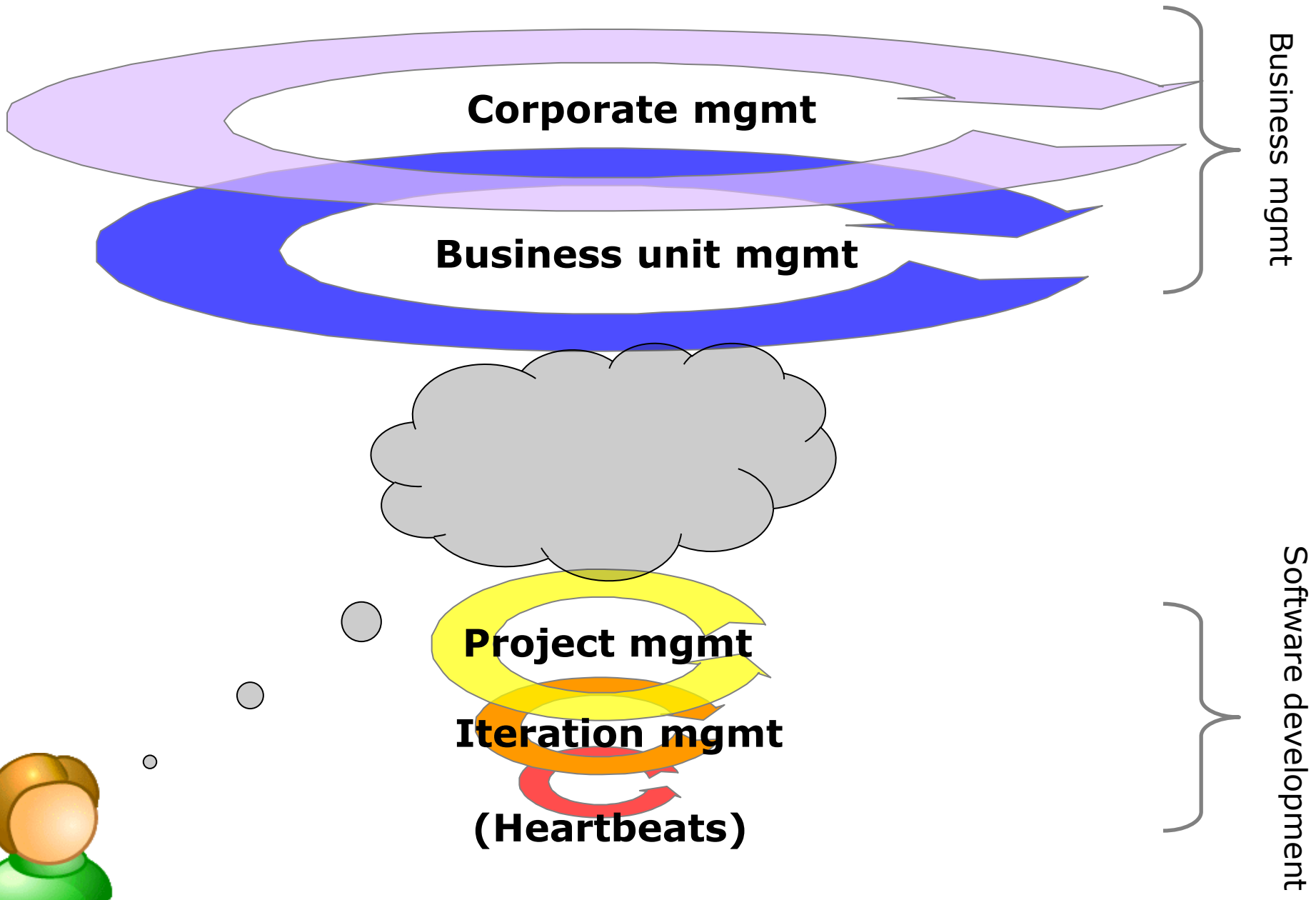




Towards a Conceptual Framework and Tool Support for Linking Long Term Product and Business Planning with Agile Software Development

Jarno Vähäniitty & Kristian Rautiainen

How to link decision-making?



Roadmapping?

**Multi-project
mgmt?**

Project mgmt

Iteration mgmt

Heartbeats

(e.g. Daily Scrums)

Software development



**Why
those?**

Ongoing:

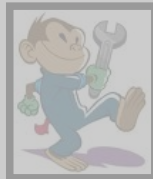
**#1: AgileFant
(major release)**

1.0

**#2: HyperCalendar
(minor release)**

1.0

**#3: Solving a
problem at
customer A**



**Delivery for
customer C**

**In
sales:**



**#4: AgileFant
Roadmapping
support for
Customer B**



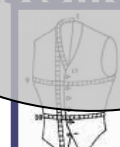
**#5: Server
optimization**



**#6: Training at
customer B**



**Advanced user
mgmt for
Customer C**



**#7: 2 lectures at
the University
(upcoming)**



(None ongoing)



**hold, inactive
or waiting for
launch:**

GUI facelift



**Warranty repairs
for customer B**



**Why
now?**

**Which of these are
really important?**



**"The product owner
handles it"**



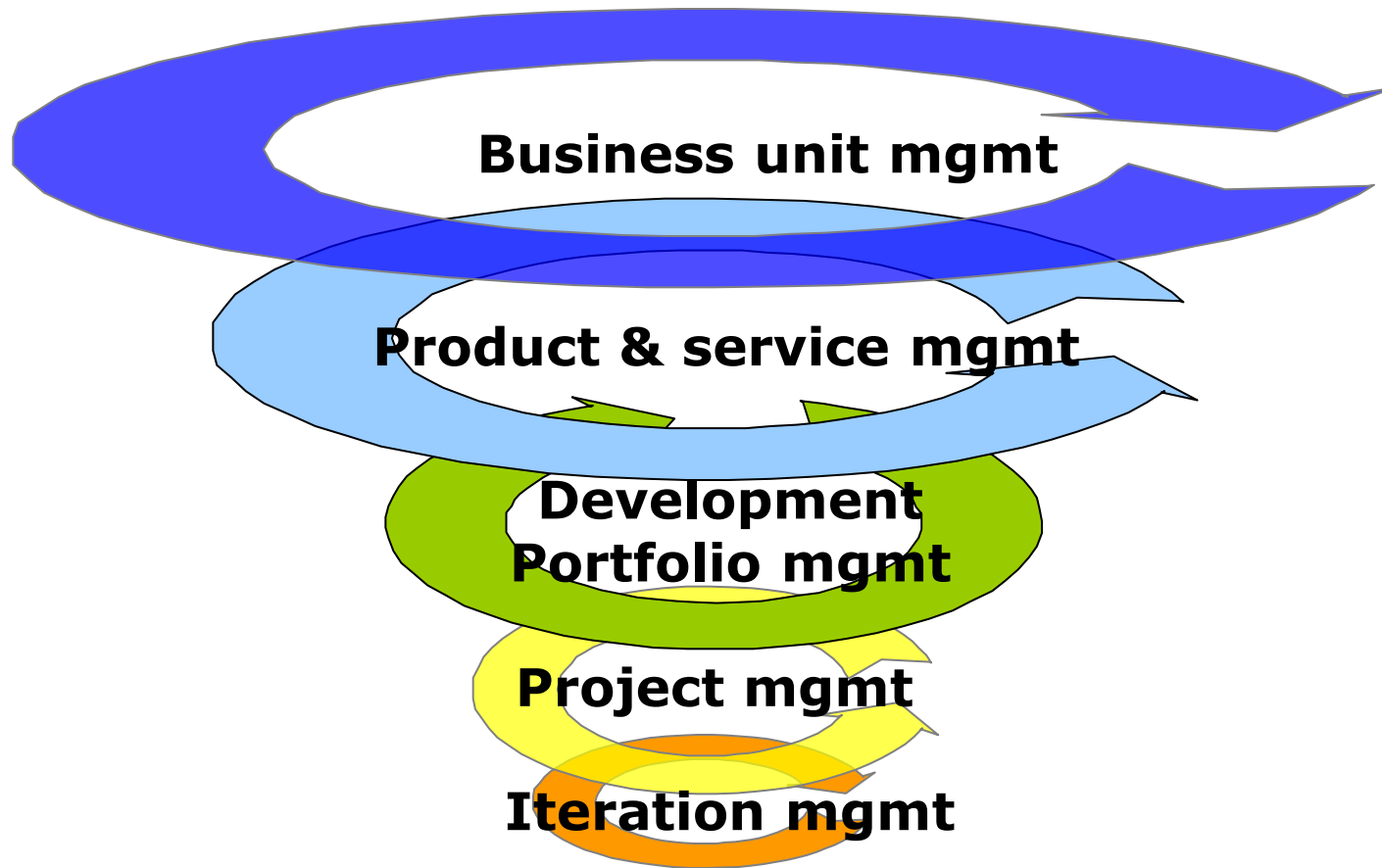
**Easier said
than done?**

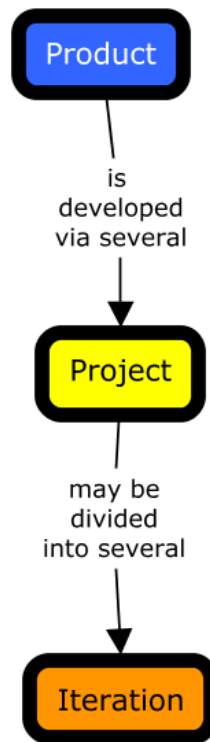


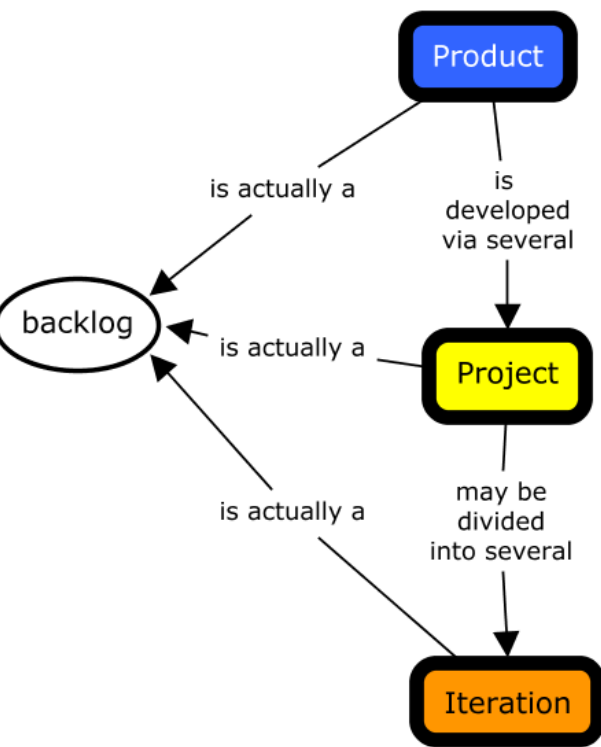
Needed:

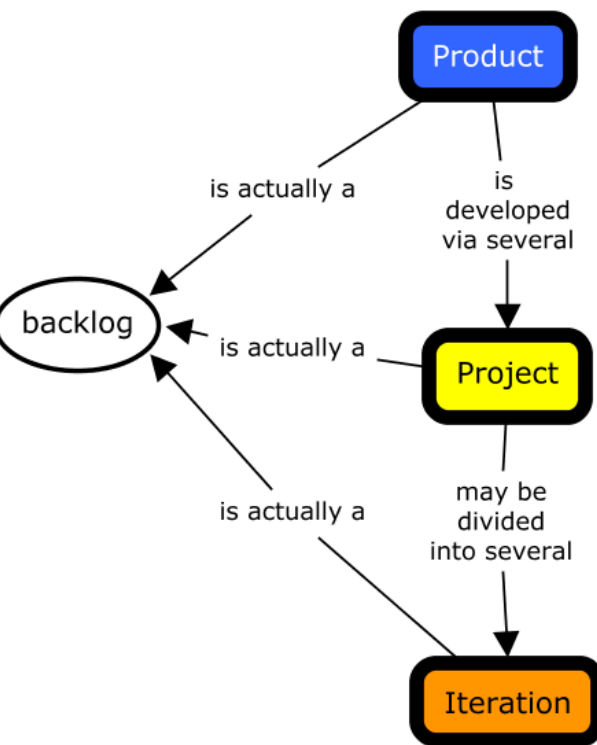
**a common language for analyzing,
communicating and discussing the links
between long-term business, product
and release planning and agile
software development**

Framework Levels









Epic

Backlog
item

Example types of development activity:

(Vähäniitty 2005a)

Achilles

Product
development

Customer-
specific
development
projects
(not product related)

Developer rental

Hector

Platform
development

Application
development
(release-based)

Application
development
(customer-triggered)

Research-like
development

Customer
deliveries and
installations

Consulting

Odysseus

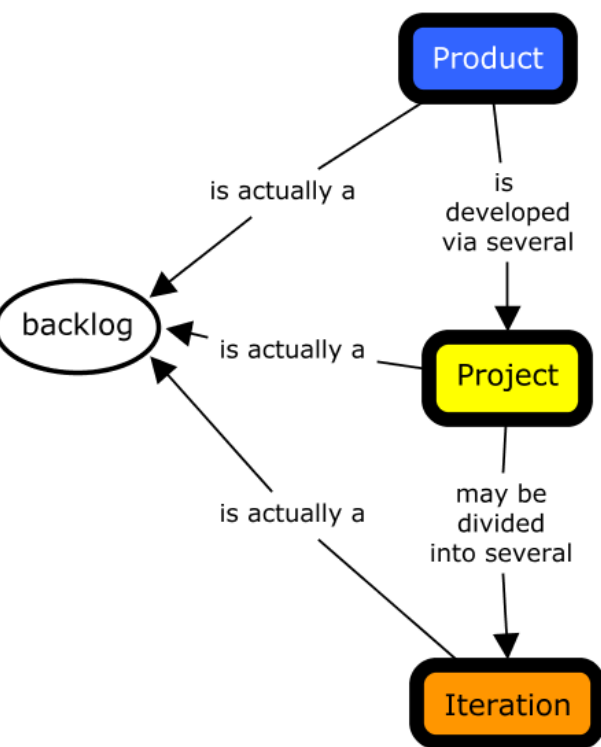
Product
development
(release-based)

Product
development
(customer-triggered)

