u>Assessment tool to link product, process and supply chain design decisions</u>		<u>Product-process Decoupling Point Placement</u> <u>Right Supply Chain for your Product</u>	
Differentiating Order Fulfilment Environments		<u>Choosing the Appropriate Capacity for a BTF Production Environment</u>	<u>Positioning Multiple Decoupling Points in a Supply Network</u>	
		<u>Coping with the BTF Environment</u>	<u>Strategic Positioning of the OPP</u>	

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II.4 BEST PRACTICE REPOSITORY ONLINE TOOL

The Best Practise Repository (BPR) has been set up in an online web tool in order to support users in finding those best practices he/she is interested in. The BPR has been integrated within the REPLANET Portal and it has been developed using the technology Plone. Plone is a free and open source content management system built on top of the Zope application Server.

In the following figure the main page of the BPR is shown:

	STRATEGY	OPERATIONS	NETWORK
Variety and Customisation Management	Mass Customisation Conceptual Underpinnings	Making Mass Customisation Work	Open Innovation Platform for Mass Customisation
	Idea Management Process	Quantitative Tools to Estimate Manufacturing Costs of Providing Variety	Dynamic Order Fulfillment Models
	Making Mass Customisation Work		
	The Mass Customisation Roadmap		
	Cracking the Code of Mass Customisation		
	Mass Customisation for SME's		
	Mass Customising through Re-positionment		
	Modularisation		
	Product Family Architecture Definition		
	Interlinking Multiple Hierarchies of Product, Production and Supplier Systems		Three Dimensional Concurrent Engineering
Linking Products, Processes and Networks	Assessment tool to link product, process and supply chain design decisions		Product-process Decoupling Point Placement
			Right Supply Chain for your Product
Differentiating Order Fulfillment Environments		Choosing the Appropriate Capacity for a BTP Production Environment	Positioning Multiple Decoupling Points in a Supply Network
		Coping with the BTP Environment	Strategic Positioning of the OPP

Figure 1: REPLANET BPR.

This online tool has the following properties:

- System management.
- Users management.
- Online access.
- Manage content.
- Access content.
- Search.

Moreover, the BPR online tool is very easy to use in a secure environment and offers excellent flexibility. The information is classified in a structured way which allows users to gain access to the requested contents in a very simple way.

The Best Practices are classified as follows:

- Major Classification: Strategy, Operations and Network.
- Sub Classification: Variety and Customisation Management, Linking Products, Processes and Networks and Differentiating Order Fulfillment Environments.

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- Type: Framework, Guideline, Hewlett-Packard best practices, method, model, platform and tool.

This classification allows users to search the different best practices following the previous criteria. For example, a user who wishes to search all the best practices that are classified as model, could use the advance search for content and chose the option of BPR Type Model and then a list of the best practices classified as model will be displayed:

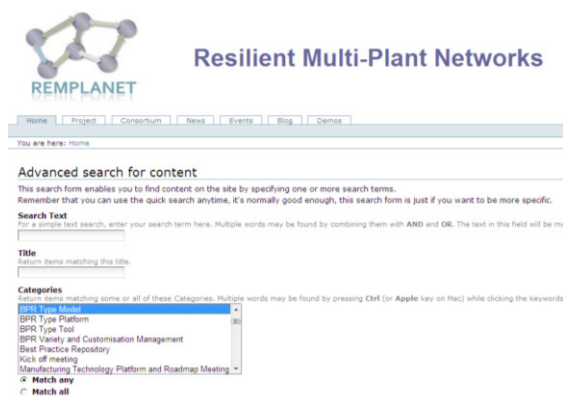


Figure 2: BPR Advanced search.



Figure 3: Results of the Advance Search.

II.5 FUTURE WORK

The Best Practice Repository is not finished at this stage as further input will be required, as work packages finish, to add new concepts to the repository and potentially add classifications to better categorise the data.

The template document will be sent out to the work package leader when the work package finishes and at this point they should be able to give a comprehensive overview of the best practices that have been found in their research. In addition to this at the end of work package six, the pilot studies, templates will be sent to all of the industrial partners, to capture the best practices they have developed within the project.

At each submission stage the major classification and sub categories will be reconsidered to ensure that they still provide an adequate reference framework for designing and creating a resilient multi plant network. The classifications may have to be modified or new classes may have to be created to keep this functionality of the repository.

All further best practice templates will be uploaded to the REMPLANET website.

II.6 CONCLUSIONS

The Best Practice Repository presented provides data acquired in this project that will aid companies to design and create resilient multi-plant networks. Within the Best Practice Repository there are twenty one templates related to strategy, operations and networks. Of these twenty one templates, eleven have been classed as relating to strategy, four to operations and seven to networks.

The Best Practice Repository aims to solve strategic issues are the most important to creating resilient networks. These issues include but are not limited to how to make a mass

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customisation strategy work, how to link products, processes and supply network design and product family design for variation and customisation.

The Best Practice Repository deals with important operational issues such as how to allocate capacity and how to design operations for mass customisation. The Best Practice Repository also considers questions relevant to specifically to network design such as open innovation and decoupling point placement.

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