How business can THRIVE

Measuring What Matters Most

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THRIVE Agenda

1. History, why, how, and what
2. Use cases for THRIVE
3. Theoretical underpinnings
4. Test drive THRIVE
5. Involvement with THRIVE project
6. Question & Answer session

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Donella Meadows

"Fostering a transition to sustainability will not be simple, because unsustainable behavior does not arise simply out of ignorance or irrationality or greed. Often it results from the collective consequences of rational well-intentioned decisions. People and organizations are caught up in systems, and complex social structures ranging from families and communities to corporations, governments and large-scale economies, that make it difficult or even impossible to act in ways that are fully responsible to all who are impacted in the present and the future. Most of us do not have the information, the resources or incentives for the freedom we need to live sustainably."

Why our Team?

We want to know what makes an enterprise successful

Passionate to help enterprises achieve sustainability

Research and investigate the link between business models and performance

Many fragmented approaches including several manual self-referential systems

Why THRIVE platform?

*Open source THRIVE platform - **T**he **H**olistic **R**egenerative **I**nnovative **V**alue **E**nterprise: re-integrates rather than re-invents*

Plethora of approaches developed to date, each featuring their own taxonomy, metrics, and methodology: THRIVE is agnostic

Systems thinking perspective, adopting a strong sustainability stance: largely know what is necessary and sufficient as informed by the transdisciplinary field of industrial ecology

Critical realist and quantitative view: norms, goals and (backcast) targets, metrics

We are in the web – like chess – we know the goal but not every move, only the rules of the game and the end game

We seek the holy-grail, what is the next big thing, what strategy or business model is going to lead us to be of value

How to THRIVE

Reasoned from first-principles; systems approach, strong sustainability stance

Perform sustainably scale-linked across every level

Multi-capital, context- and science-based, using commensurable formula engine

Set targets, formulate milestones, and backcast

What is THRIVE

Measure and guide enterprises towards sustainability: systemic orchestration

Reporting tool come predictive tool and indeed prescriptive

Supports first-order and second-order (meta-scale) metrics; on a commensurable scale

The best tool for measuring human impacts on the planet may be a dashboard of environmental indicators, not a footprint

Use cases

Encourages enterprises to do good to do well in their pursuit for a competitive advantage

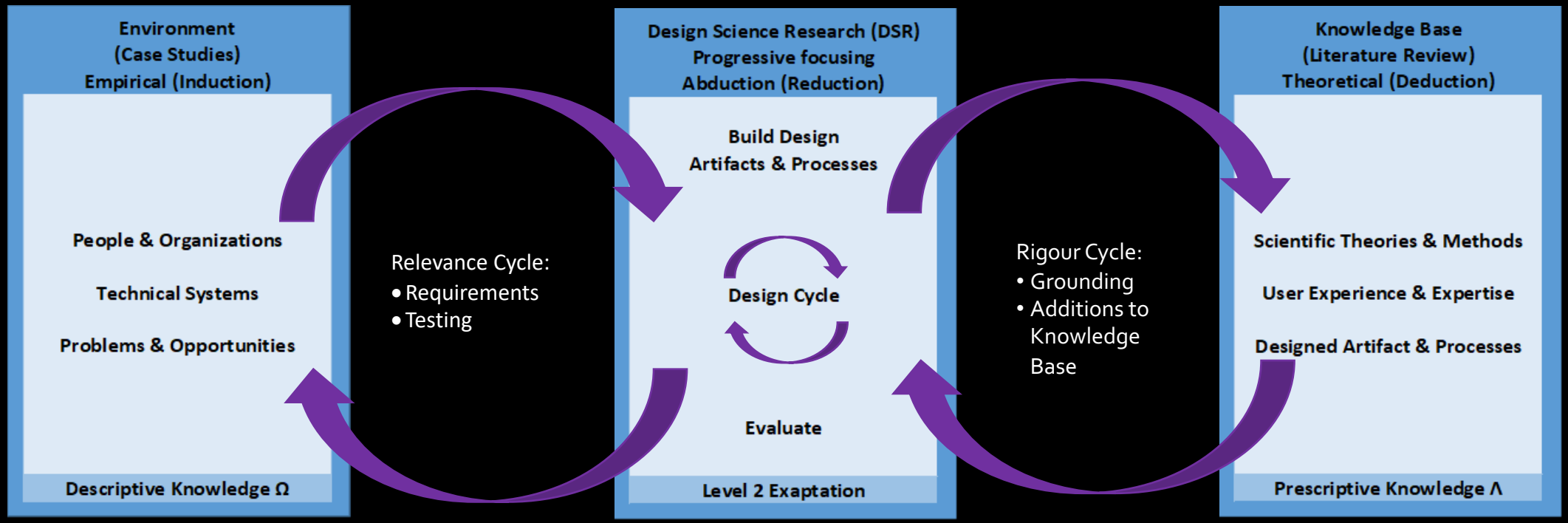
Provides business analysts with tools to guide enterprise strategies

Assists researchers to analyze trends and effectiveness of business models for sustainability