Technology
development

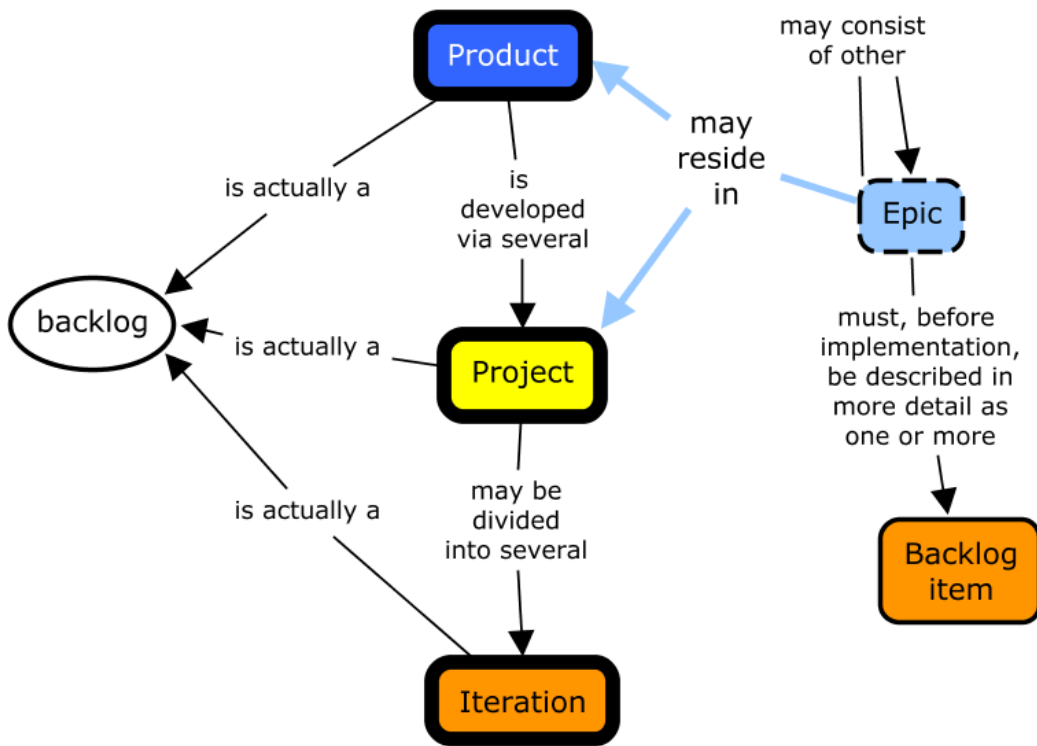
Delivery and installation
projects

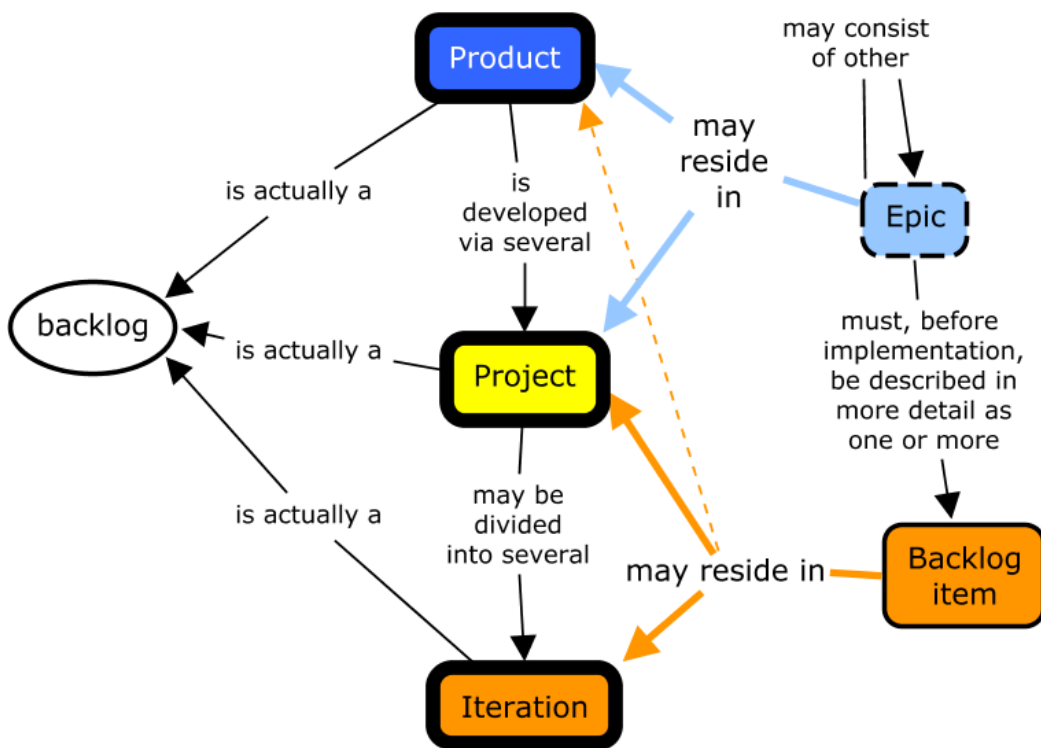
Sales support

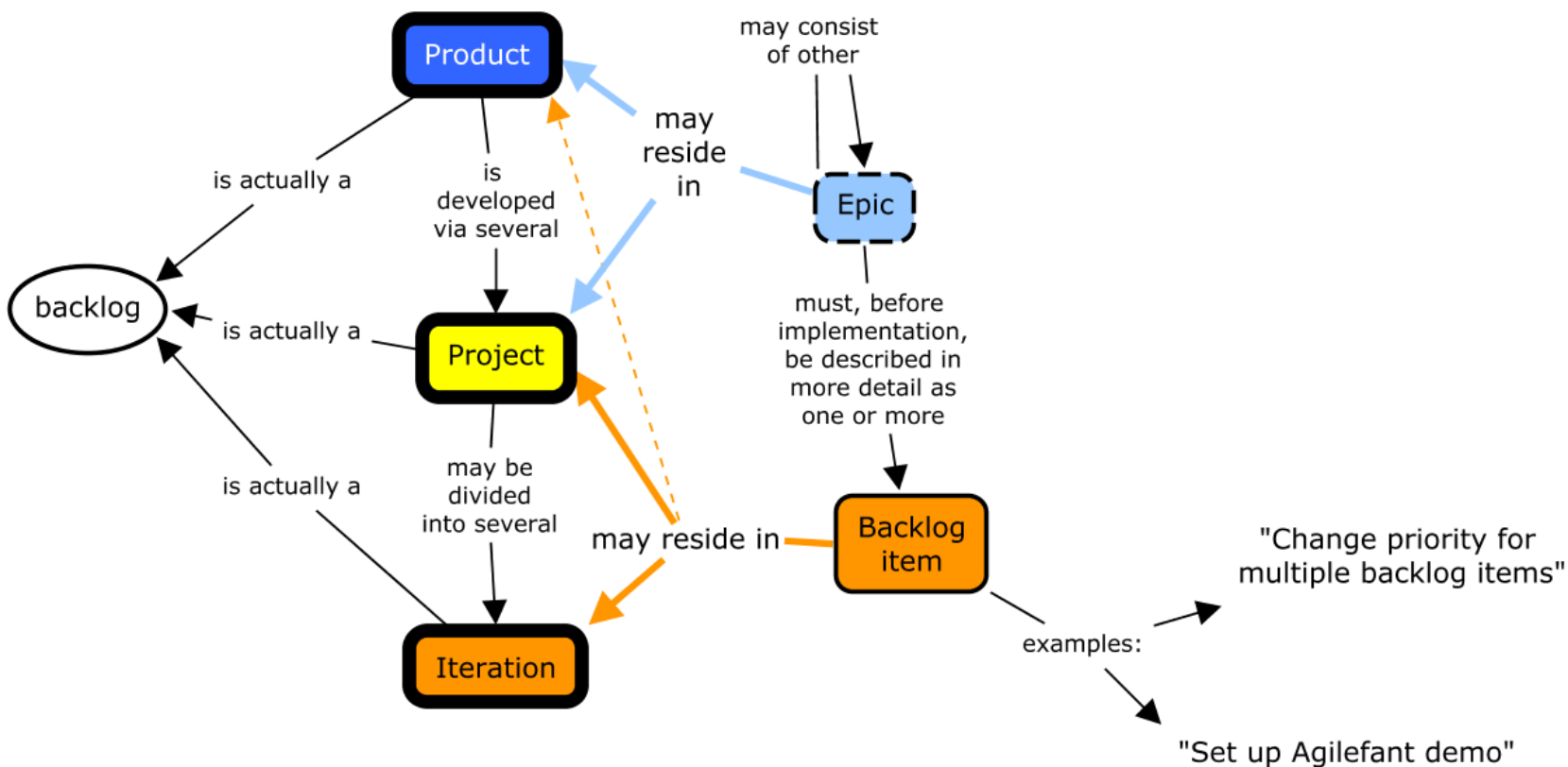


