

Process-pattern.app – A collection of business process redesign patterns

Tobias Fehrer¹[0000–0002–8798–5724]

Research Center Finance & Information Management, University of Bayreuth,
Bayreuth, Germany tobias.fehrer@fim-rc.de

Abstract. This paper is a tutorial document for process-pattern.app, an innovative online tool consolidating a comprehensive collection of Business Process Redesign (BPR) patterns from the literature and the field. The tutorial provides an overview of the site’s structure, content, and usability features, with a focus on specific sections such as the Pattern Book, Pairings, Case Studies, and Research. It also includes a detailed exploration of an exemplary pattern, “Green Compensation”, and discusses the website’s technical aspects, including its search engine optimization and mobile-friendly design.

1 Introduction

The Process Pattern website is a collection of BPR patterns and best practices for process improvement. It provides a variety of resources, including articles, research papers, and patterns that can be used to inspire and guide process improvement efforts.

The homepage provides an overview of the website’s offerings. It introduces the concept of process patterns and their benefits, such as sparking innovation, providing practical guidance, boosting efficiency, fostering continuous improvement, and promoting sustainable growth. The homepage also features a sign-up form for news and updates.

2 Pattern Book

The section dedicated to patterns¹ houses a collection of process improvement patterns, which is regularly updated with new additions. Each pattern comes with a succinct description and a link leading to more comprehensive information. Examples of these patterns include “Offer temporal flexibility”, “Shift Workload”, “Use eco-friendly resources”, and “Establish a case-based mindset”. The patterns can be located using a full-text search feature, and a filtering option is available for category-based selection. This section serves as an initial point of exploration for all the available patterns on the website. A screenshot of the section is presented in Figure 1

¹ <https://process-pattern.app/book>

Process Pattern.book Patterns Research Tobias' Team Tobias ▾

■ Patterns
 ■ Pairings
 ■ Cheat Sheets
 ■ Case Studies
 ■ Research

Patterns

Search

There are 27 patterns

Apply integral technology
Elevate physical constraints by applying new technology

Apply triage
Consider the division of a general activity into two or more alternative activities

Appoint case managers
Assign a responsible individual for handling each case type

Assign cases
Let workers perform as many steps as possible for single cases

Automate activities
Consider automating activities

Buffer information
Buffer external information and subscribe to updates

Combine activities
Combine small activities into composite activities

Deploy extra resources
If capacity is insufficient, consider increasing the available number of resources

Distinguish case types
Determine whether activities are related to the same type of case and, if necessary, distinguish new business processes

Eliminate activities
Eliminate unnecessary activities

Empower resources
Give workers most of the decision-making authority instead of relying on middle management

Establish a case-based mindset
Remove batch-processing and periodic activities from your business process

Fail Early
Order knock-outs in an increasing order of effort and in a decreasing order of termination probability

Green Compensation
Initiate compensatory activities to actively mitigate the environmental impact caused by unmodifiable business processes

Green Variant
Offer a green alternative with the same outcome, utilizing different steps, resources, or partners, while retaining the previous existing process

Improve Activities
Improve the way a single practice is executed

Isolate exceptions
Design business processes for typical cases and isolate exceptional cases from the normal flow

Offer Customer self-service
Offer customers the possibility to serve themselves

Offer location flexibility
Let customers interact with the company wherever they want to

Offer temporal flexibility
Let customers interact with your organization whenever they want to.

Parallelize activities
Consider whether activities may be executed in parallel

Reduce touchpoints
Reduce the number of contacts with customers and third parties

Resequence activities
Move activities to more appropriate places

Shift Workload
Execute tasks when the grid is powered by renewable energy

Split responsibilities
Avoid shared responsibilities for tasks by people from different functional units

Use eco-friendly resources
Replace underlying resources with eco-friendly alternatives

Work in customer teams
Compose work teams of people from different departments that will take care of the complete handling of specific sorts of cases

Apply integral technology
Elevate physical constraints by applying new technology

Apply triage
Consider the division of a general activity into two or more alternative activities

Appoint case managers
Assign a responsible individual for handling each case type

Assign cases
Let workers perform as many steps as possible for single cases

Automate activities
Consider automating activities

Buffer information
Buffer external information and subscribe to updates

Combine activities
Combine small activities into composite activities

Deploy extra resources
If capacity is insufficient, consider increasing the available number of resources

Distinguish case types
Determine whether activities are related to the same type of case and, if necessary, distinguish new business processes

Eliminate activities
Eliminate unnecessary activities

Empower resources
Give workers most of the decision-making authority instead of relying on middle management

Establish a case-based mindset
Remove batch-processing and periodic activities from your business process

Fail Early
Order knock-outs in an increasing order of effort and in a decreasing order of termination probability

Green Compensation
Initiate compensatory activities to actively mitigate the environmental impact caused by unmodifiable business processes

Green Variant
Offer a green alternative with the same outcome, utilizing different steps, resources, or partners, while retaining the previous existing process

Improve Activities
Improve the way a single practice is executed

Isolate exceptions
Design business processes for typical cases and isolate exceptional cases from the normal flow

Offer Customer self-service
Offer customers the possibility to serve themselves

Offer location flexibility
Let customers interact with the company wherever they want to

Offer temporal flexibility
Let customers interact with your organization whenever they want to.