Allows governments to forecast the effects of regulatory or legislative actions

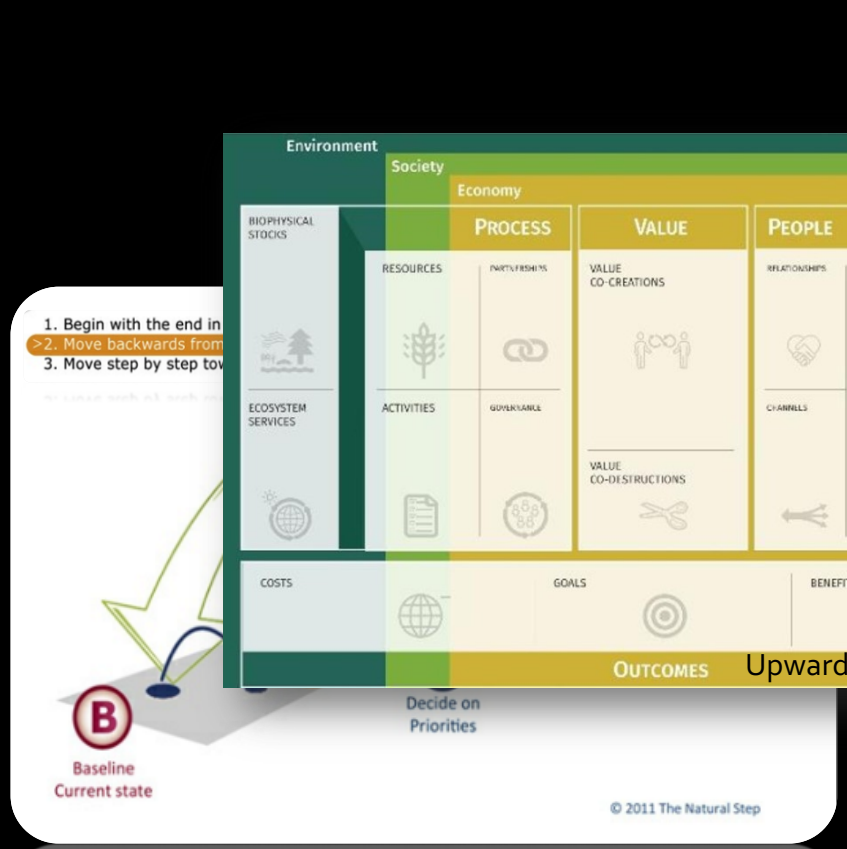
Empowers individuals, consumers like you and me, to actively stimulate competition among enterprises by voting with our wallets

Systemic Design Science Research approach

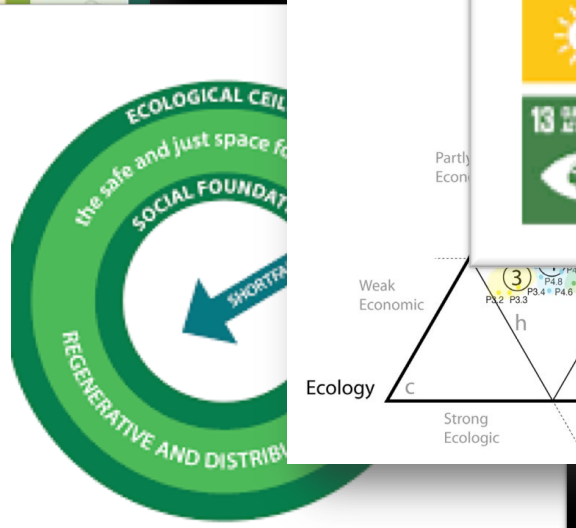


Research cycles adapted from Hevner (2007)

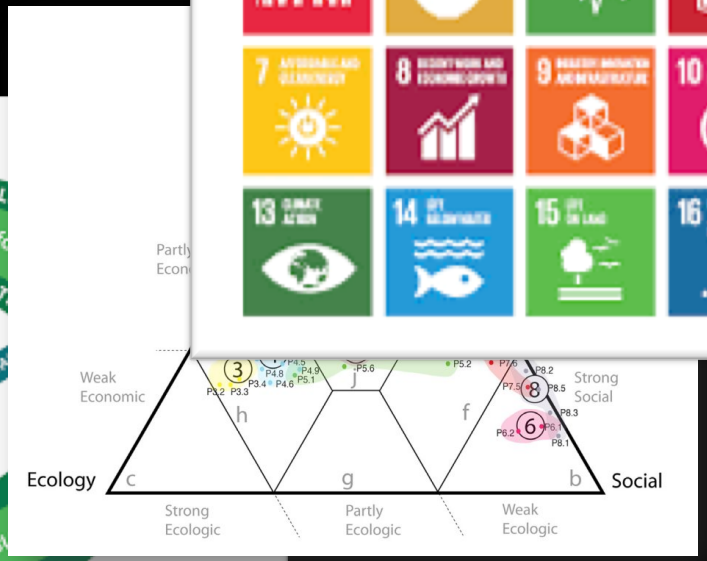
281 frameworks, methodologies, approaches and cumulative studies reviewed



Upward & Jon



Kate Raworth, Donut Economics (2012)



