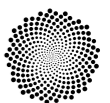
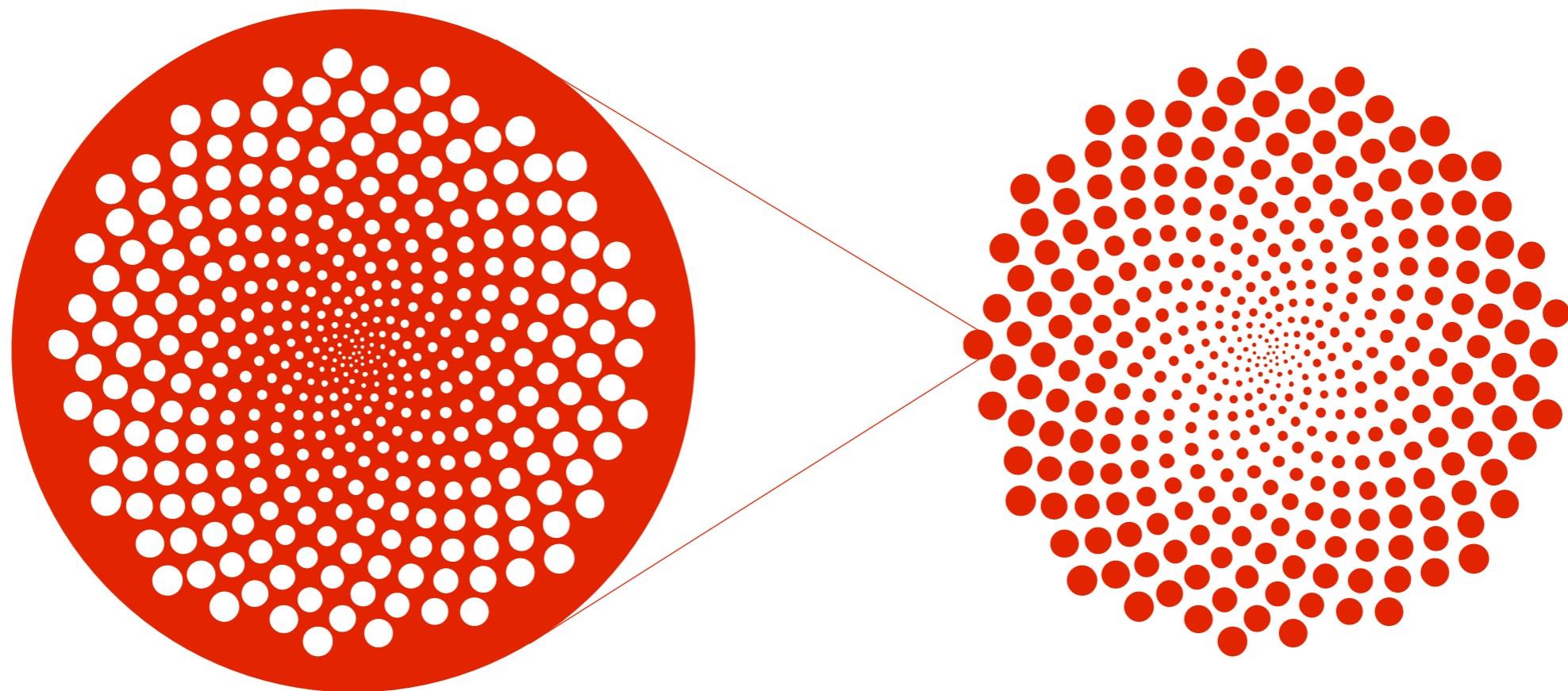


A Systems Centric Design Language

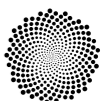
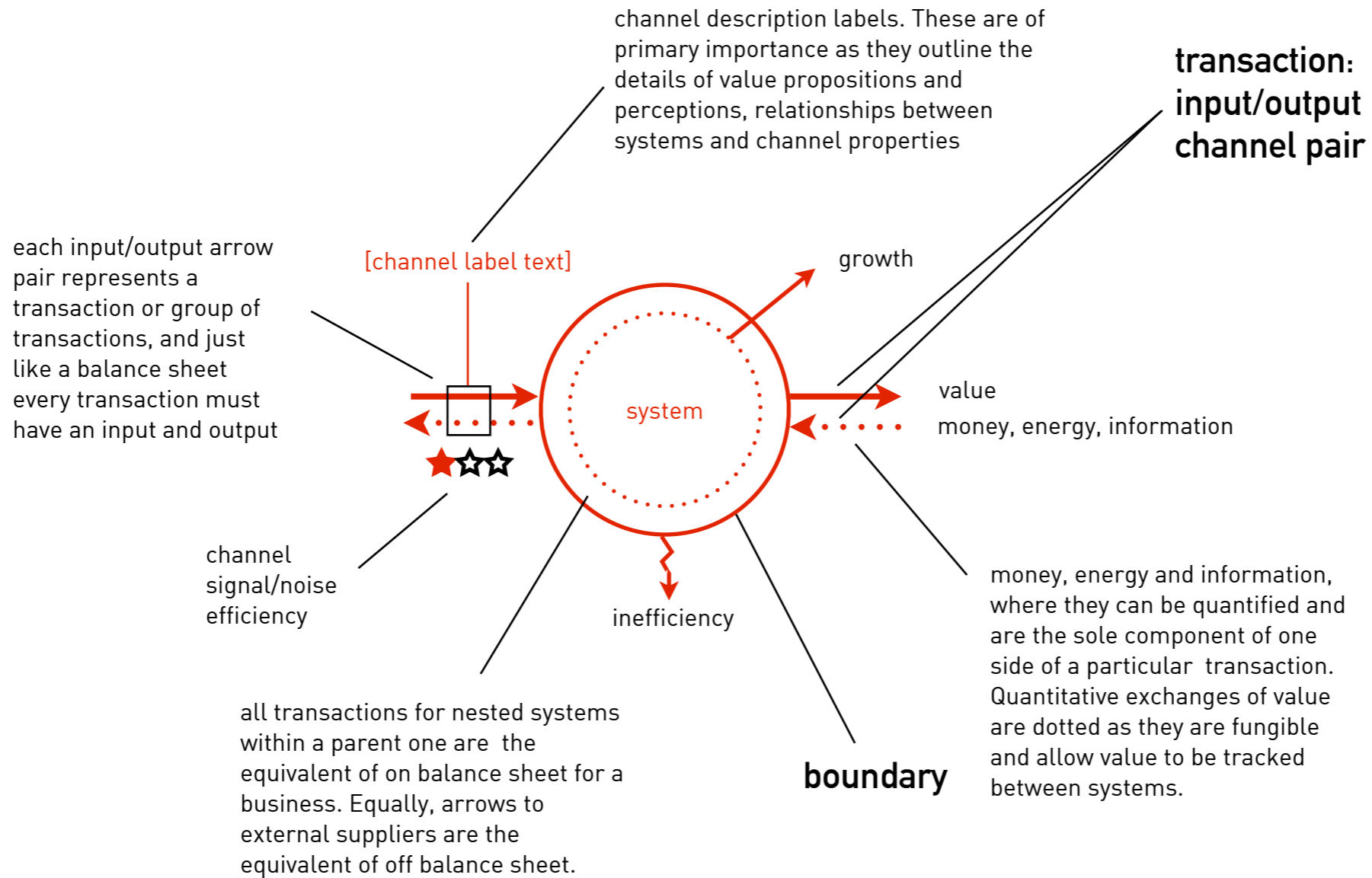