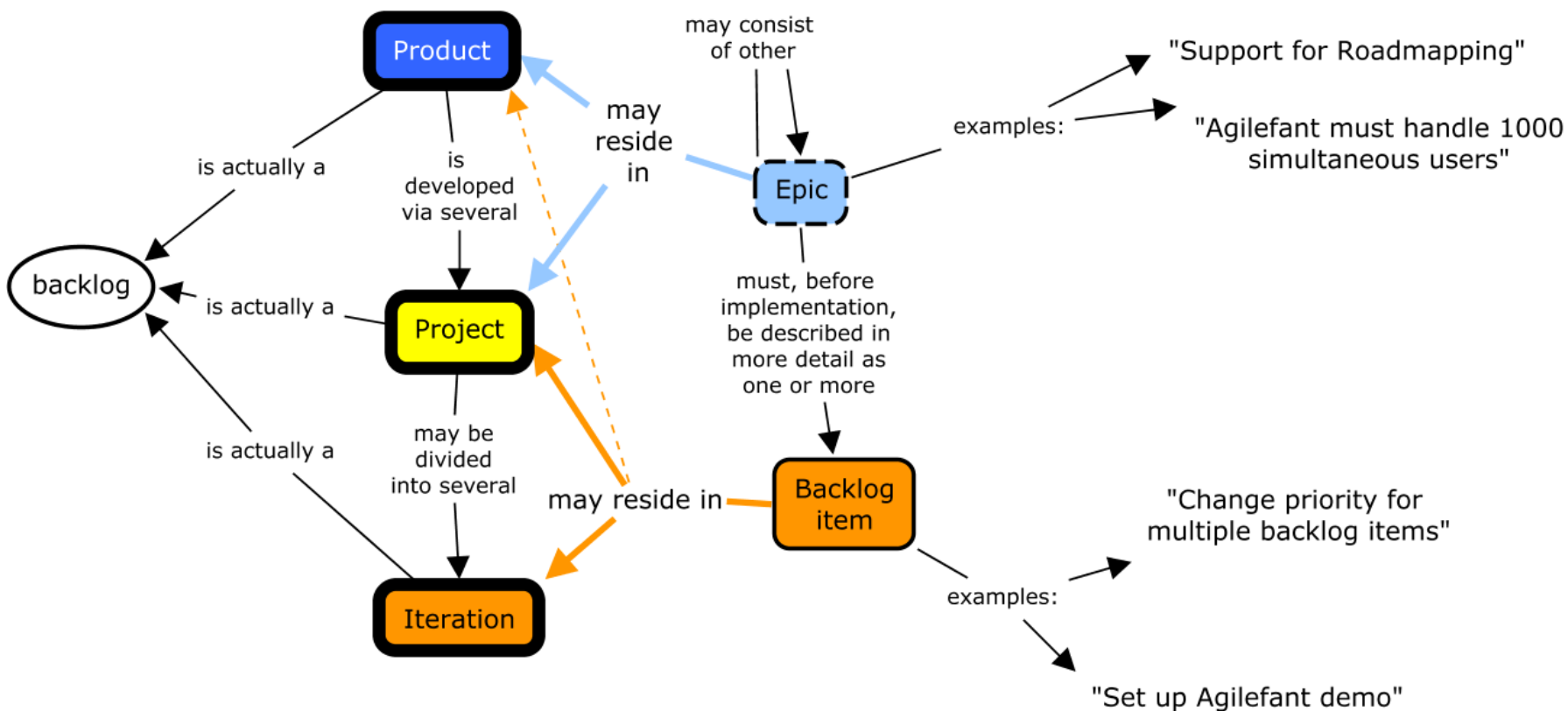
Epic

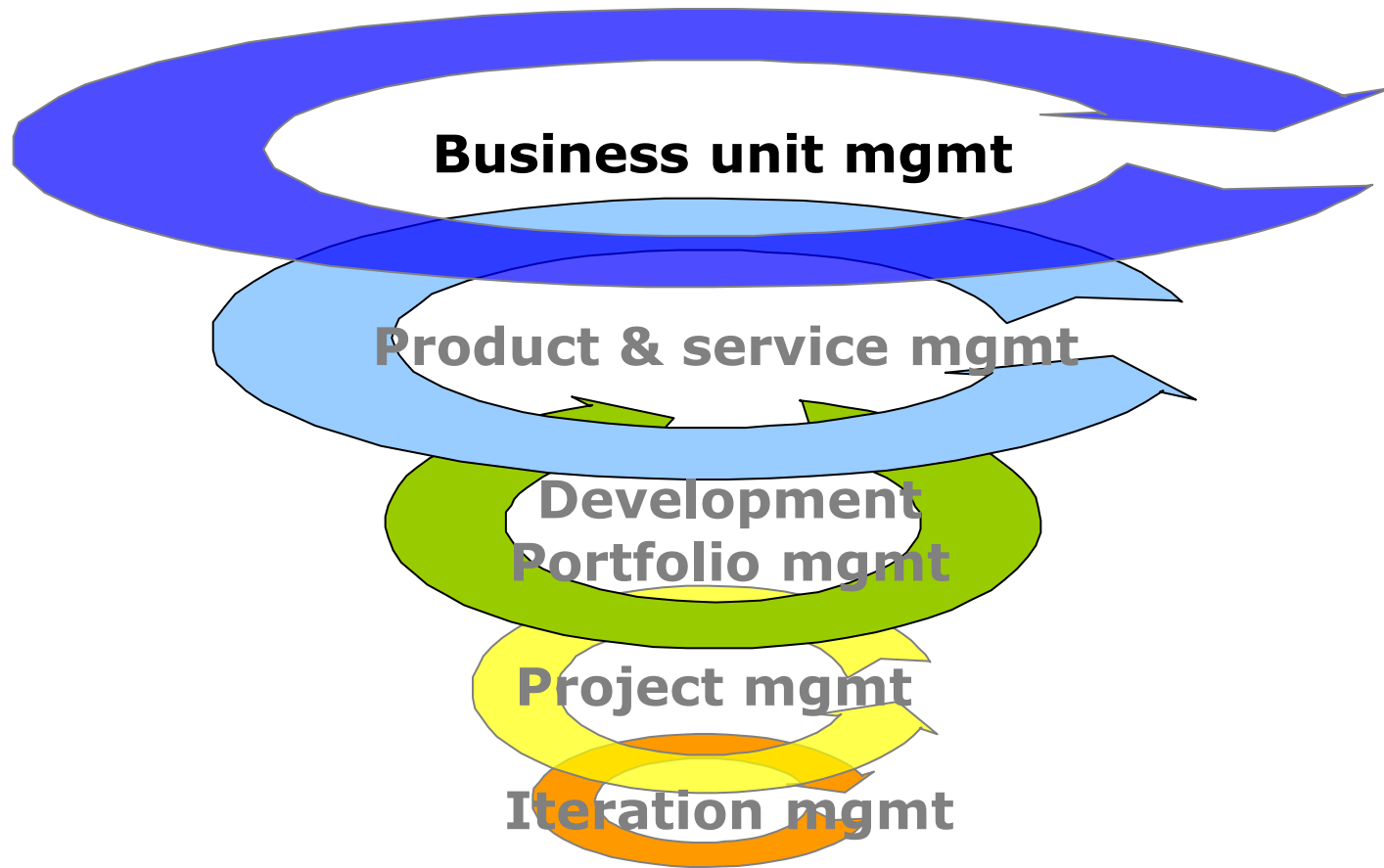
Backlog
item

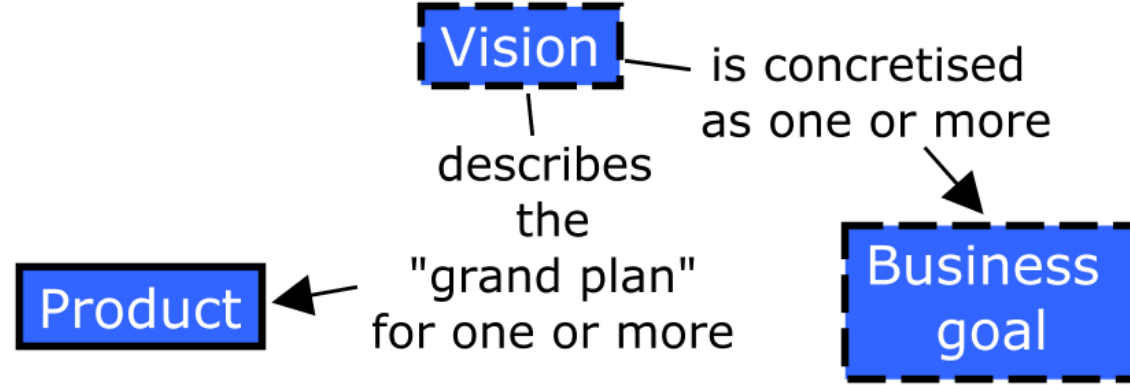


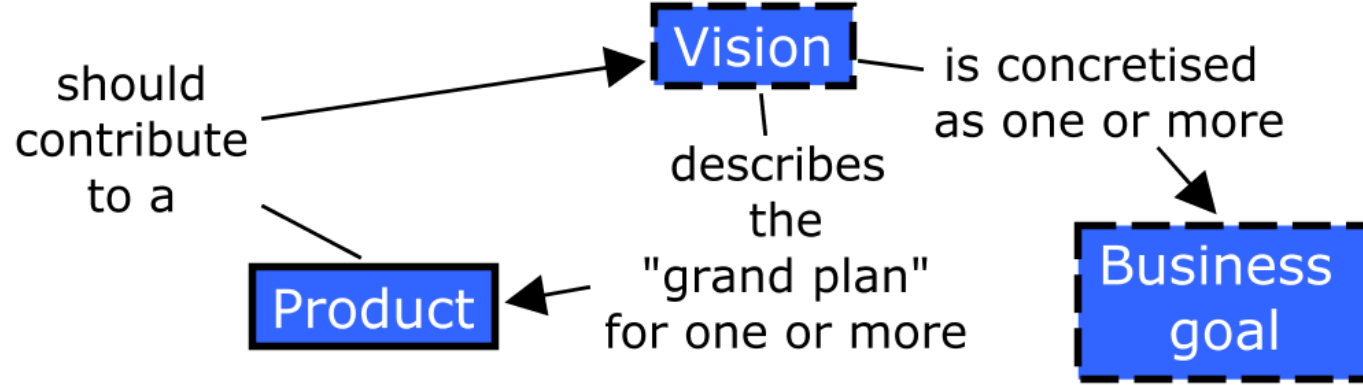


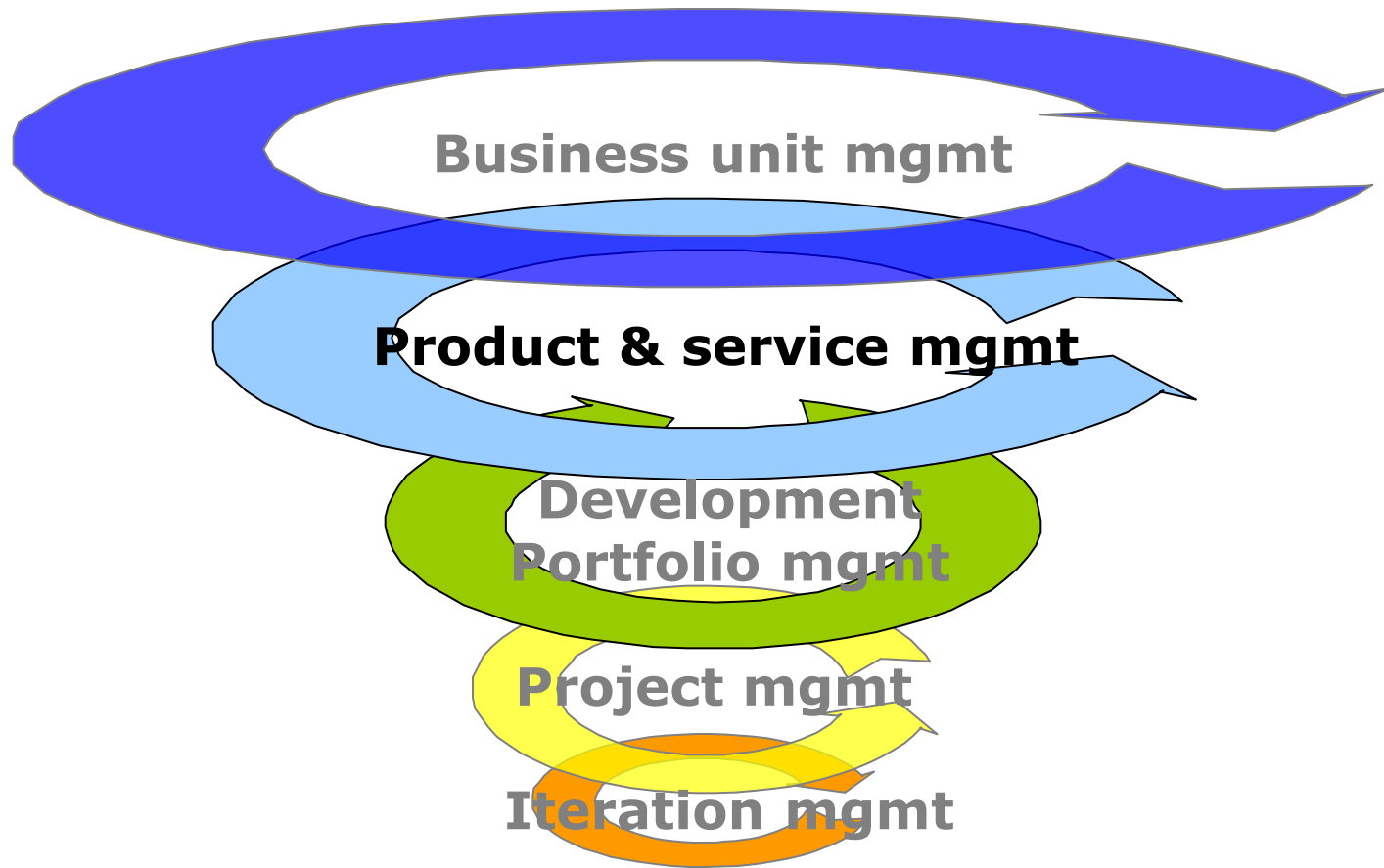