Framework for Strategic Sustainable Development

Based on design science approach, engineering the future we aspire towards

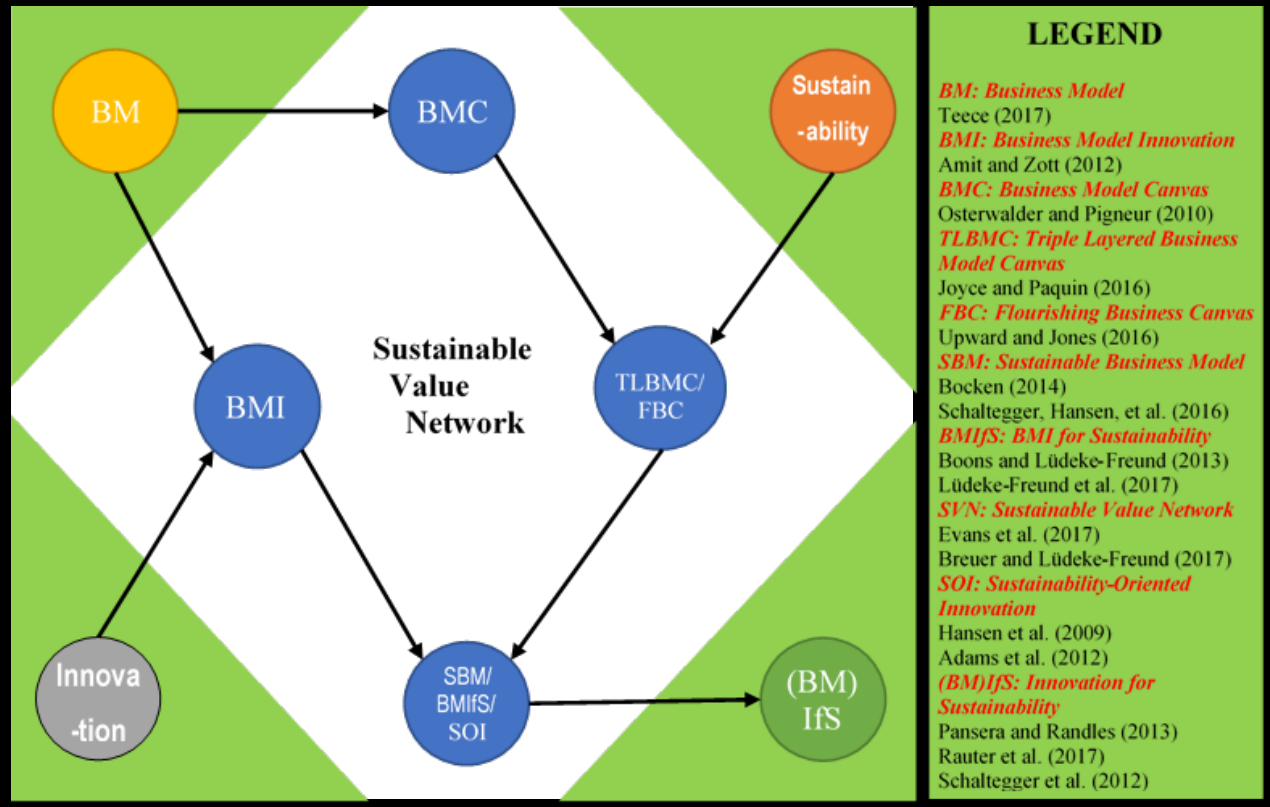
Guided by the social and natural sciences; as identified by 50+ prominent experts worldwide

System conditions; design constraints; KPIs

Backcast from Sustainability Principles

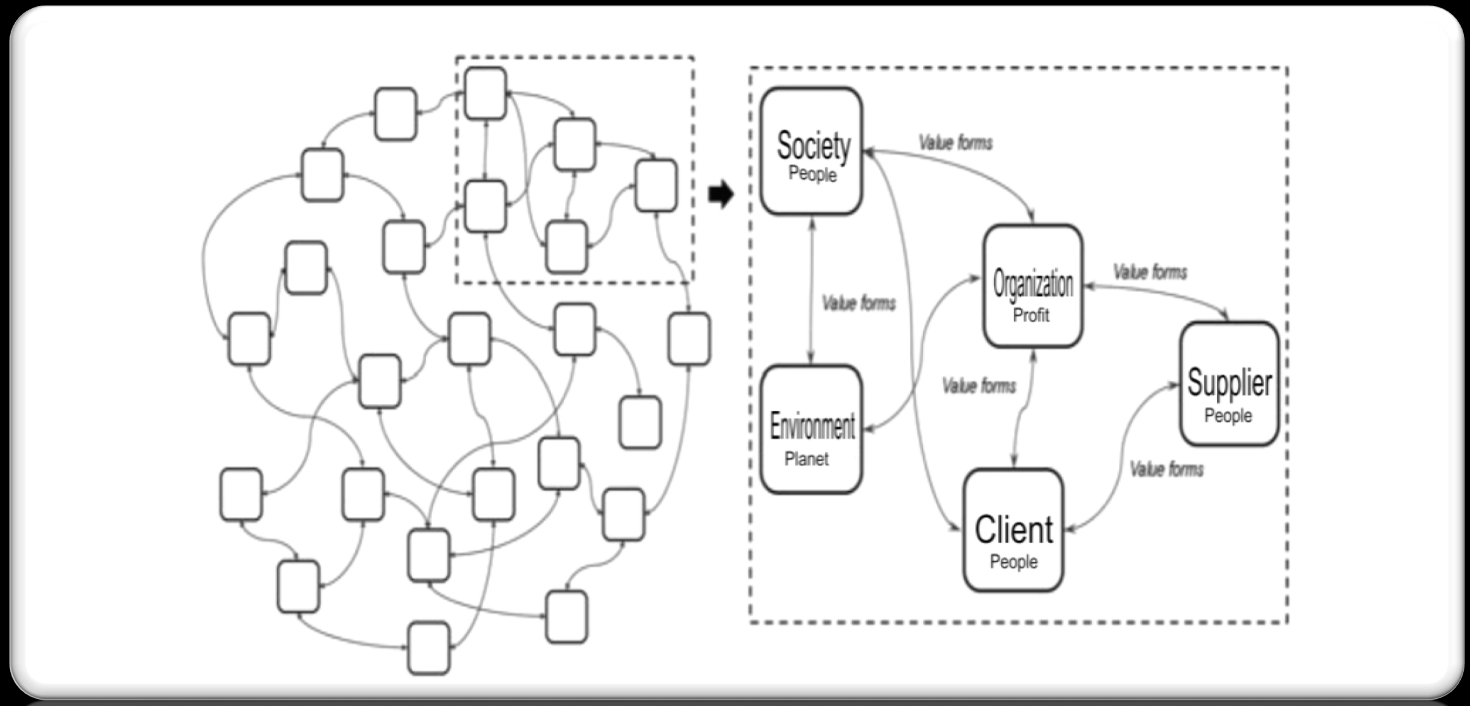
Evolution of the BM concept

Business Model Theoretical frameworks Appendix C, Towards a Unified Theory for a Sustainable Business Innovation Strategy, Fedeli (2017)