All venture design revolves around
open systems at different scales,
from people to ecosystems.

Open systems comprise a **boundary**
and **input & output channels**.



- (a) An arrow pointing to a system's boundary is its input, pointing away is its output (one system's input may be another's output).
- (b) A transaction is an input/output pair.
- (c) All inputs have a corresponding output, much like double entry bookkeeping.

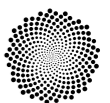
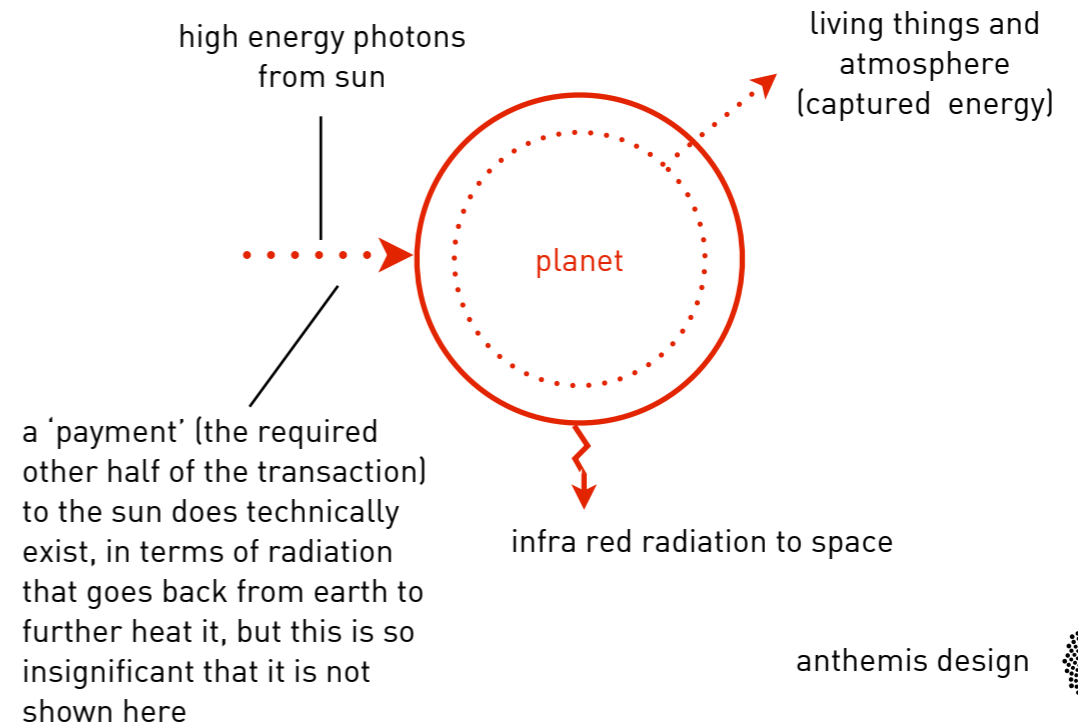
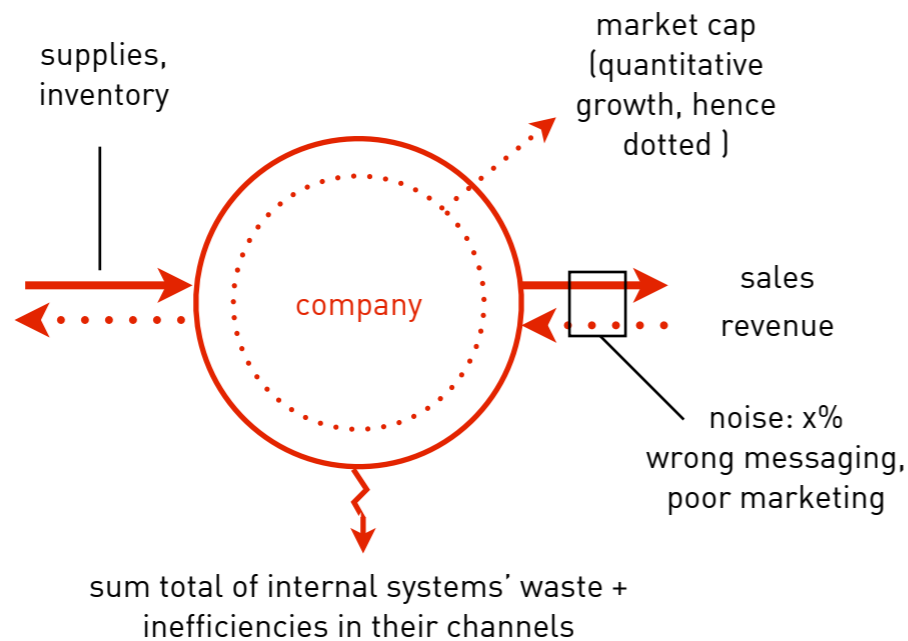
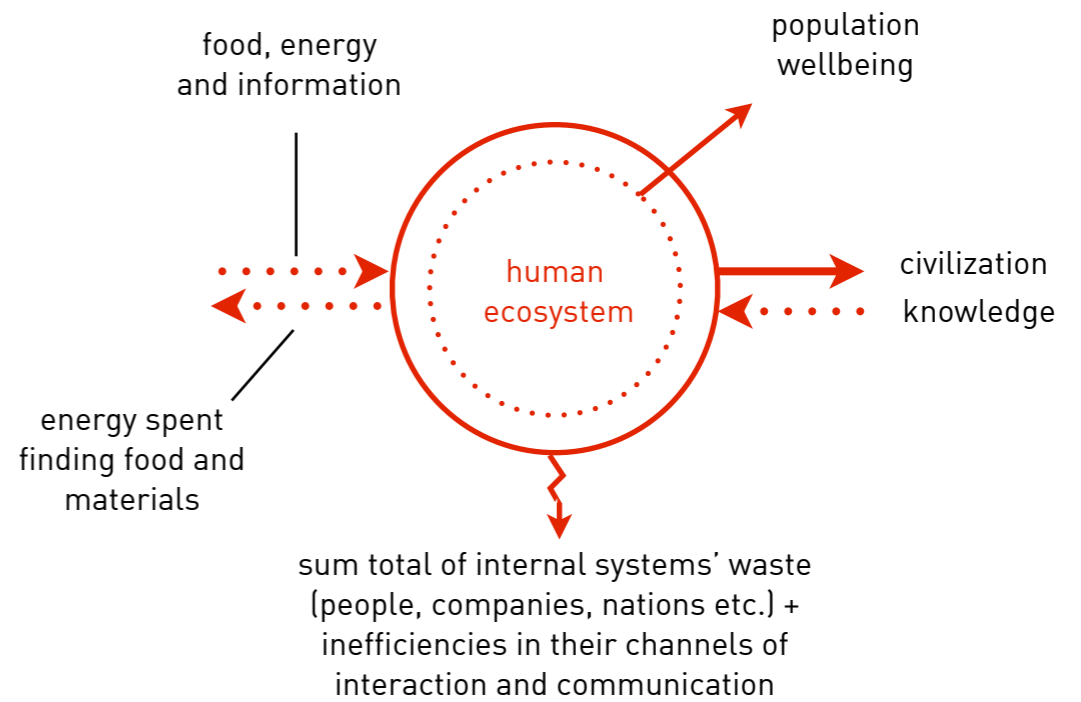
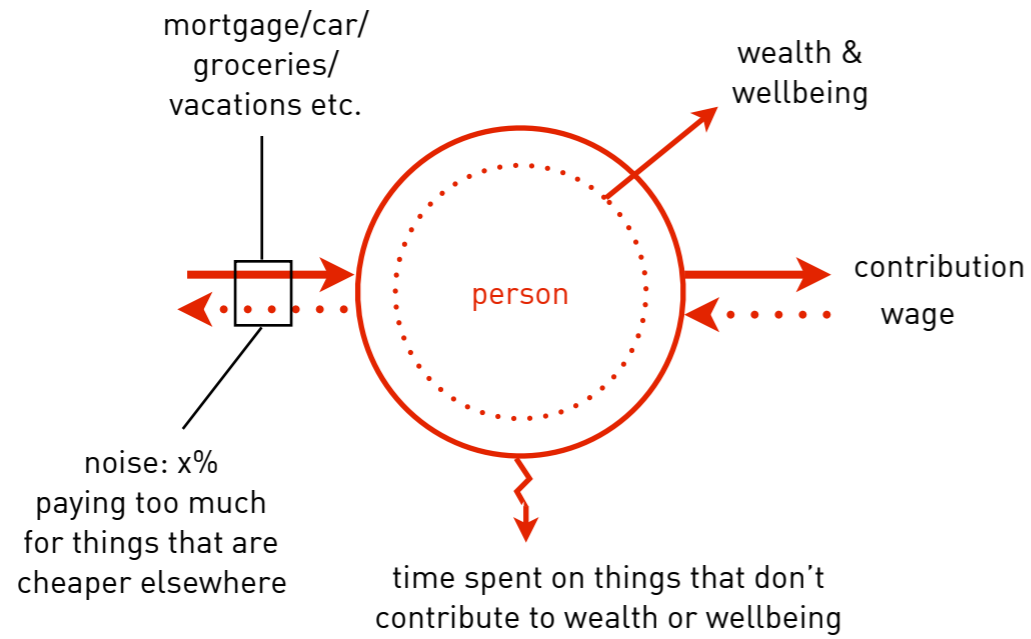


People, groups, companies,
ecosystems and our planet are all
open systems that are self-similar
and can nest within each other.



system types

self-similar system types, of different scale, nested within each other



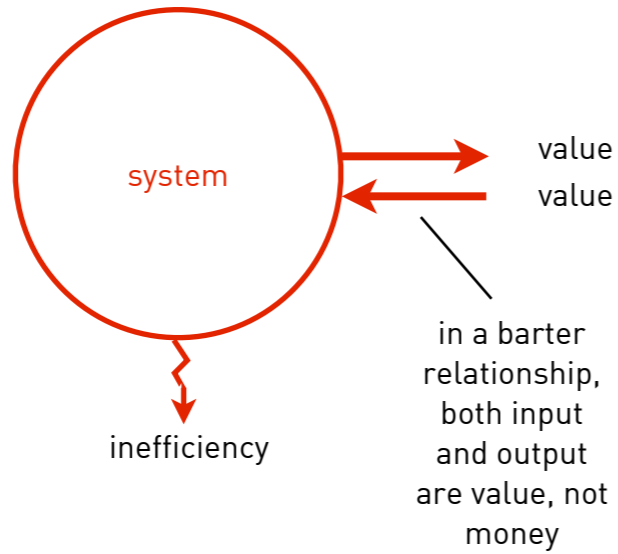
All transactions can be represented
as pairs of system input/outputs.