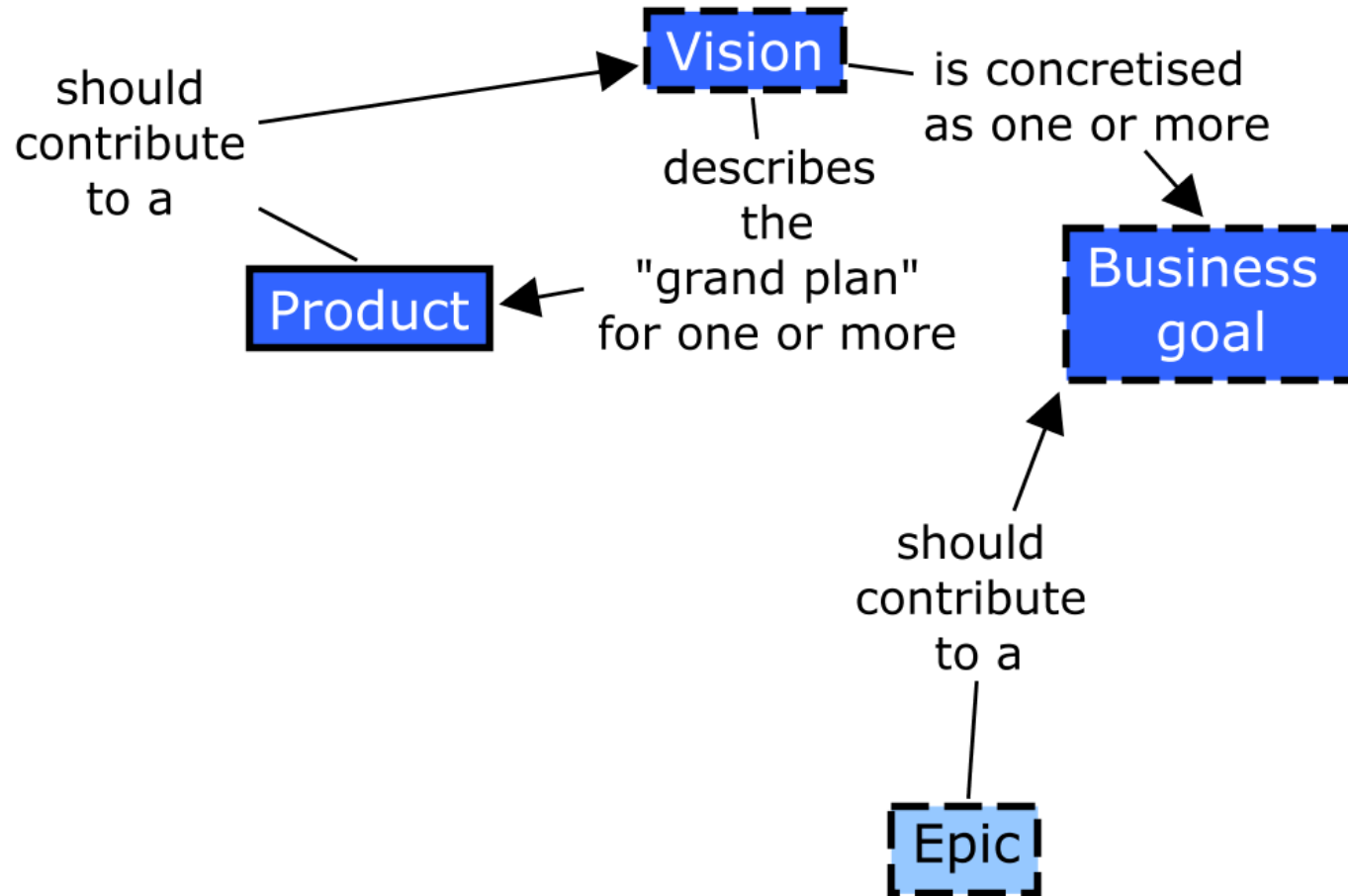


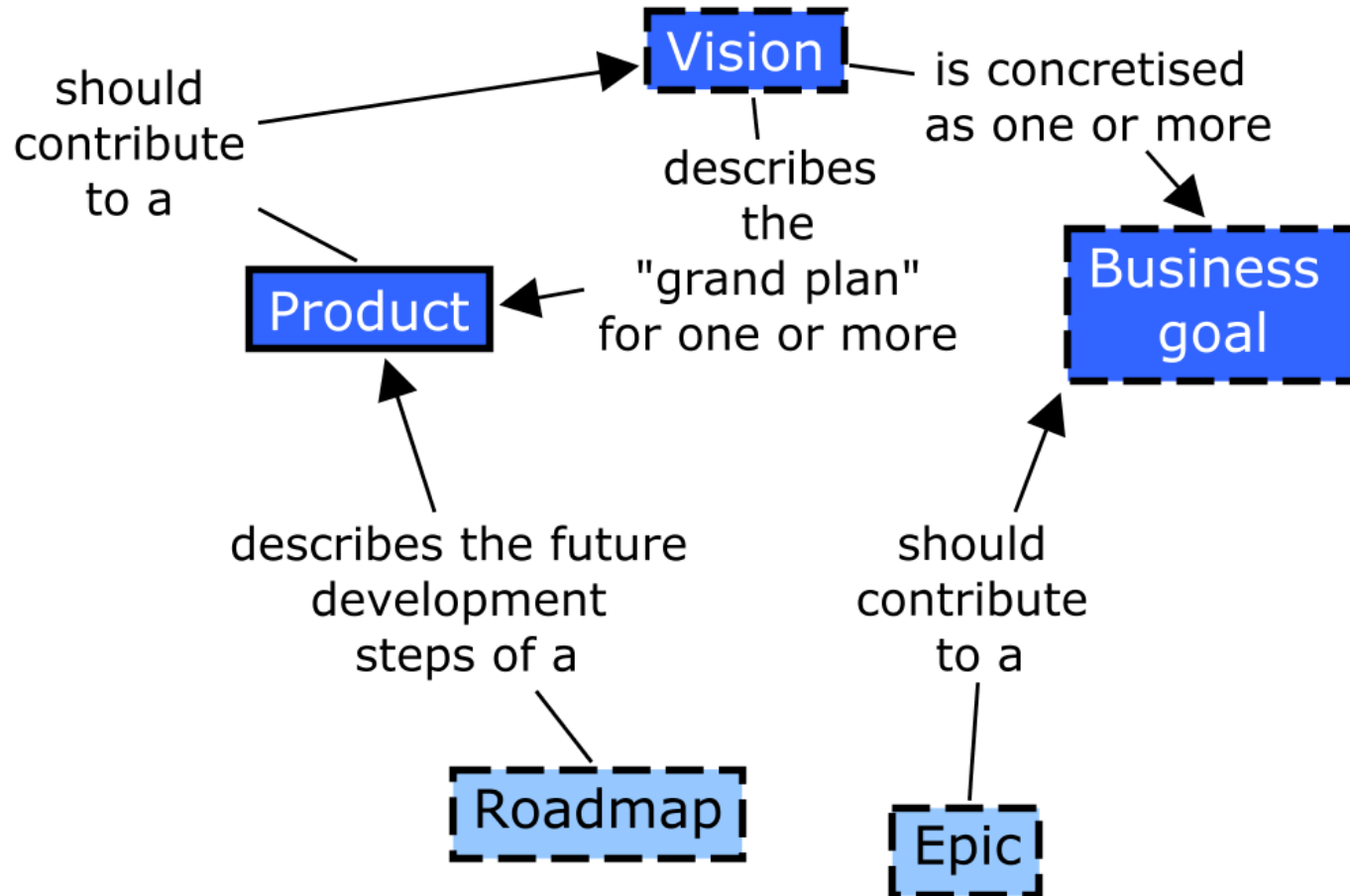


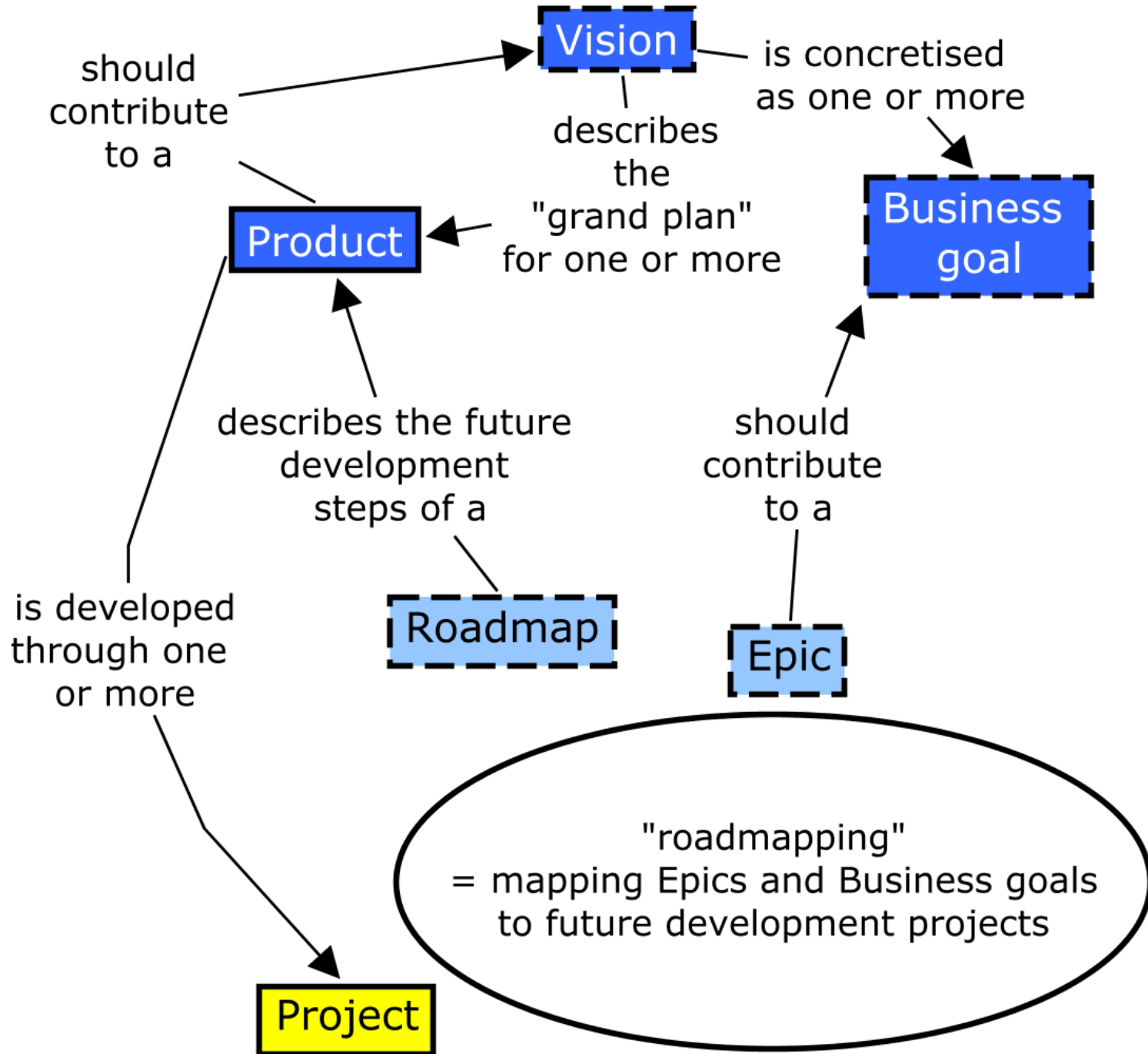


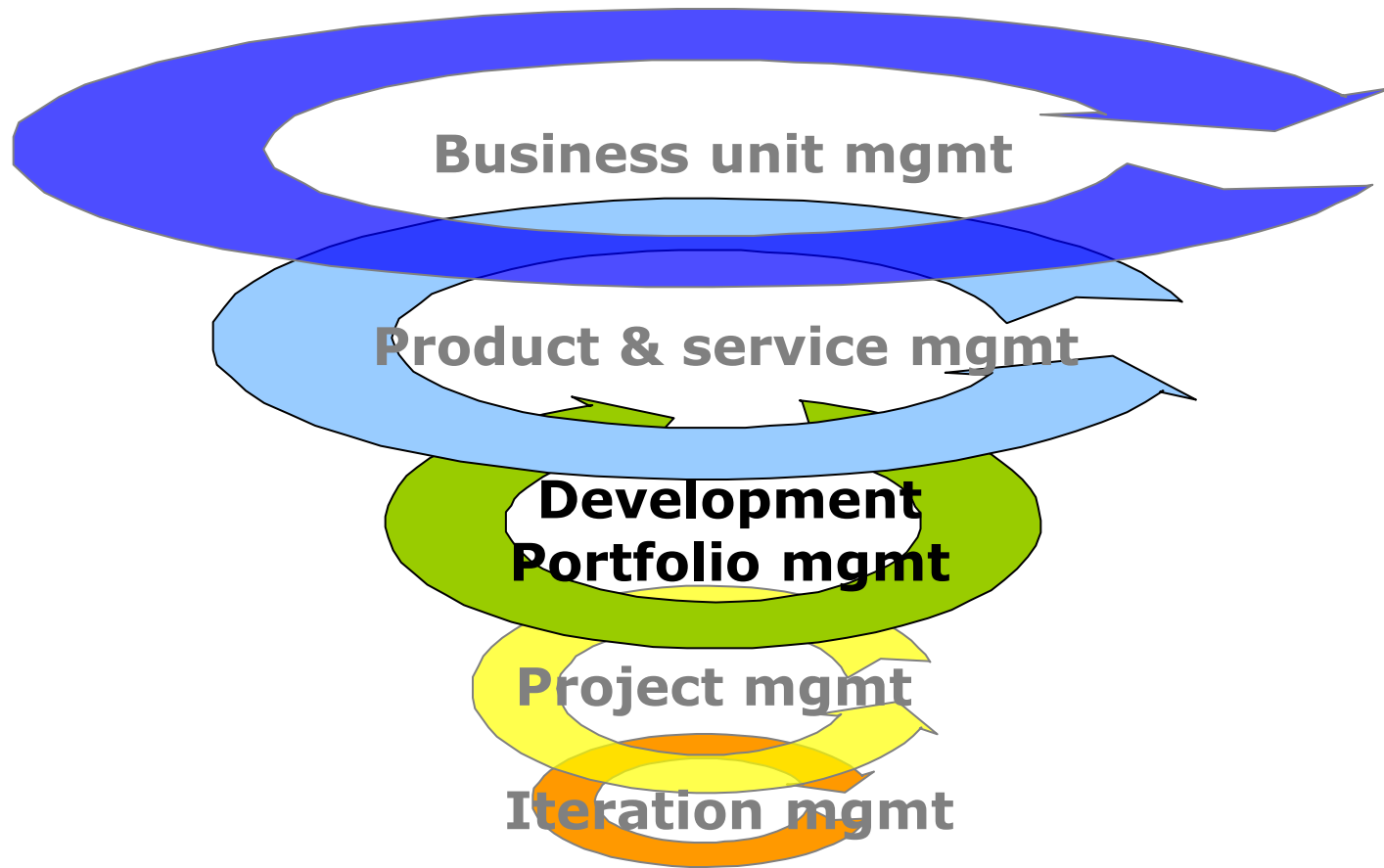












"Development portfolio management"