Sustainable Value Network

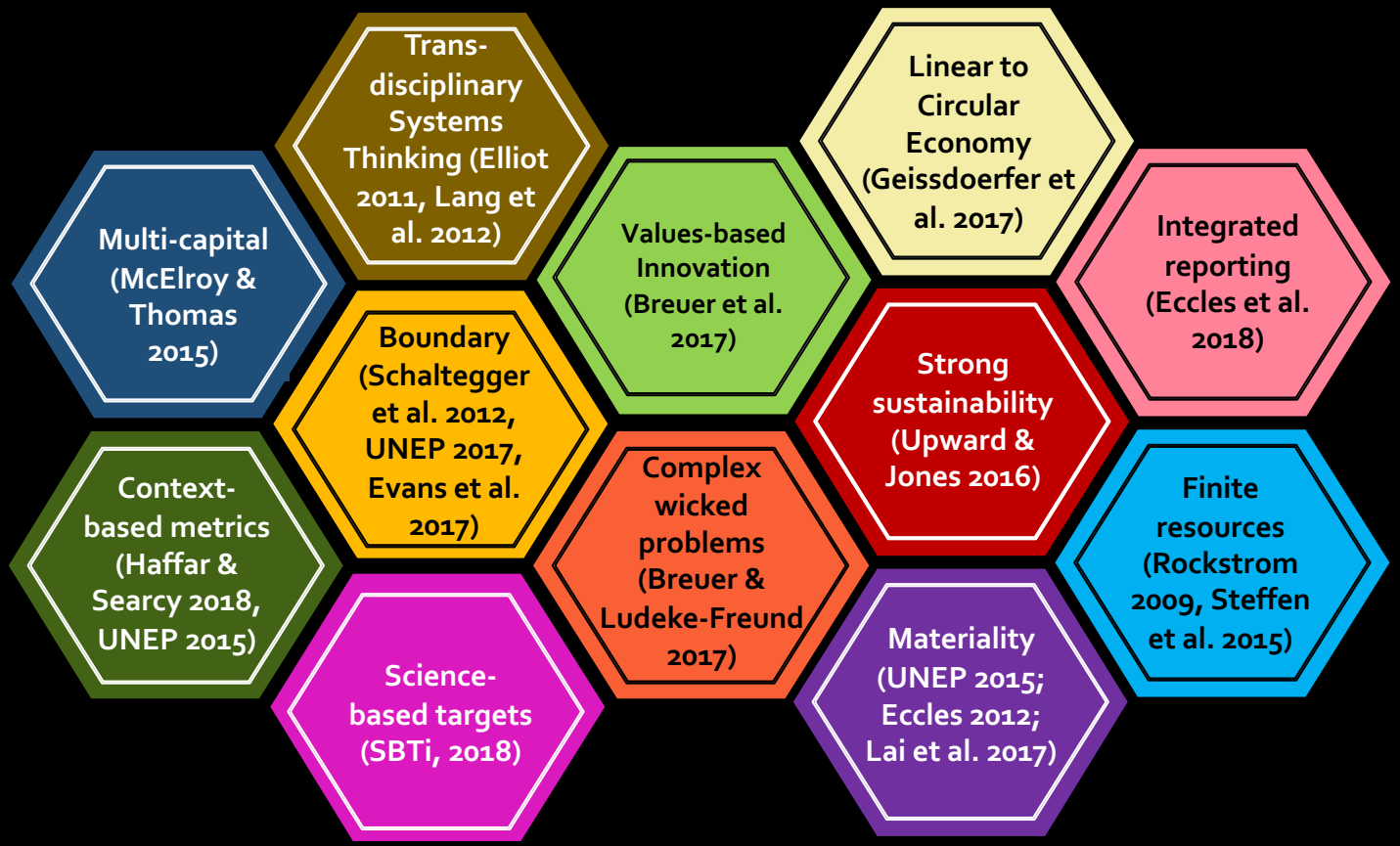
Source: Business Model Innovation for Sustainability: Towards a Unified Perspective for Creation of Sustainable Business Models, Evans et al. (2017).



Foundational Focus Factors

Source: Assessing Corporate Sustainability Performance of Business Models. How business model innovation drives a successful sustainable business strategy? Fedeli (2018).

Presented at the 3rd New Business Model Conference in Sofia, Bulgaria in (2018).



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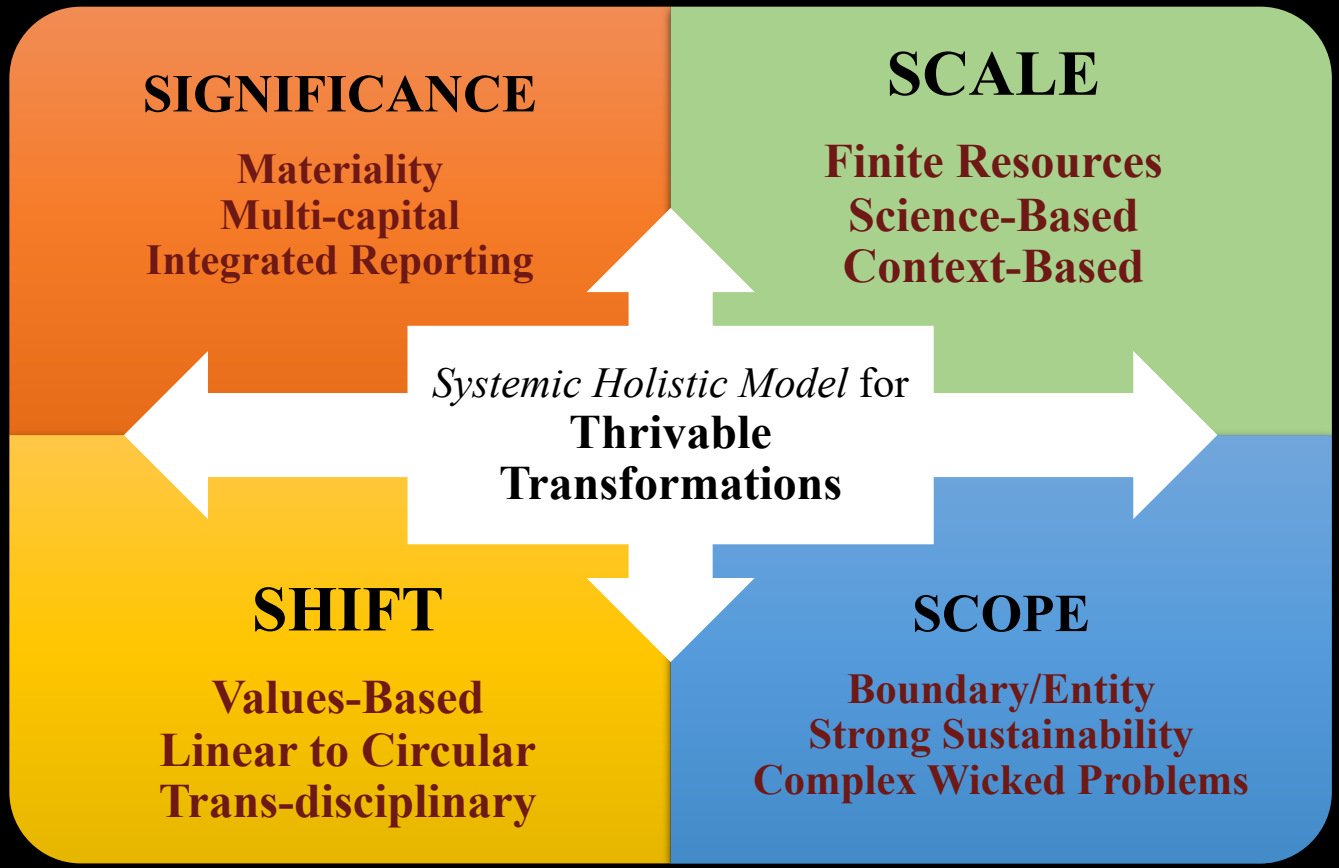
Systemic Holistic Model