types of transactions

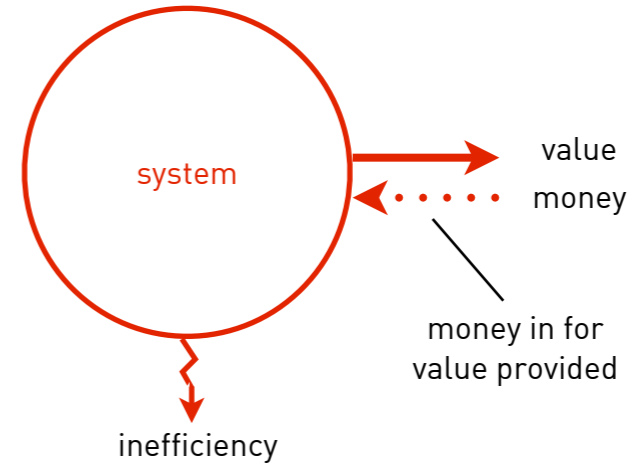
barter

something of value is exchanged for another thing of value



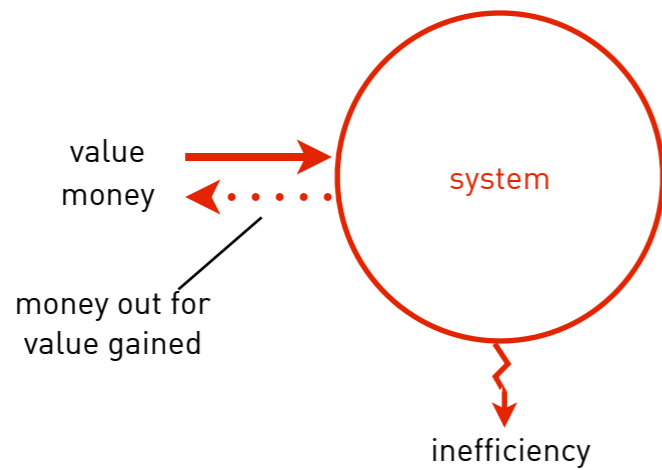
selling

money enters the system in exchange for value produced for another



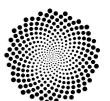
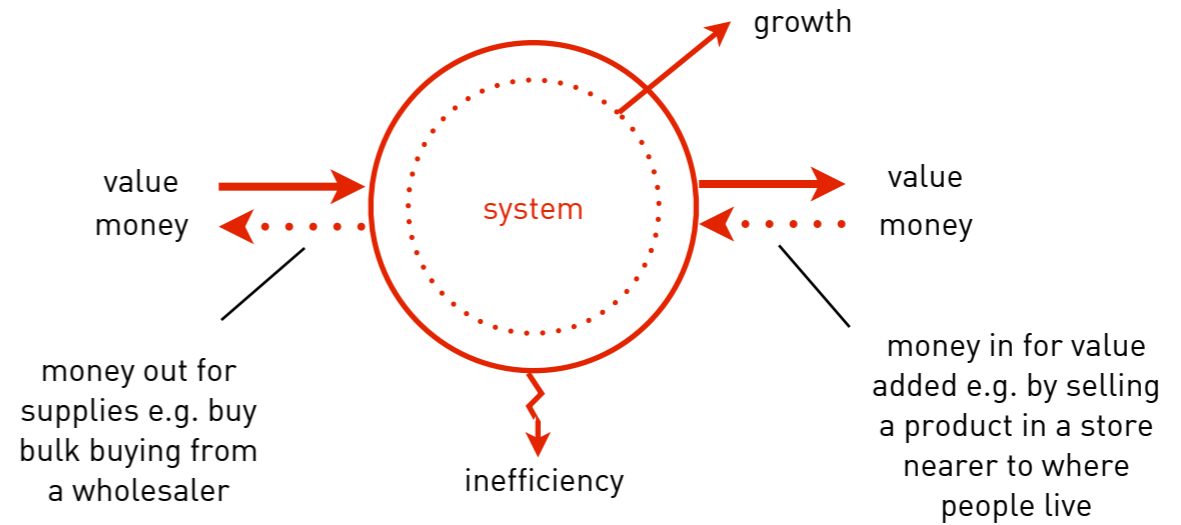
buying