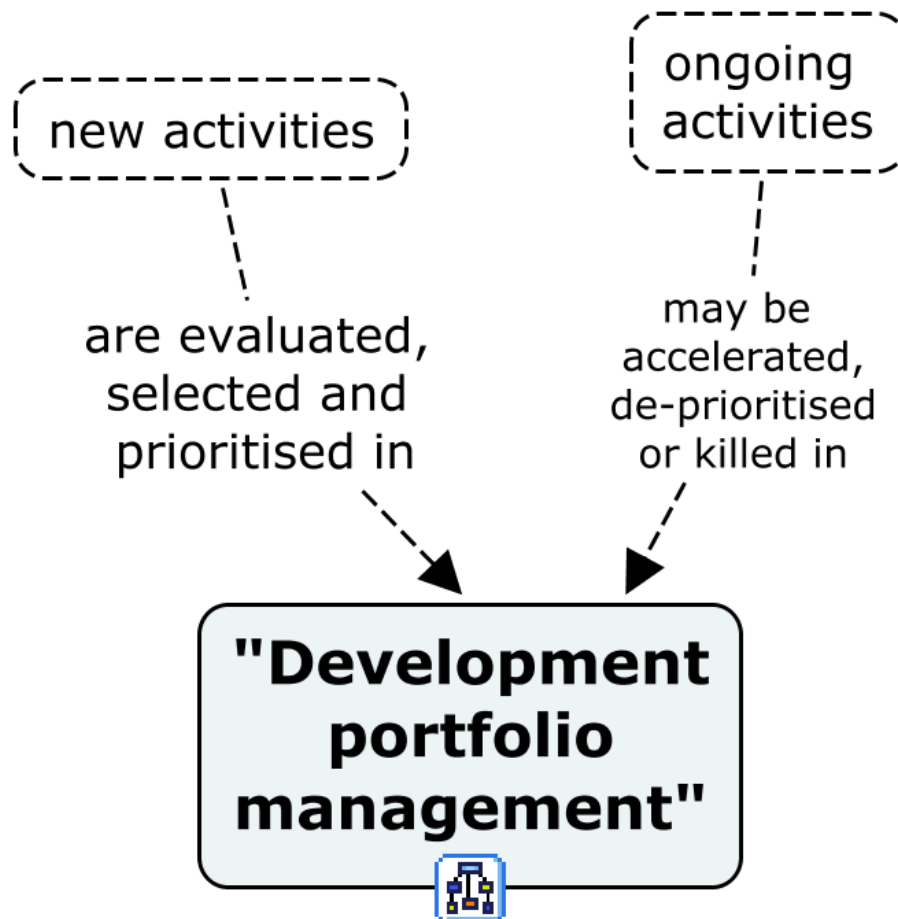


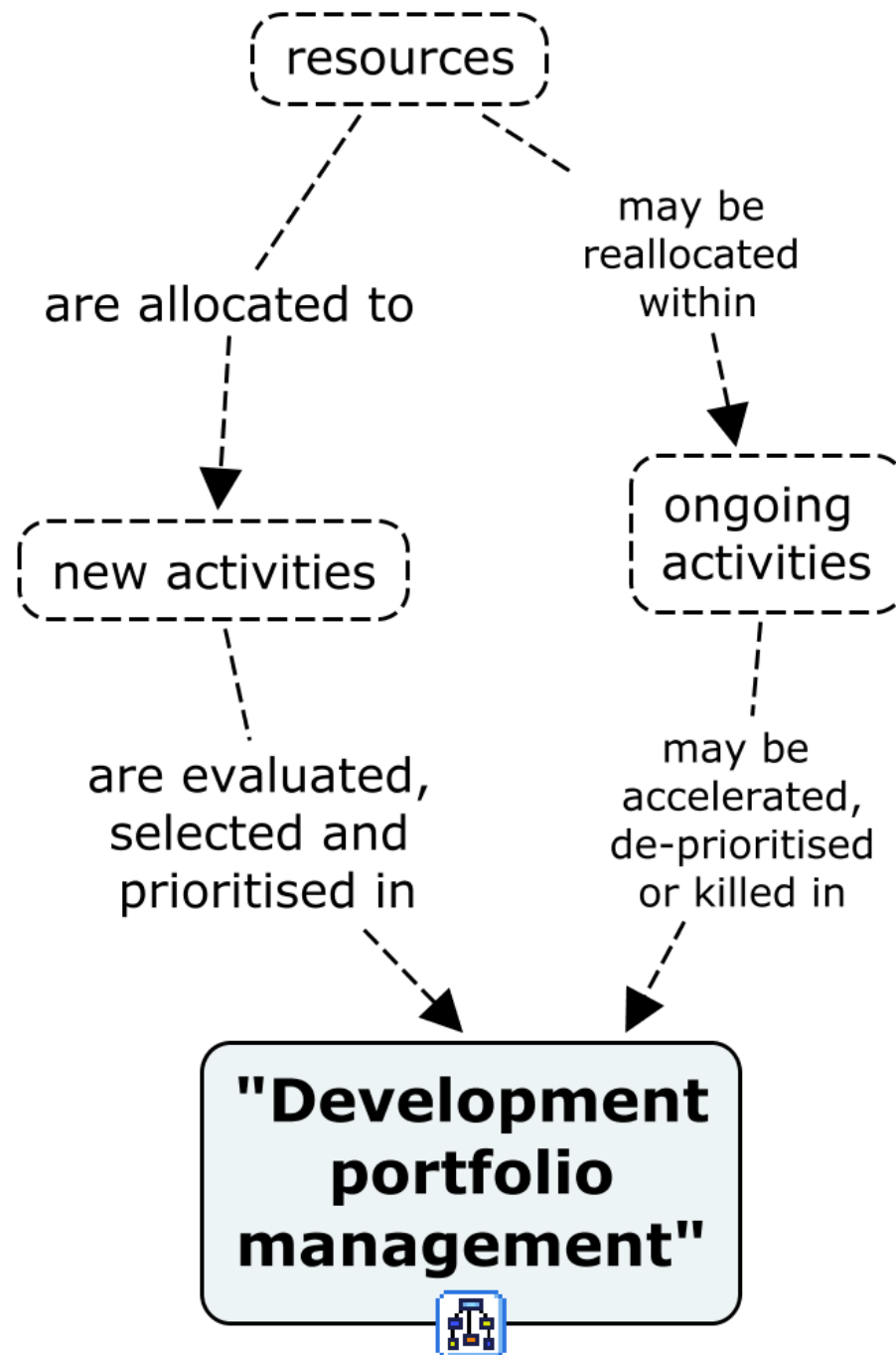
new activities

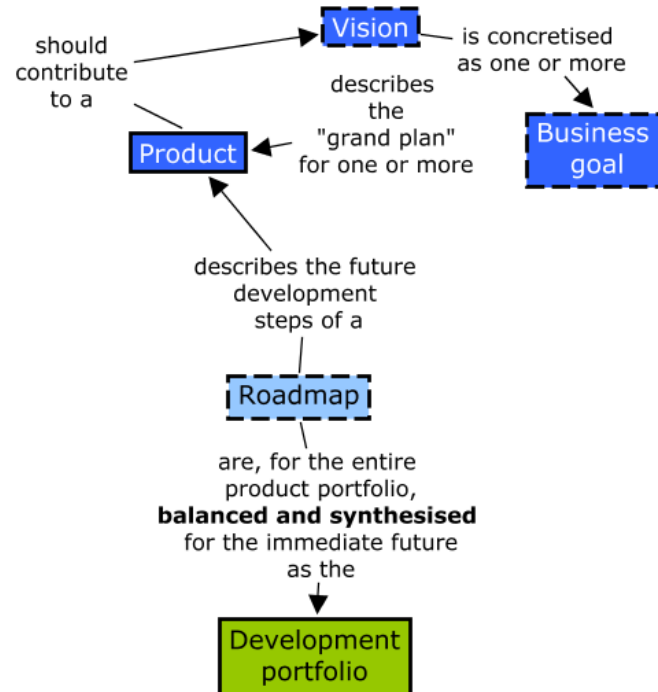
are evaluated,
selected and
prioritised in