Source: Foundational Focus Factors For Strong Sustainability Using Information Systems: The Trajectory Towards Thrivable Transformations, Fedeli & Shrestha (2020).

THRIVE Platform

THRIVE Platform

Sustainability Performance Scorecard

THRIVE Sustainability Performance Scorecard is a tool which allows enterprises to identify their performance relative to their peers. It allows consumers to evaluate which enterprises perform best. Through the SPS Dashboard, engine weights and controls may be manipulated and resulting effects visualized in ciambella charts. For more information visit http://strive2thrive.earth

Contextualized

Supports global thresholds, ceilings and floors, and allocations.

Reports

Report dissections include by material topic, enterprise, region, industry or year-on-year.

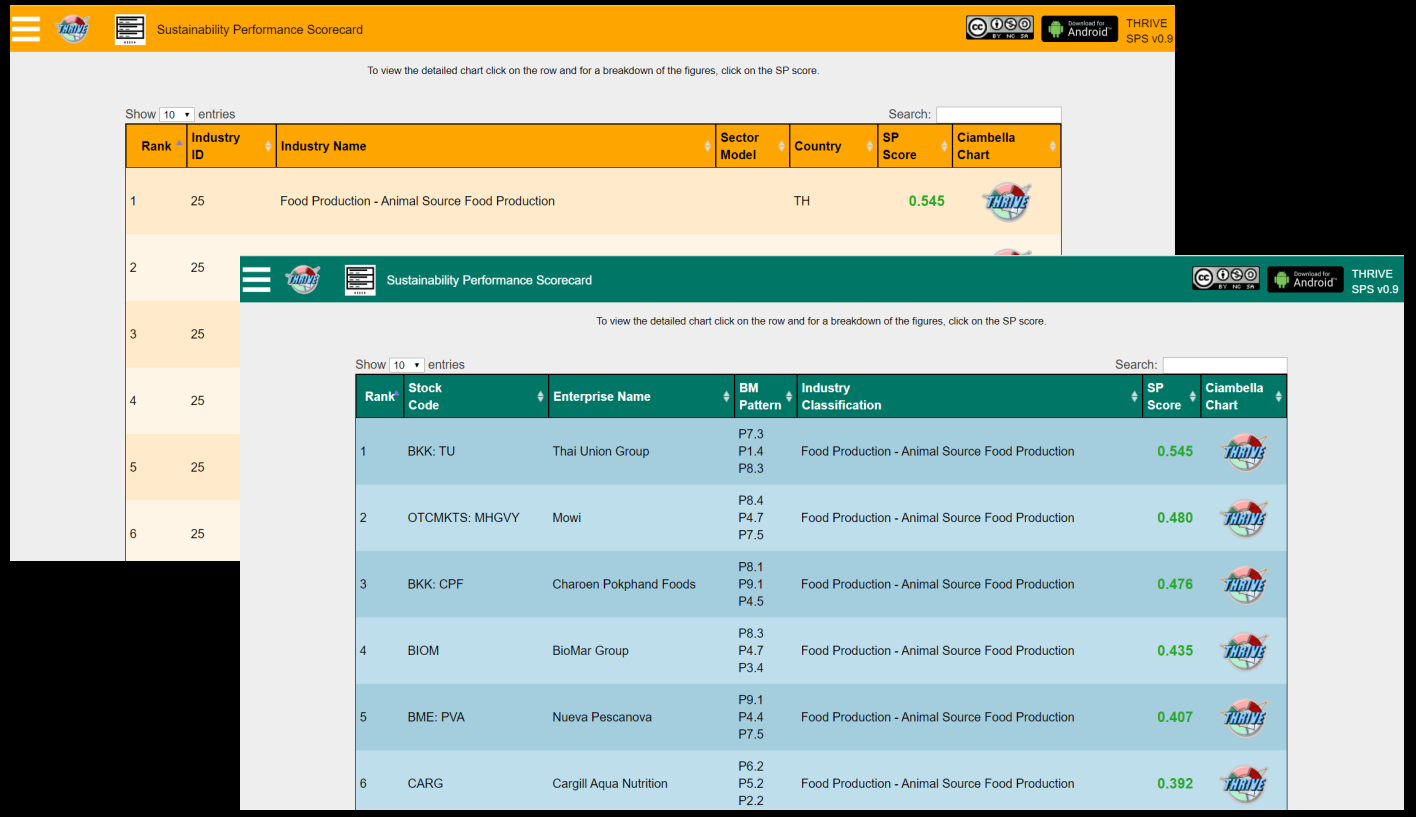
Integrated

Integrates with public corporate sustainability reports, CDP reports and GFN databases.

