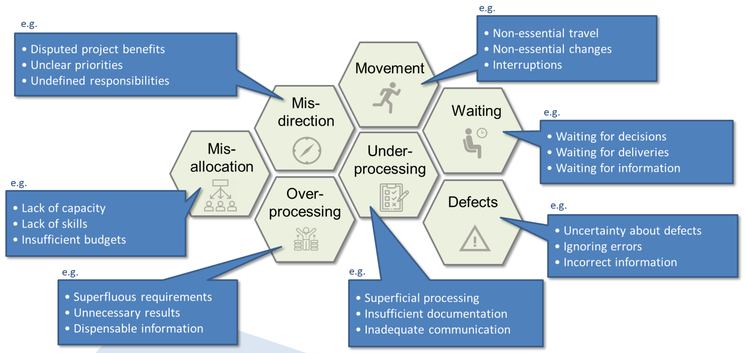
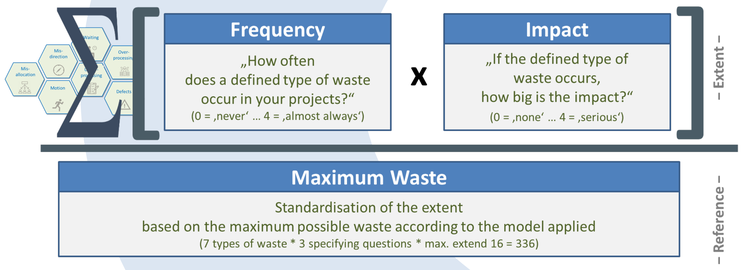
MEASURING AND MINIMIZING WASTE IN PROJECTS
– THE ‘PROJECT MANAGEMENT WASTE INDEX’ –

LeanPM. Netzwerk

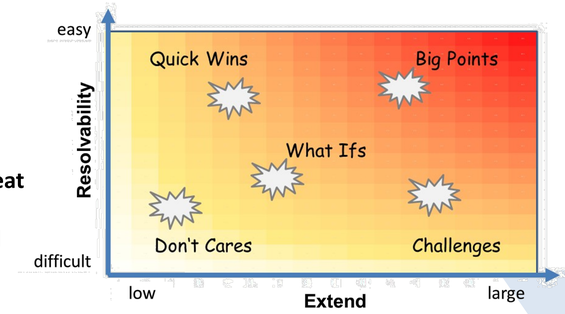
In line with the tradition of *Lean Thinking*, we understand **waste** in projects to mean all activities that do **not create value or benefit for project customers** (primarily users and clients of the project results).



To assess the extent of this waste in projects, we need a **measurement tool**. The blueprint for this measurement tool is the well-known ‘Body Mass Index’ (BMI).

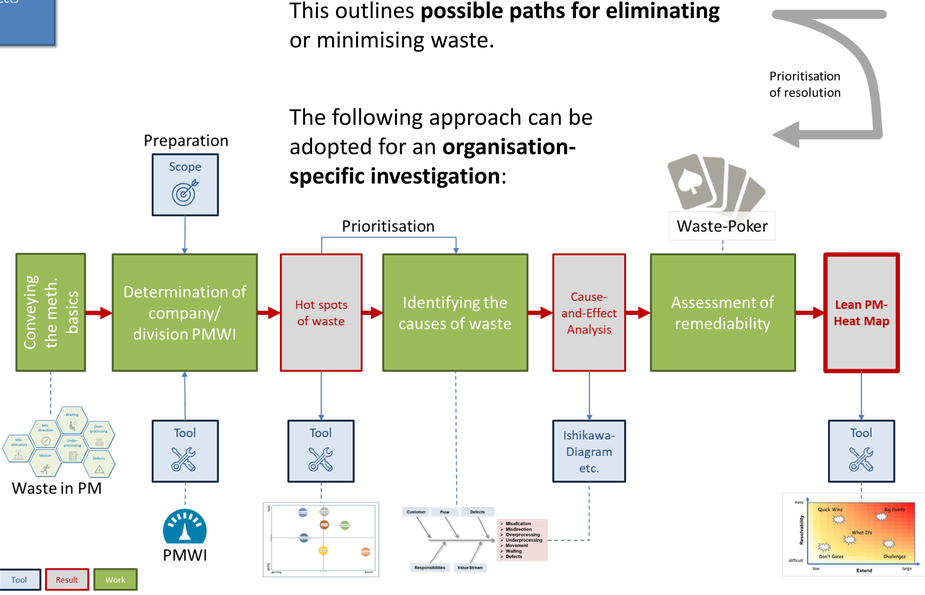


The identified causes can then be **evaluated in a heat map** according to the parameters of extent and remediability.