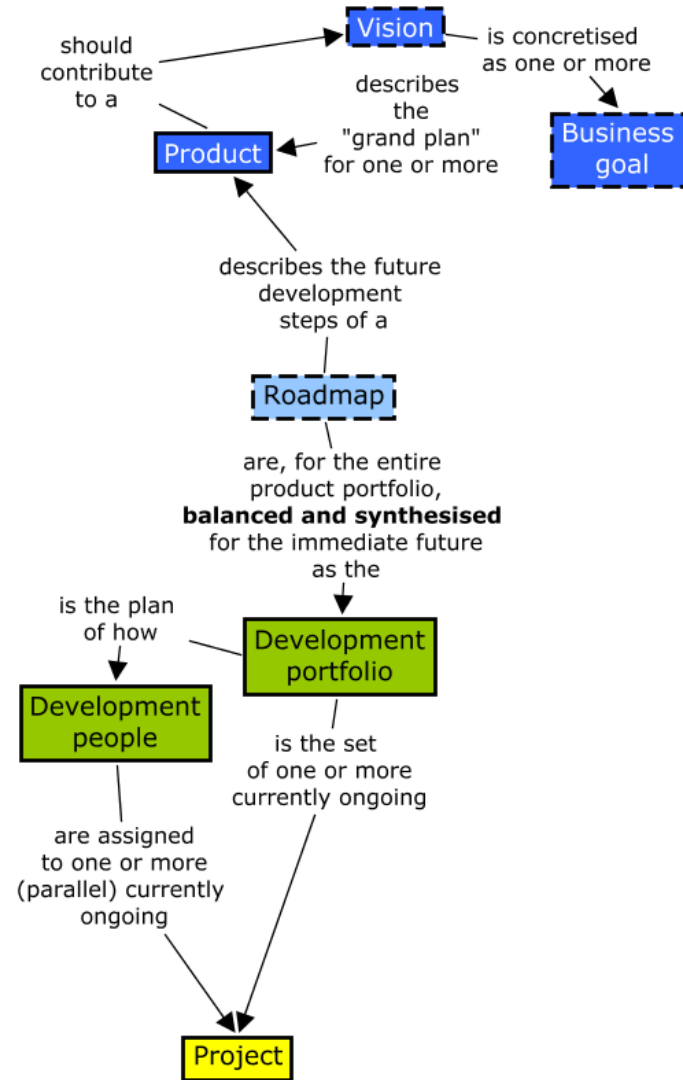
**"Development
portfolio
management"**

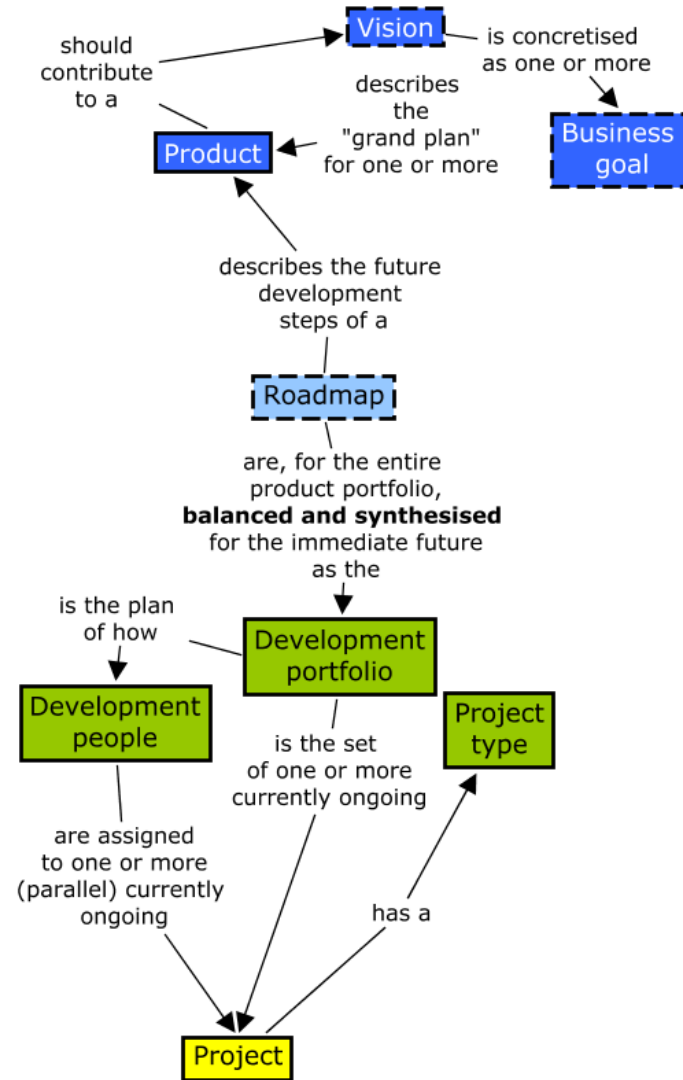


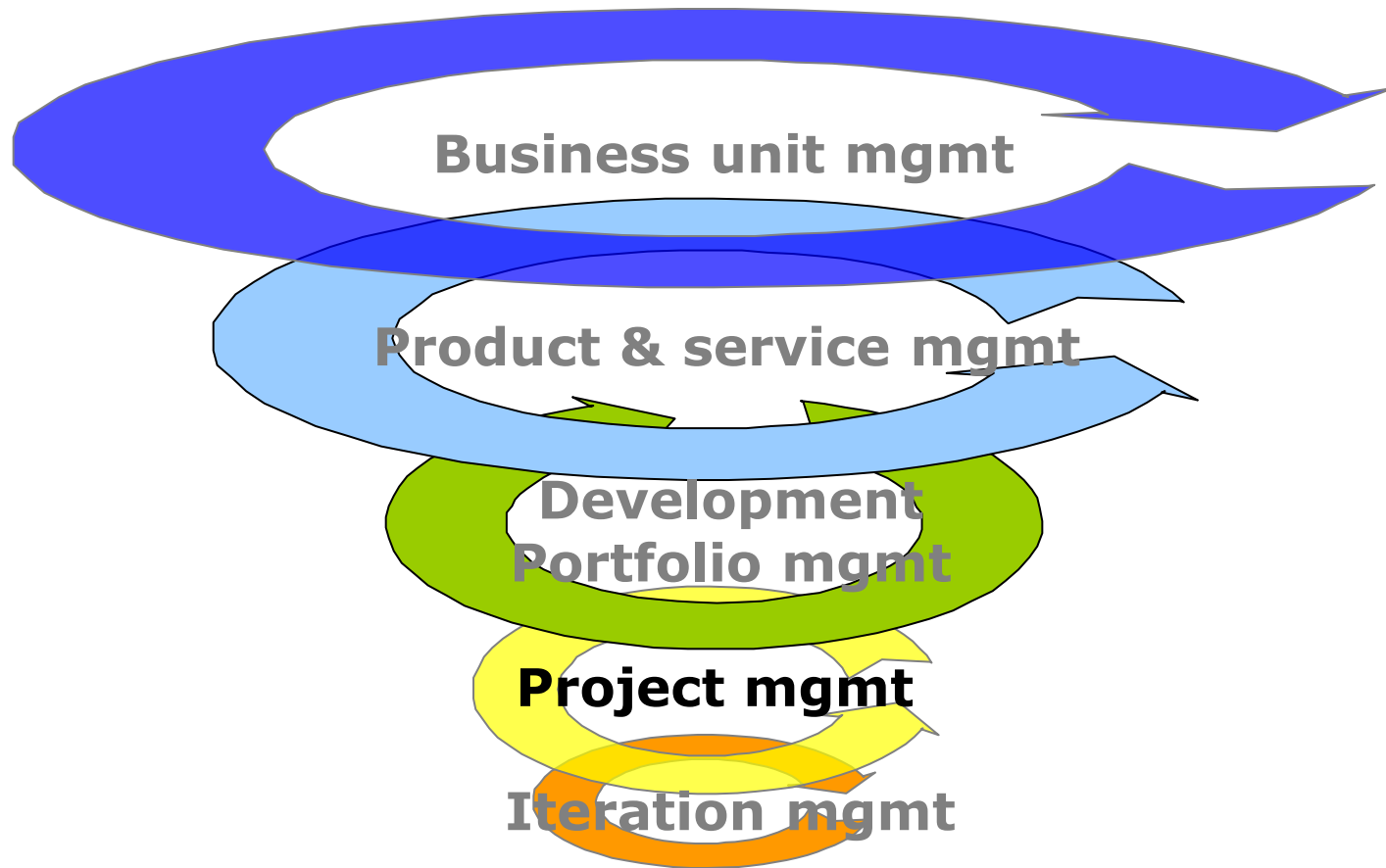


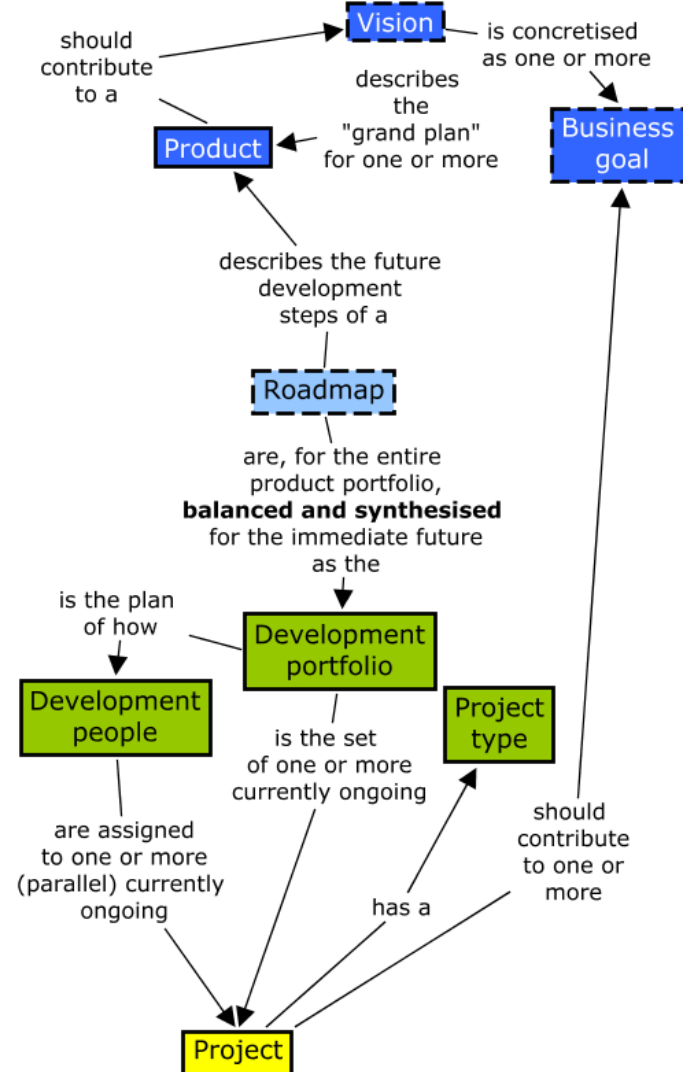