Visualizations

Instant visuals dissected by chosen category displayed in Ciambella Charts.

Sustainability Performance Scorecard (SPS)

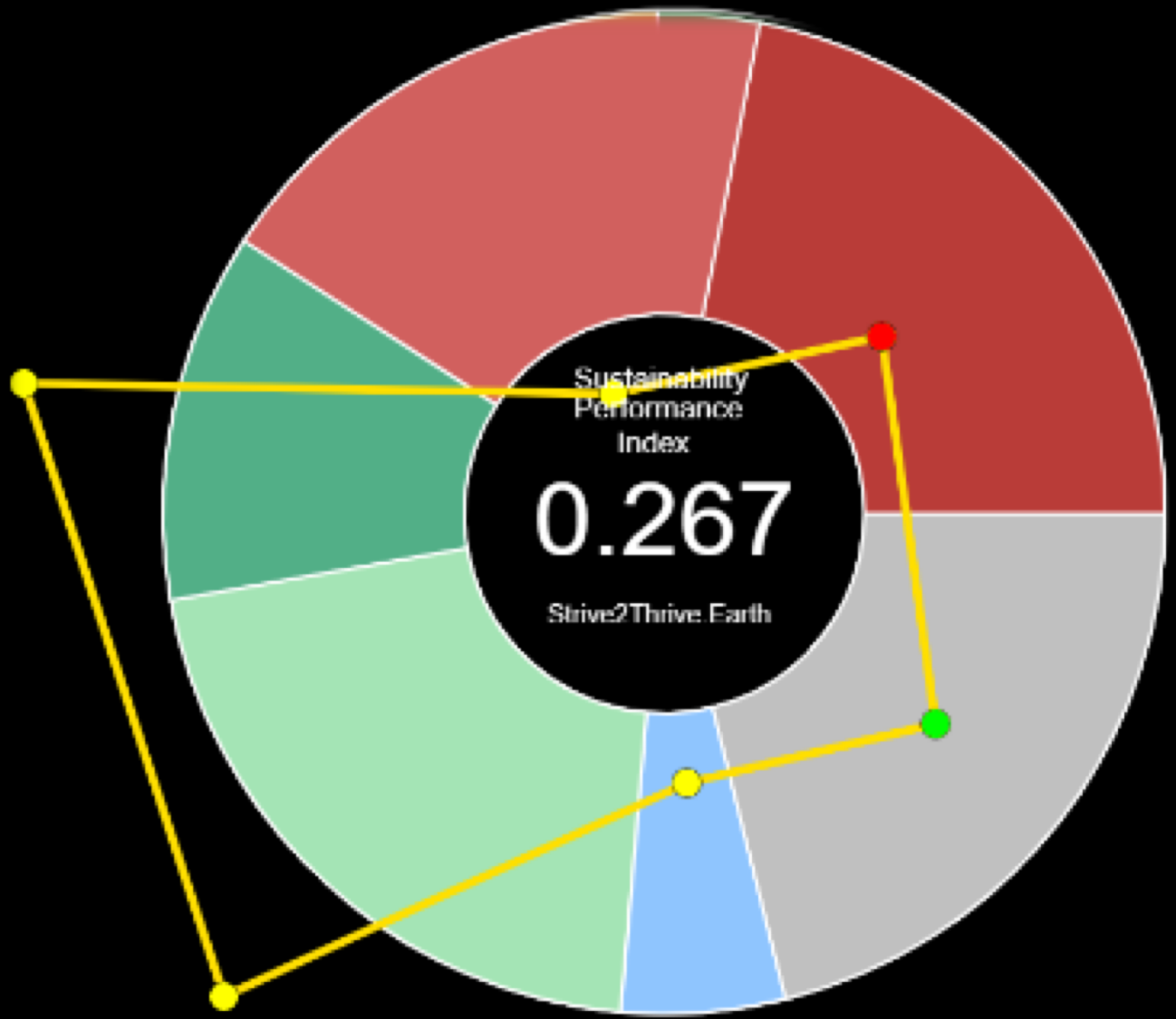


- *Ranked performance scorecard*
- *Showing performance over time*
- *Choice of formula engine*
- *Choice of classification*
- *Supports multiple entity levels*
- *Shows contextualized values*
- *Shows associated entity model*

Ciambella Charts

Instant visual representation:

- *Thresholds (inner & outer)*
- *Impact*
- *Allocation*
- *Performance*
- *Drill down for details*
- *Ciambella Chart Infographic*