money leaves the system in exchange for value entering it



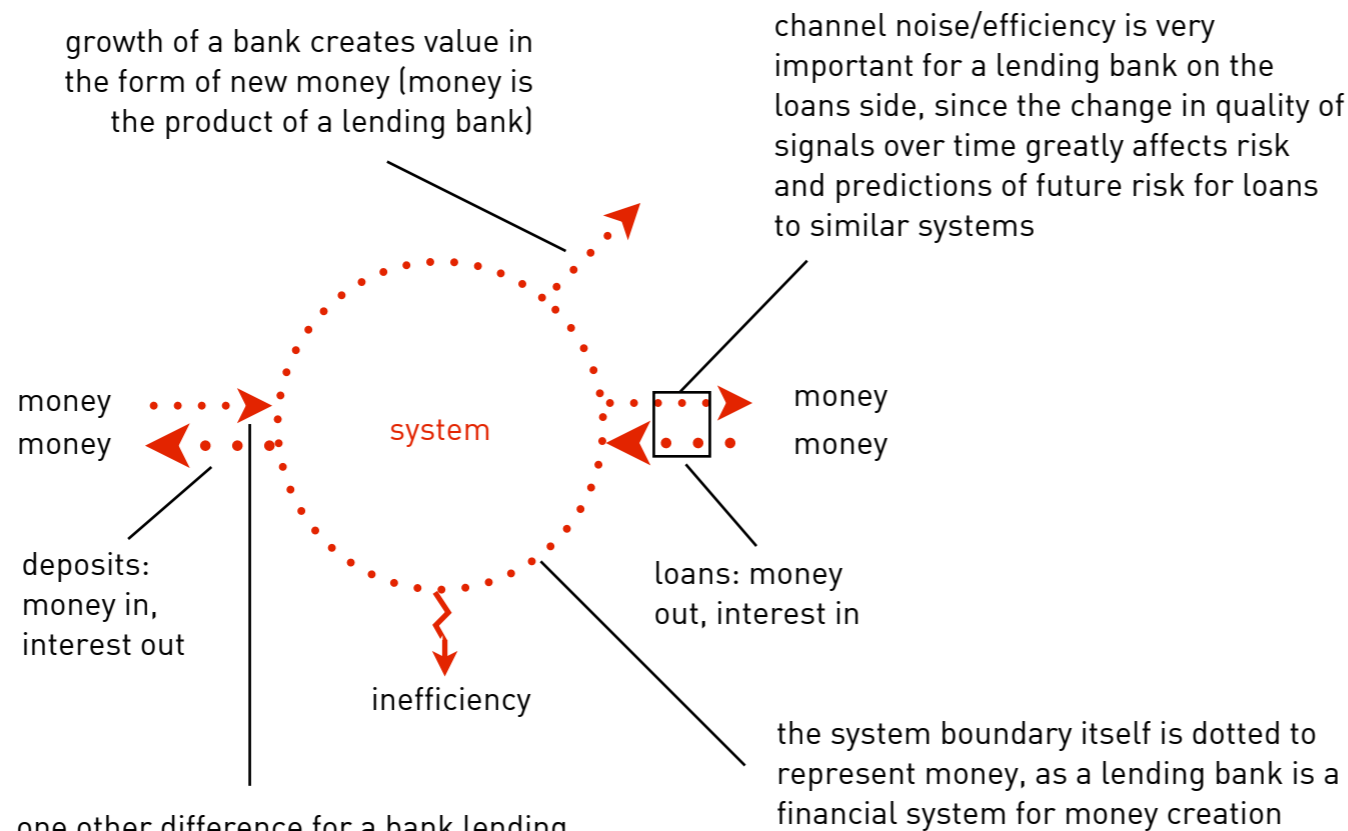
buying & selling

supplies are bought, value is added and they are sold for more money



Bank lending systems have
particular qualities.

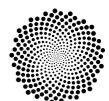




one other difference for a bank lending system is that money in (deposits) aren't payments but other people's assets to be managed (they are a liability from the bank's perspective). Because other people's assets are stored within a bank system (as liabilities) and because a bank's assets are the future promise of value created over time in other systems, a lending bank is a form of virtual system whose assets and liabilities are future promises fulfilled via risk data. It is for this reason that bank lending systems (or similar financial services systems, where appropriate) are signified by dotted lines.

Bank lending is a special case of transactional system, where all of the value can be predictively quantitatively measured (i.e. is money), except risk. Risk is the likelihood of disruption of the input channel of a loan over time. The channel is disrupted if the system at the other end of it shrinks too quickly and is in danger of failing, in which case its outputs are unstable and therefore 'noisy'. For this reason, banking risk can be considered as noise in a channel increasing over time.

Since money is fungible it can be thought of as an uncollapsed barter transaction (all transactions across multiple systems can eventually be viewed as a single barter via intermediate monetary transactions, when one thing of value is exchanged for another thing of value. This is why the money arrows are dotted and why a banking system is dotted. Banking is more about facilitating other systems and links between them through re-routing and inflating money supply through loans which are a multiple of a bank's own capital and other people's capital, in the form of deposits.



Charitable transaction benefits are best seen at the level of the overall parent system.