Parallelize activities
Consider whether activities may be executed in parallel

Reduce touchpoints
Reduce the number of contacts with customers and third parties

Resequence activities
Move activities to more appropriate places

Shift Workload
Execute tasks when the grid is powered by renewable energy

Split responsibilities
Avoid shared responsibilities for tasks by people from different functional units

Use eco-friendly resources
Replace underlying resources with eco-friendly alternatives

Work in customer teams
Compose work teams of people from different departments that will take care of the complete handling of specific sorts of cases

What's Happening?

	New CheatSheet	New CheatSheet Human-Centric Process design.	2 days ago
	New CheatSheet	New CheatSheet Customer-centricity.	3 weeks ago
	New CheatSheet	New CheatSheet Sustainable Process design.	3 weeks ago
	New Reference	New Reference Automated Knock-Out Checks with Process Mining.	3 weeks ago

Fig. 1. Screenshot of the pattern section of process-pattern.app (<https://process-pattern.app/book>)

3 Pairings

The pairings section² provides information on how different patterns can be combined for effective process improvement. It currently features the premium service pairing. The section can be navigated just like the pattern book in Section 2.

4 Case Studies

The case studies section³ provides real-world examples of how the patterns have been applied in practice. It includes case studies from companies like Lufthansa, IKEA, and REWE.

5 Research

The research section⁴ features academic sources covering process improvement topics. It includes original sources for the BPR patterns featured on the site and papers on topics like automated knock-out checks with process mining, assisted business process redesign, and design heuristics for customer-centric business processes.

6 Exemplary Pattern: Green Compensation

The “Green Compensation” pattern⁵ is a strategy for mitigating the environmental impact of business processes that cannot be modified. This pattern involves initiating compensatory activities whenever an immutable business process begins, offsetting part or all of the original process’s environmental impact. In the following, the structure of the pattern page is described.

Pattern Title and Summary The page begins with the title of the pattern, “Green Compensation”, followed by a brief summary that describes the purpose of the pattern and the academic source from which the pattern was taken.

Pattern Description This section offers an in-depth exploration of the pattern, elucidating the problems it aims to solve and the remedies it proposes. It incorporates details about the circumstances and reasons for utilizing this pattern. It provides guidance on how to incorporate the pattern into a business process. This section contemplates the possible outcomes of applying the pattern, including its influence on environmental sustainability and the prospective advantages it could bring to the organization.

² <https://process-pattern.app/pairings>

³ <https://process-pattern.app/case-studies>

⁴ <https://process-pattern.app/research>

⁵ <https://process-pattern.app/book/patterns/green-compensation>



Fig. 2. Social share preview of process-pattern.app as used in social media platforms.

Key Takeaways This section provides a list of key points to remember about the “Green Compensation” pattern. These takeaways summarize the most important aspects of the pattern.

Performance Considerations This section presents a visual depiction of the performance implications of the pattern, encompassing aspects such as sustainability, cost, flexibility, time, and quality. The graphical representation takes the form of a spider diagram, reminiscent of the devil’s quadrangle, but with additional dimensions tailored to the specific pattern. Future work intends to incorporate a feature that enables community-based evaluation of the pattern’s effects, thereby fostering a more collaborative and comprehensive understanding of its impact.

Related Case Studies This section provides links to case studies that are related to the “Green Compensation” pattern. These case studies provide real-world examples of the pattern in action.

Connected Patterns This section provides links to other patterns that are connected to the “Green Compensation” pattern. These connected patterns can be used in conjunction with the “Green Compensation” pattern for more comprehensive process improvement.

7 Technical details

The website is designed with usability in mind. The layout is supposed to be clean and intuitive, with a clear navigation menu that makes it easy for users to find the information they need. The website also uses responsive design, ensuring that it looks and functions well on a variety of devices and screen sizes.

The website is optimized for search engines, making it easier for users to find the site through search engines like Google. This includes the use of meta tags, proper use of headings, and keyword optimization in the content. The website also uses clean, readable URLs, which are preferred by search engines. For social media sharing, preview images are generated for the content pieces as can be seen in Figure 2.

The website is mobile-friendly, meaning it is designed to be fully functional and easy to navigate on mobile devices. This is increasingly important as more and more users are accessing websites from their smartphones and tablets. The responsive design ensures that the website layout adjusts to fit the screen size of the device, providing a good user experience regardless of the device used.