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FORMULA ENGINE

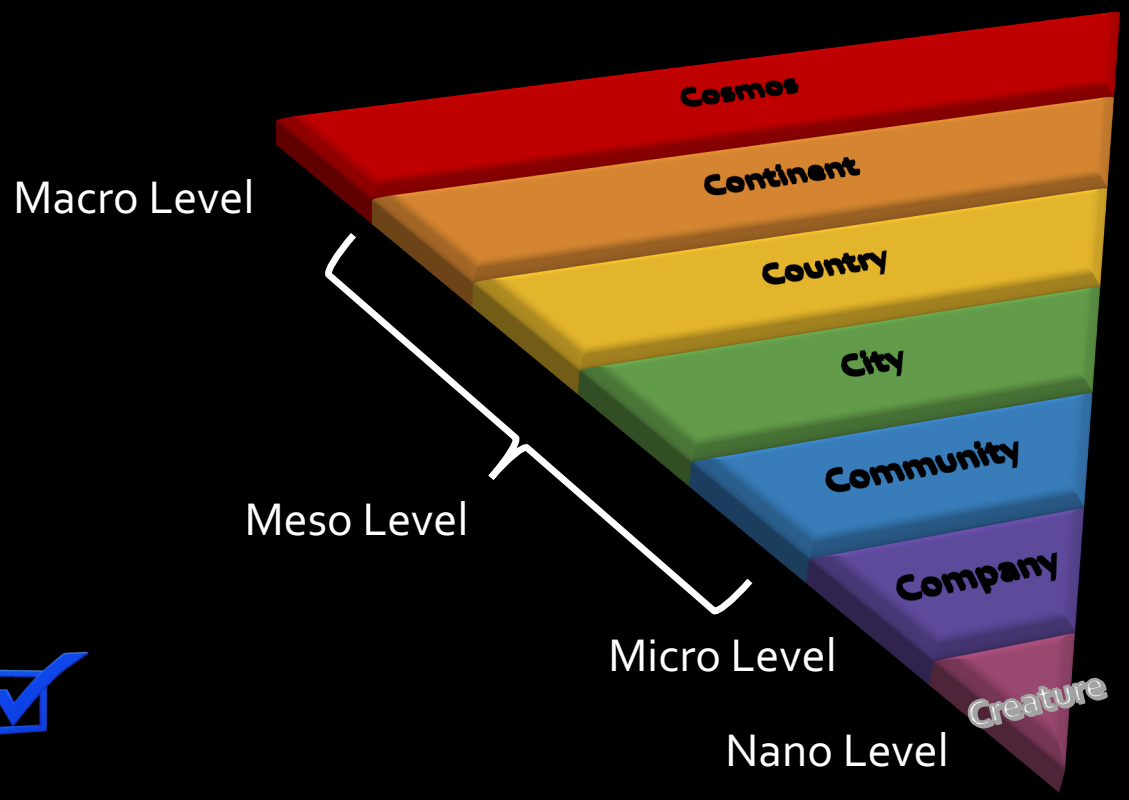
User-selectable, measuring strong sustainability, a.k.a. well-being enforcing non-complementarity

Implements scale-linking at each stratified level, with individually defined formula at each level

Plug n' play non-compensatory composite index incorporating uncertainty/ sensitivity analysis

```
WITH calculated_weight AS (SELECT DISTINCT class_id, (CASE WHEN theme_id IS NULL THEN weight /
count ELSE 1 / SUM(weight) OVER (PARTITION BY class_id) END) AS normalized_sum FROM (SELECT
class_id,theme_id,COUNT(weight), weight FROM ( SELECT weight.class_id, weight.topic_id, theme_id,
weight FROM weight JOIN ( SELECT DISTINCT class_id, topic_id, theme_id FROM impact) AS
class_t_theme ON weight.class_id = class_t_theme.class_id AND weight.topic_id =
class_t_theme.topic_id ORDER BY weight.topic_id) AS weight_with_topic GROUP BY weight, class_id,
theme_id) AS temp), weight AS ( SELECT weight.class_id, weight.topic_id, (weight * normalized_sum) AS
[redacted]
sub_theme_id IS NULL THEN allocation / (MAX(allocation) OVER (partition BY
min_max_impact.enterprise_id, min_max_impact.date_time_id, min_max_impact.class_id)) ELSE
allocation * sum_allocation END) AS allocation FROM allocation_result JOIN min_max_impact ON
allocation_result.enterprise_id = min_max_impact.enterprise_id AND allocation_result.date_time_id =
min_max_impact.date_time_id), spi_values AS ( SELECT date_time_id, count_id_result.theme_id,
(impact * allocation / ( CASE WHEN count_id_result.theme_id IS NULL THEN 1 ELSE Count(impact)
OVER( partition BY count_id_result.theme_id, enterprise_id, date_time_id) END)) AS spi, enterprise_id,
normalized_alloc_result.topic_id FROM ( SELECT topic_id , class_id, theme_id FROM material_topic) AS
count_id_result JOIN normalized_alloc_result ON normalized_alloc_result.topic_id =
count_id_result.topic_id AND normalized_alloc_result.class_id = count_id_result.class_id)
```

Scale-linking and context-based



- *Navigating across the 7Cs*
- *Each level usurps the one below it*
- *Stratification or granularity*
- *Necessary for context-based metrics*
- *Seven scales from Nano to Macro*
- *Sustainability quotient*

EXAMPLE USING WBA SEAFOOD STEWARDSHIP INDEX

1	Thai Union Group	2.70 / 5
2	Mowi	2.42 / 5
3	Charoen Pokphand Foods	2.32 / 5
4	BioMar Group	2.22 / 5
5	Nueva Pescanova	2.04 / 5
6	Cargill Aqua Nutrition	1.87 / 5
7	Nutreco (Skretting)	1.86 / 5
8	Mitsubishi Corporation	1.79 / 5
9	Parlevliet & Van der Plas	1.72 / 5
10	Austevoll Seafood ASA	1.70 / 5

Score summary

Thai Union Group ranks 1st in the benchmark, reflecting its leading performance across all measurement areas. The group tops the benchmark in three areas: governance and management of stewardship practices, due to its sustainability strategy's detailed targets and robust reporting; ecosystems, with a wide array of individual and multi-stakeholder activities to improve fishing practices; and local communities, as it promotes various opportunities for local livelihood development. The group also has a strong performance in stewardship of the supply chain, specifically around traceability, sourcing and its environmental footprint. While Thai Union Group also demonstrates strong commitments towards human and labor rights, there is a room for improvement for addressing potential adverse human rights impacts.