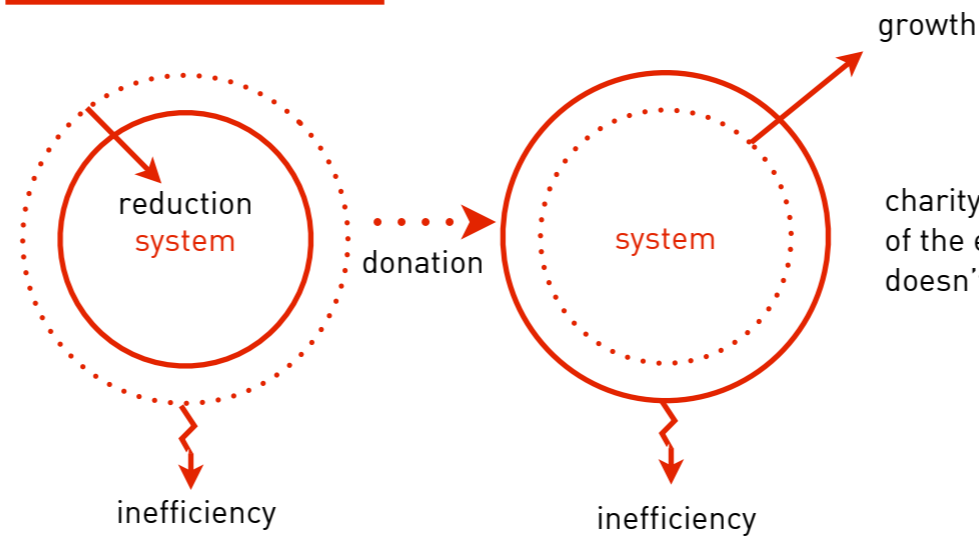


charitable transactions
helping, giving, collaborating

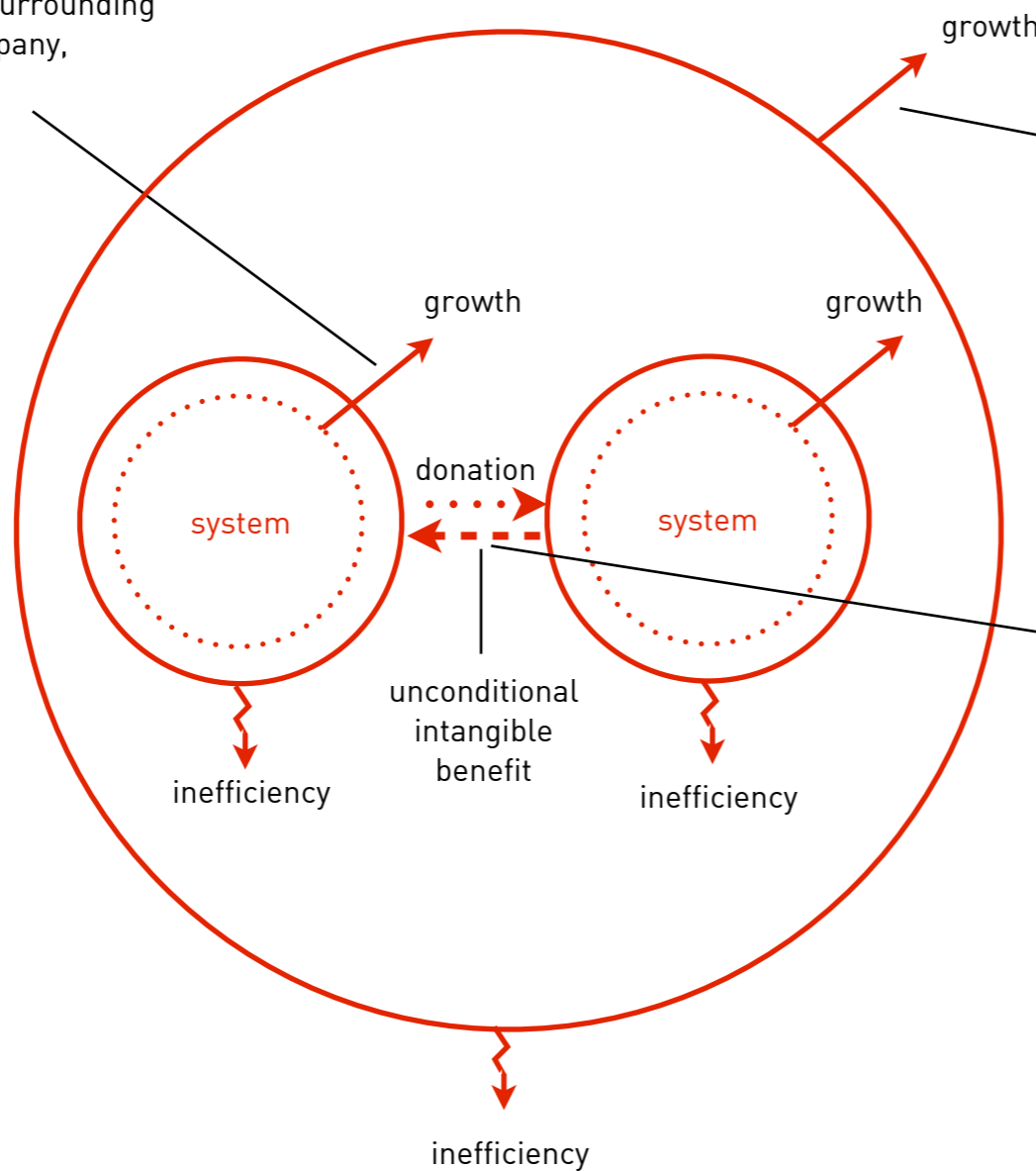
zero sum view

non zero sum,
empathy based view

note that the growth arrow is solid (value not money) therefore there is potential growth for a donor if it increases wellbeing both in terms of short term feeling, but tangible benefits from having improved the surrounding system (family, group, company, environment)

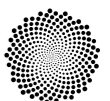


charity without considering the wider impact of the environment and mutual empathy doesn't account for the benefits to the donor



because the increase in wellbeing increases the growth of the parent system (which is the environment of the donor system), it's not a 'zero sum game' and the donor system benefits vicariously from the recipient's growth.

here, charity can be considered as a form of unconditional barter, the value reward is not a contractual obligation of the recipient (dashed line), but a natural byproduct of doing something useful.

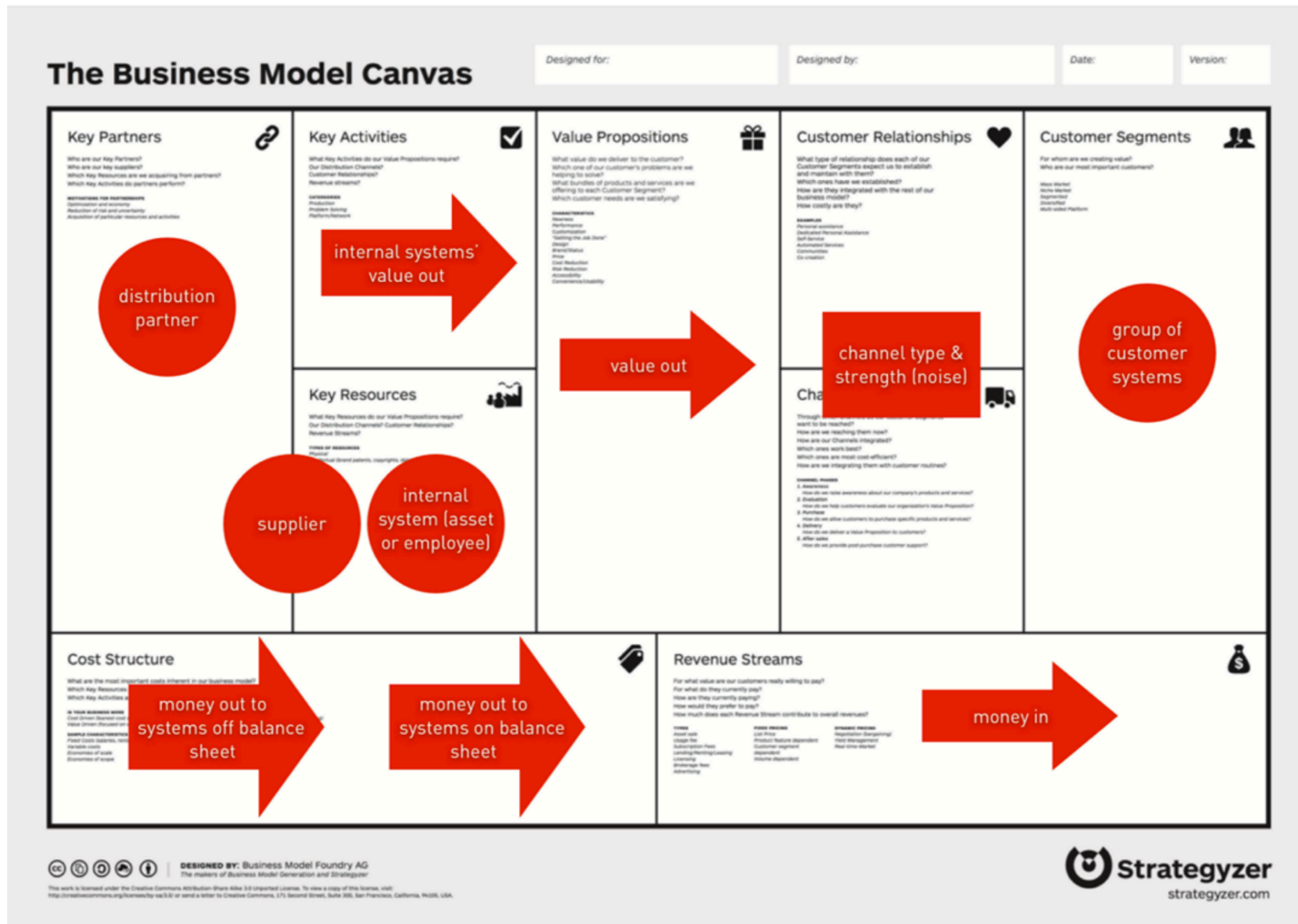


The interaction of a business with suppliers and customers (as described in standard tools used by entrepreneurs, such as the Business Model Canvas) can be represented by joining system modules together, via their input/output pairs.