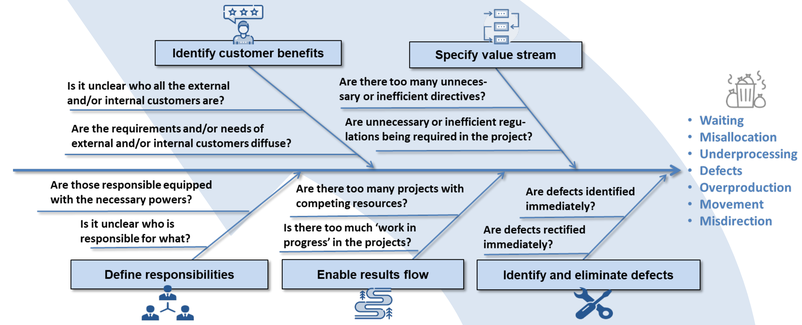


This outlines **possible paths for eliminating** or minimising waste.

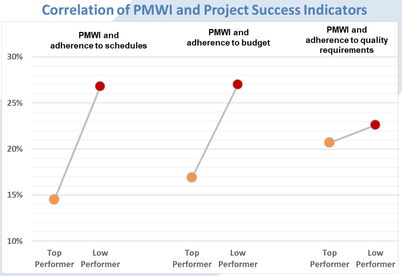
The following approach can be adopted for an **organisation-specific investigation**:



The search for the **causes** of this type of waste can be quite extensive and diffuse if proven **search fields** or **heuristics** are not used to enable quick and effective localisation of the primary causes.
Such heuristics can be derived from **principle-based approaches** of *Lean Management*.



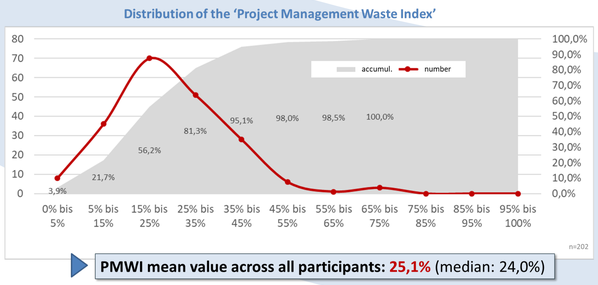
A fundamental insight is the **correlation** between the extent of **waste** in a project and its ultimate **success**.
Both the top performers in terms of achieving deadlines and budget report a significantly better PMWI!



Top Performers have a significantly lower PMWI than Low Performers.

The ‘Project Management Waste Index’ (PMWI) compares **the extent of waste in the project** under review, measured using the seven types of waste shown, with **its maximum possible extent**.

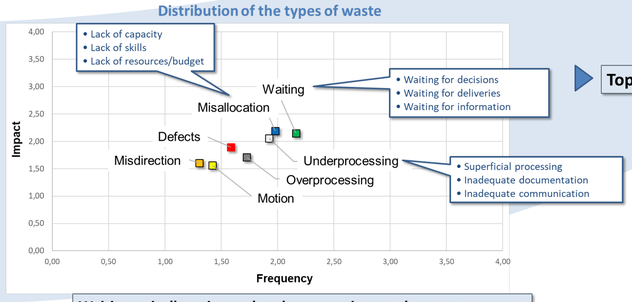
The extent is calculated by multiplying the **frequency of occurrence** by the **severity of the impact** (effect) – each measured on a Likert scale from 0 (never or none) to 4 (almost always or serious).



PMWI mean value across all participants: 25,1% (median: 24,0%)

The **PMWI calculated among the participants** is approx. 25.1% (median 24%). This means that a quarter of the ‘total’ waste actually occurs in the underlying projects!

There is **no significant variation** in the distribution of the seven types of waste defined. The frequency ranges on average between ‘rare’ and ‘frequent’ for all types, and the severity between “low” and ‘significant’.



Waiting, misallocation and underprocessing are the most common and serious types of waste.

Nevertheless, it can be clearly identified that unnecessary **waiting**, **misallocation** and **under-processing** are the types of waste with the greatest overall impact.

In order to apply the PMWI, the partners of the *LeanPM.Network* conducted a **Germany-wide survey** (N=202) between April and May 2021.