RANKING POSITION: #1 / 30

TOTAL SCORE: 2.70 / 5

MEASUREMENT AREA	SCORE (0-5)	RANK (0-30)
Governance and management of stewardship practices	0.46 / 0.50	#1
Stewardship of the supply chain	0.66 / 1.00	#3
Ecosystems	0.89 / 1.75	#1
Human rights and working conditions	0.48 / 1.25	#2
Local communities	0.21 / 0.50	#1

INDICATOR CATEGORIES	SCORE (0-5)
Commitment	3.11 / 5
Performance	2.52 / 5
Transparency	2.71 / 5

https://seafood.worldbenchmarkingalliance.org/companies/thai-union-group/

THRIVE Platform Roadmap

THRIVE v1.0

Measure entity performance

Categorize on entity model

Scale-link using formula engine

Historical data with static snapshots

THRIVE v2.0

Global thresholds and allocations

Predictive analytics for backcasting

Interactive real-time dashboard

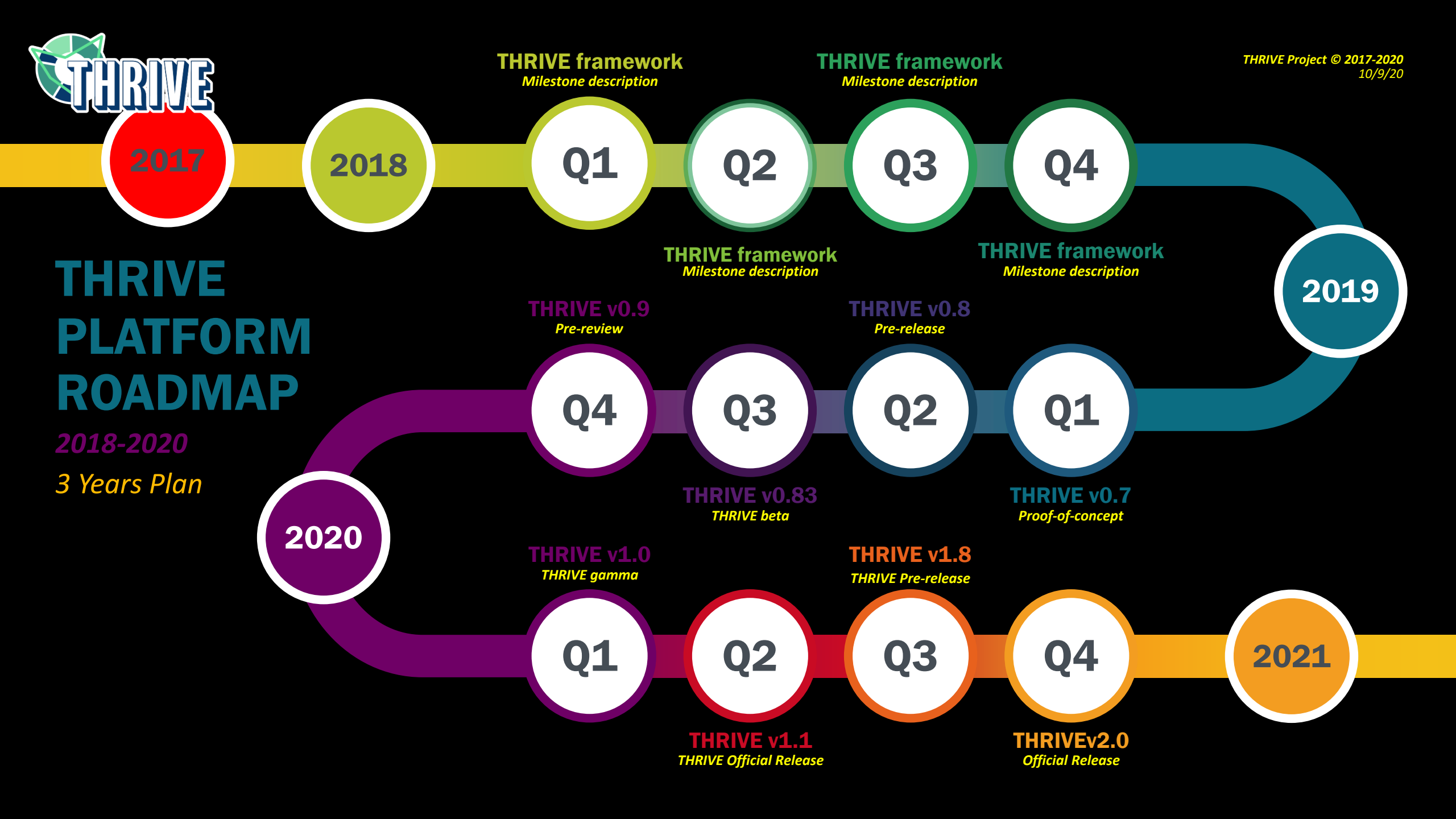
THRIVE v3.0

Multi-user, scalable, distributed

Holochain: smart social contracts (DLT)

Gamification of service

Individual level implementation


THRIVE
2017
2018
Q1
THRIVE framework
Milestone description
Q2
THRIVE framework
Milestone description
Q3
THRIVE framework
Milestone description
Q4
THRIVE framework
Milestone description
2019
THRIVE PLATFORM ROADMAP
2018-2020
3 Years Plan
THRIVE Project © 2017-2020
10/9/20
Q4
THRIVE v0.9
Pre-review
Q3
THRIVE v0.83
THRIVE beta
Q2
THRIVE v0.8
Pre-release
Q1
THRIVE v0.7
Proof-of-concept
2020
Q1
THRIVE v1.0
THRIVE gamma
Q2
THRIVE v1.1
THRIVE Official Release
Q3
THRIVE v1.8
THRIVE Pre-release
Q4
THRIVEv2.0
Official Release
2021

FINAL THOUGHTS

Contribute to the solution, to a resilient, restorative and regenerative smart economy. There is no sustainable business in an unsustainable world. How do we encourage enterprises to be a force for good?

Foster competition, yet at the same time encouraging collaboration for the common good. As we know true collaboration among a wide range of partners is complex, requiring a willingness to declare goals before you have a plan, thus inviting co-creation.

THRIVE is not just another measuring tool. It is a ***holistic systems simulation model*** *and framework built on first principles employing science-based targets based on what the sciences tells us is necessary and sufficient to ensure a thrivable society and prosperous future for all.*

Thank You

- The Team
- Follow me Linkedin
- Contributions by reviewers: Register
- Forthcoming paper together with my colleague, currently under review by a major European conference group, for 2020, titled:
  FOUNDATIONAL FOCUS FACTORS FOR STRONG SUSTAINABILITY USING INFORMATION SYSTEMS: THE TRAJECTORY TOWARDS THRIVABLE TRANSFORMATIONS