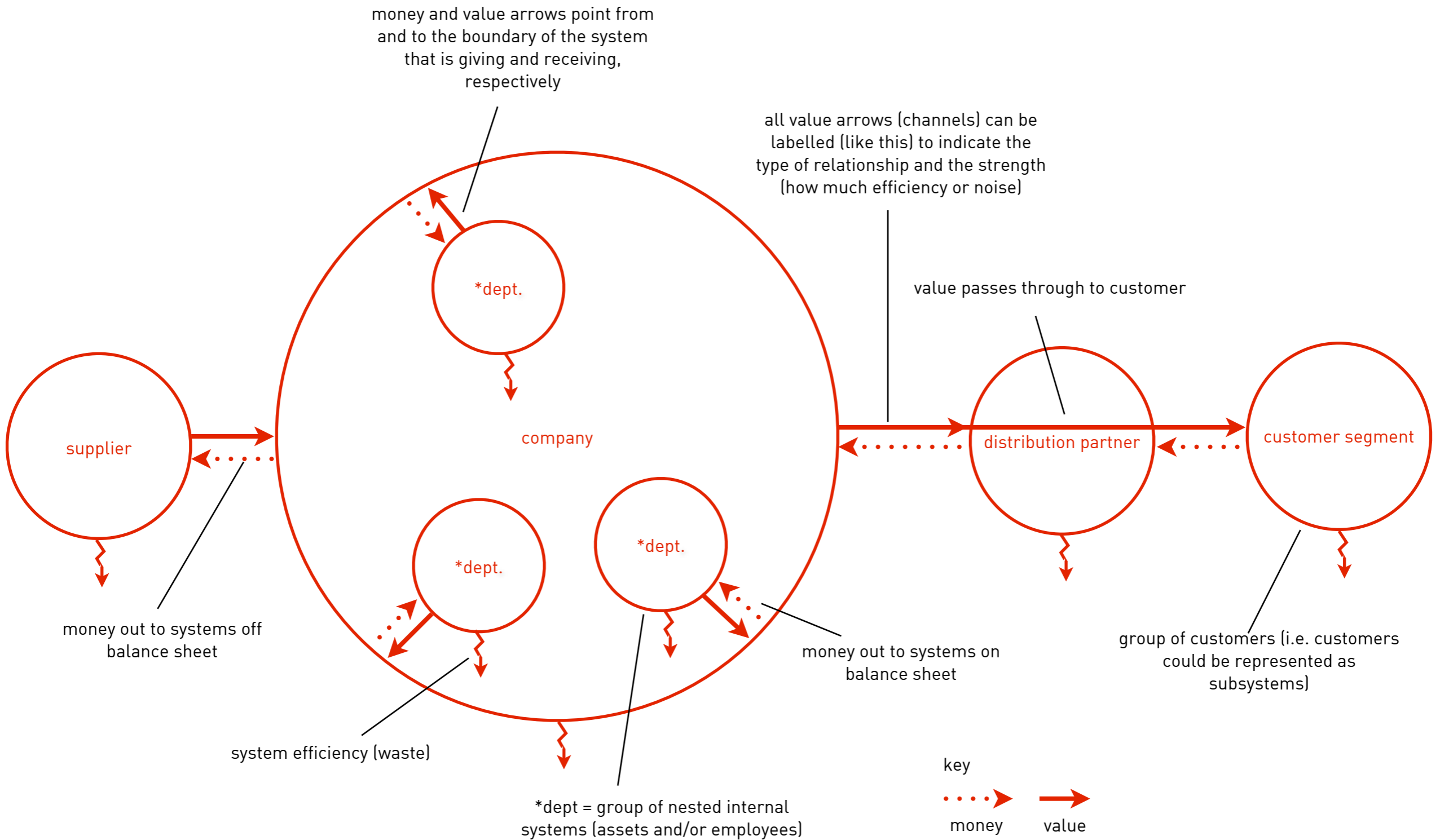


business model canvas elements mapped to systems and channel input/outputs

Components of the Business Model Canvas that can be represented by a system are indicated by circles and components that can be represented by input or output channels are indicated by arrows.



business model canvas
mapped to systems



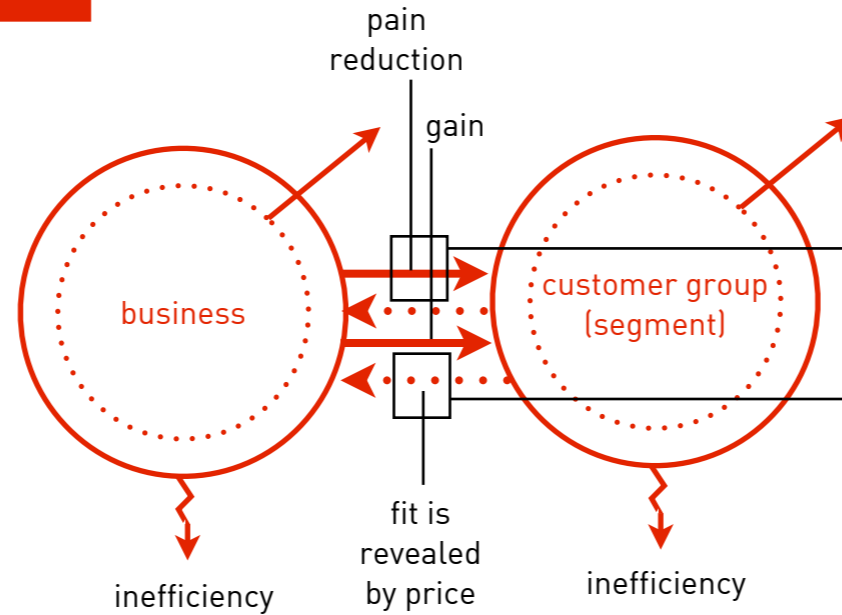
Similarly, a Human Centric Design view used by designers can be mapped to the same model as follows.

This is done by mapping to the The Value Proposition Canvas, an alternative to the Business Model Canvas but with a focus on creating value for customers rather than businesses.



system model of value proposition match

*some short term customer wants do not reflect long term gain (e.g. narcotics), this would be considered the same as noise - i.e. wrongly derived gains.

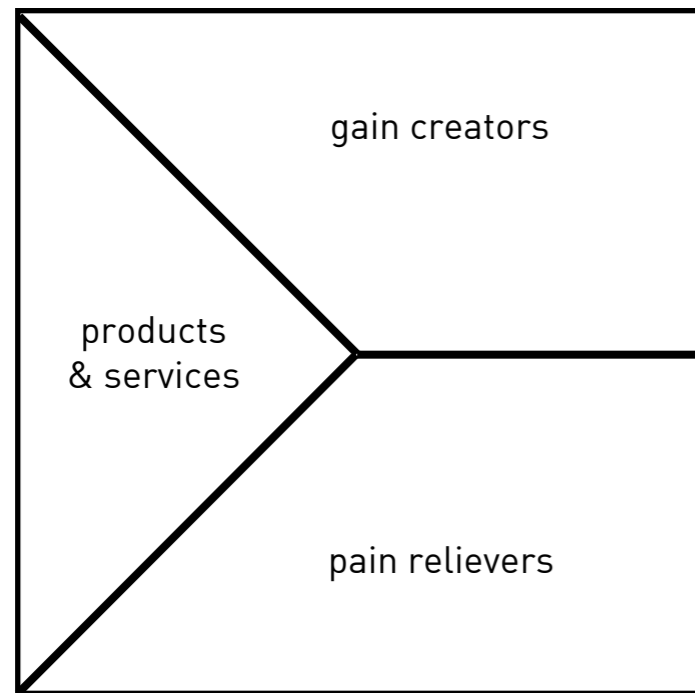


noise in this channel means product offering/marketing message not communicated

*noise in this channel means true customer gains/pains not properly derived

Value Proposition Map

The principal element of the value proposition map is simply separating out pains and gains.

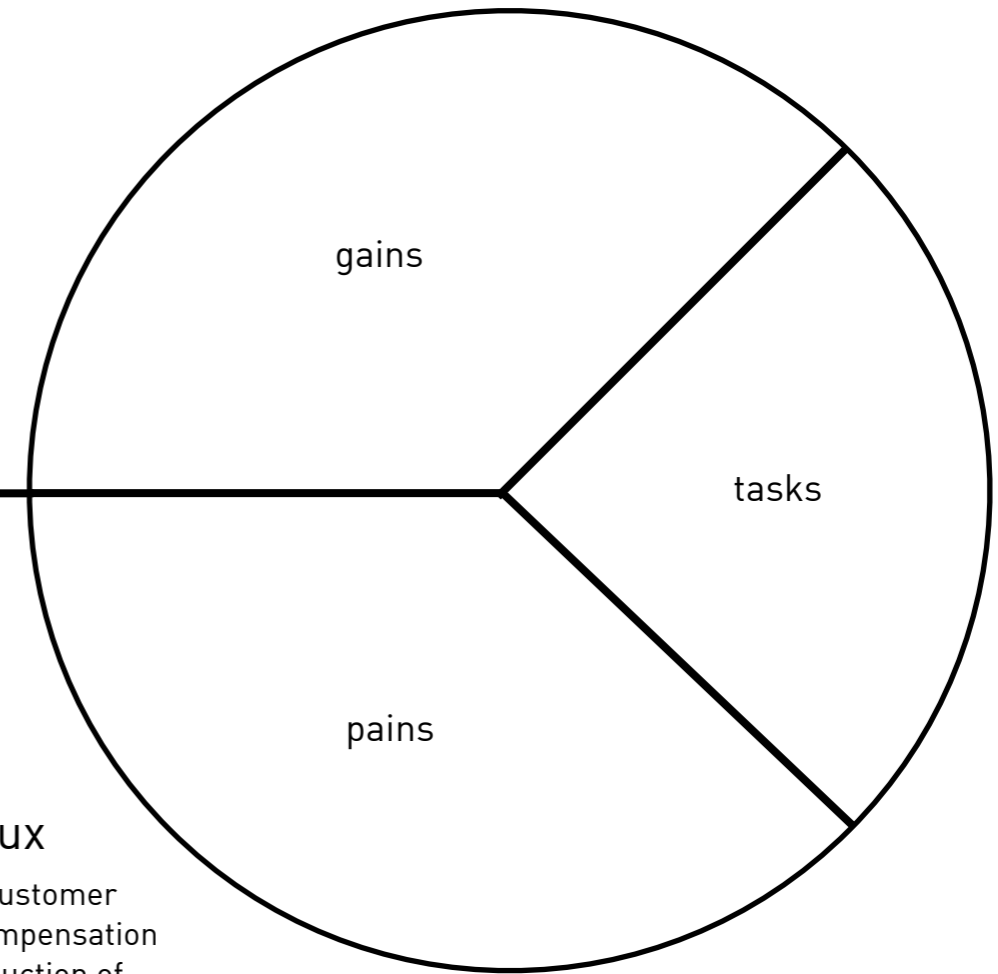


Value Map



value proposition redux

business sells product & service to customer segment (observed profile) based on compensation for net value gain (which includes reduction of pain). There is a fit if the propositions match



Customer Profile

The aim of this language is that by creating a universal model and interconnections for all types of system, they can be joined together and nested.

This allows for diagrammatic modeling of transfer of value within ecosystems as a whole and so helps link business models with product & service design to create **a tool for venture design.**