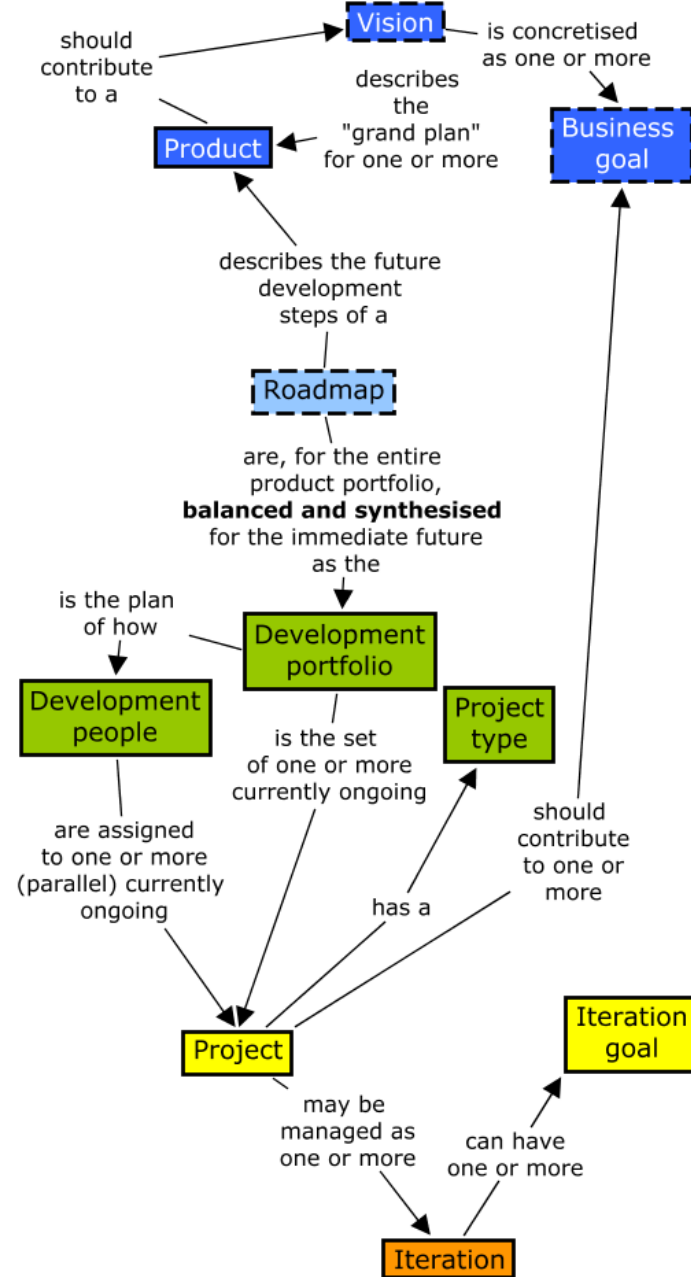


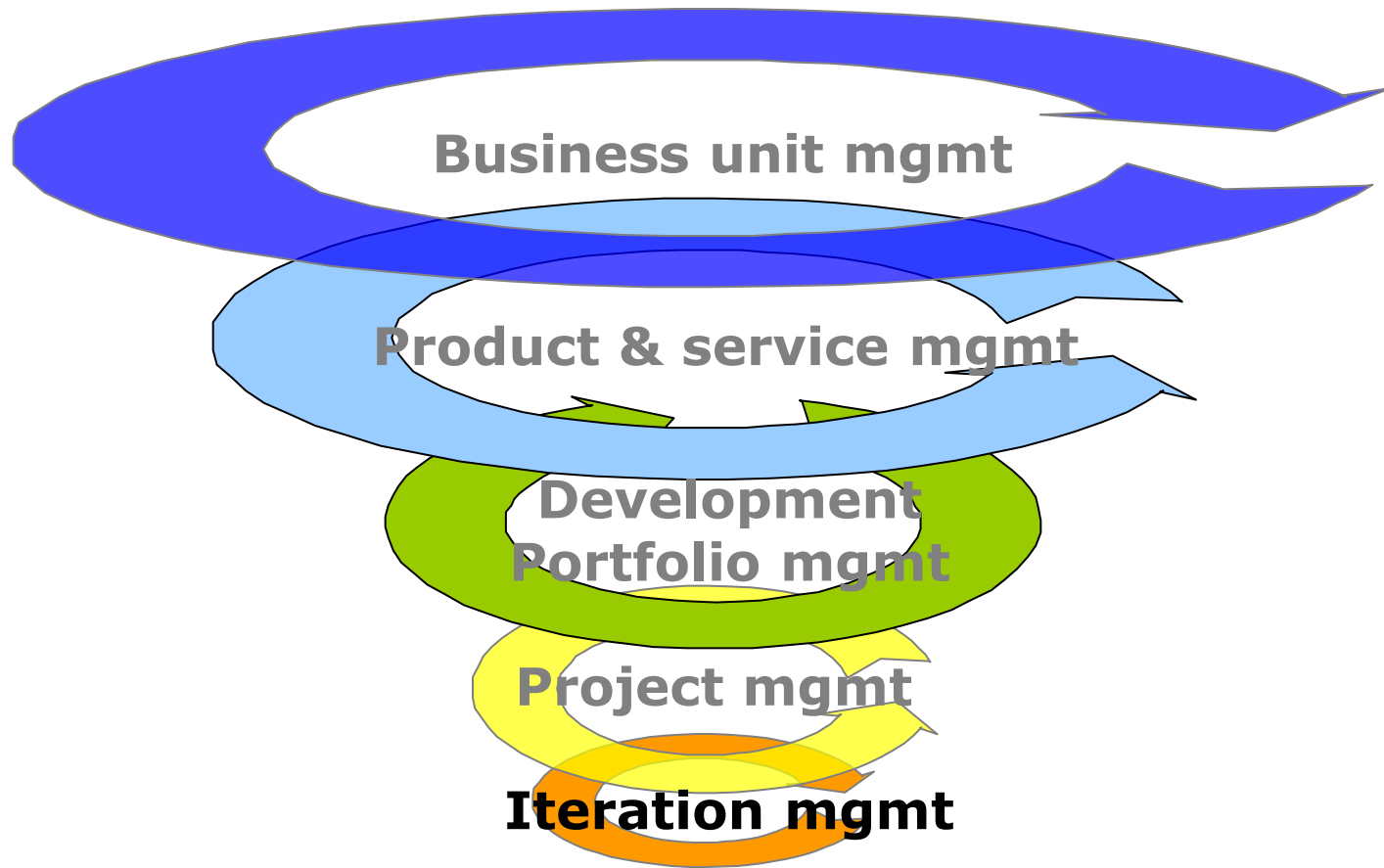


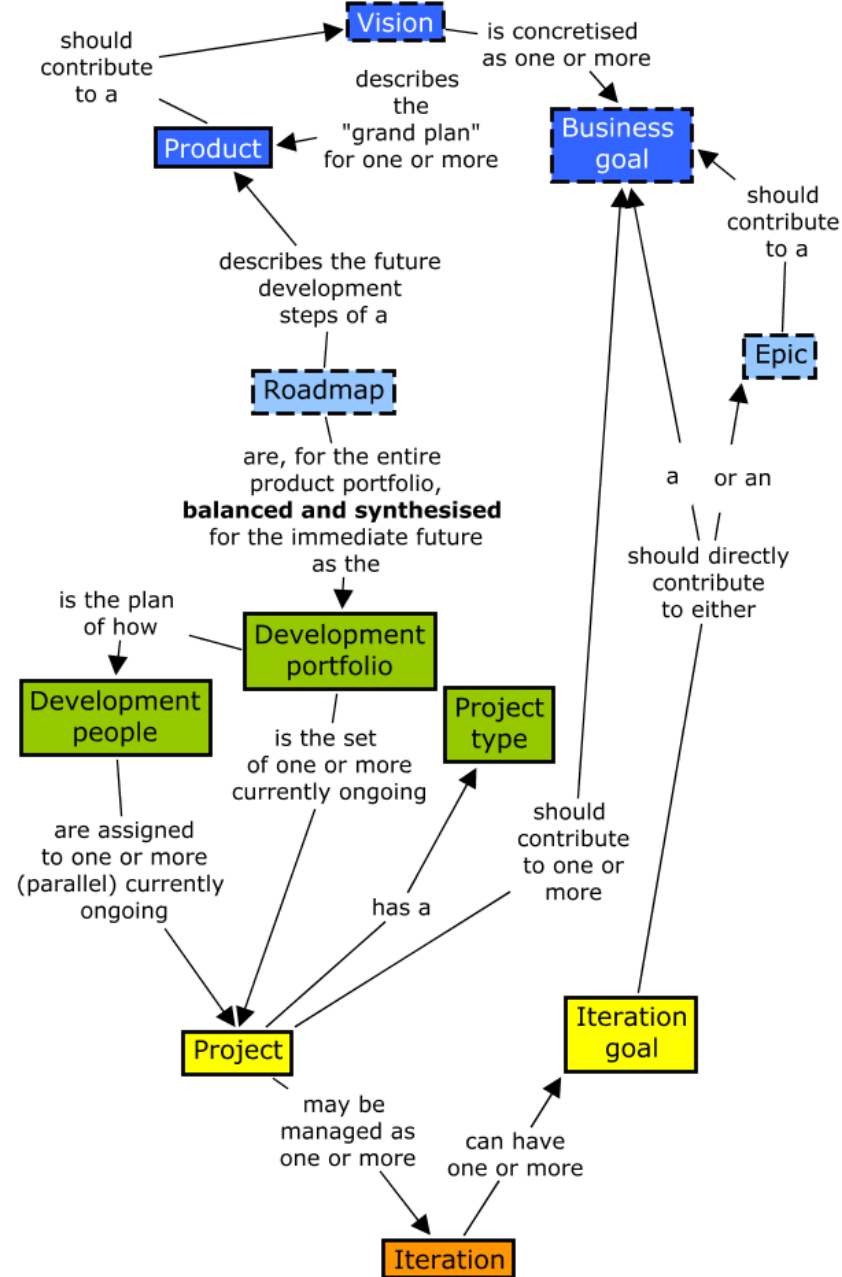


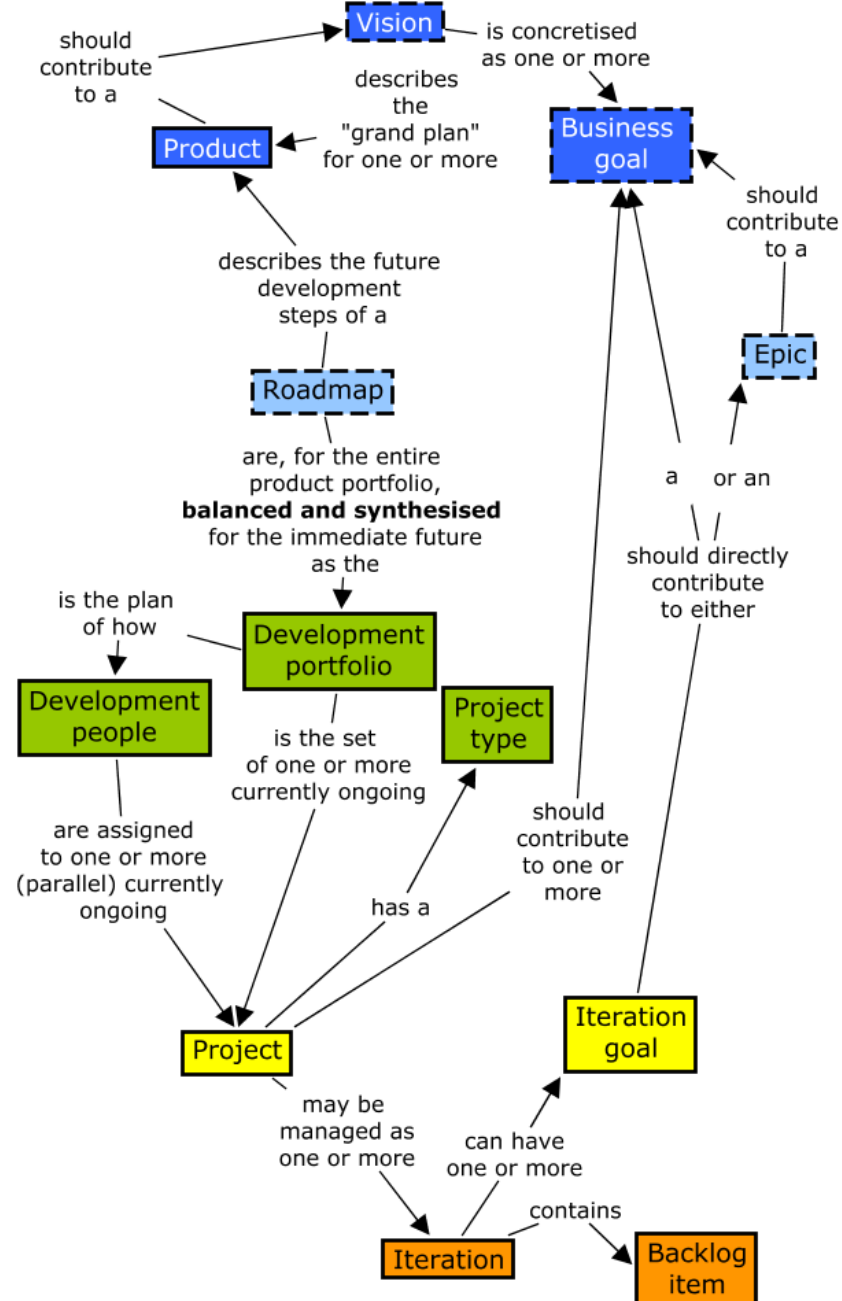


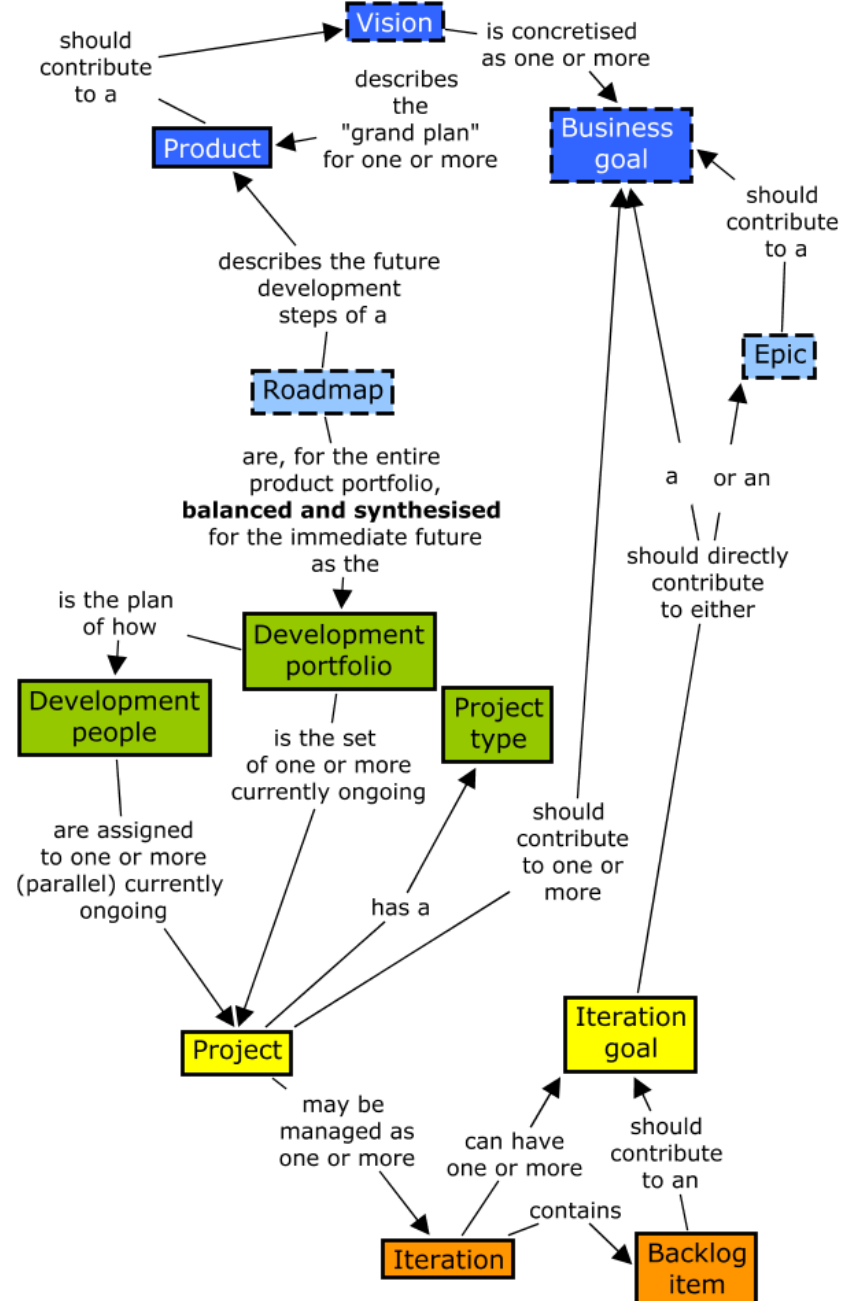


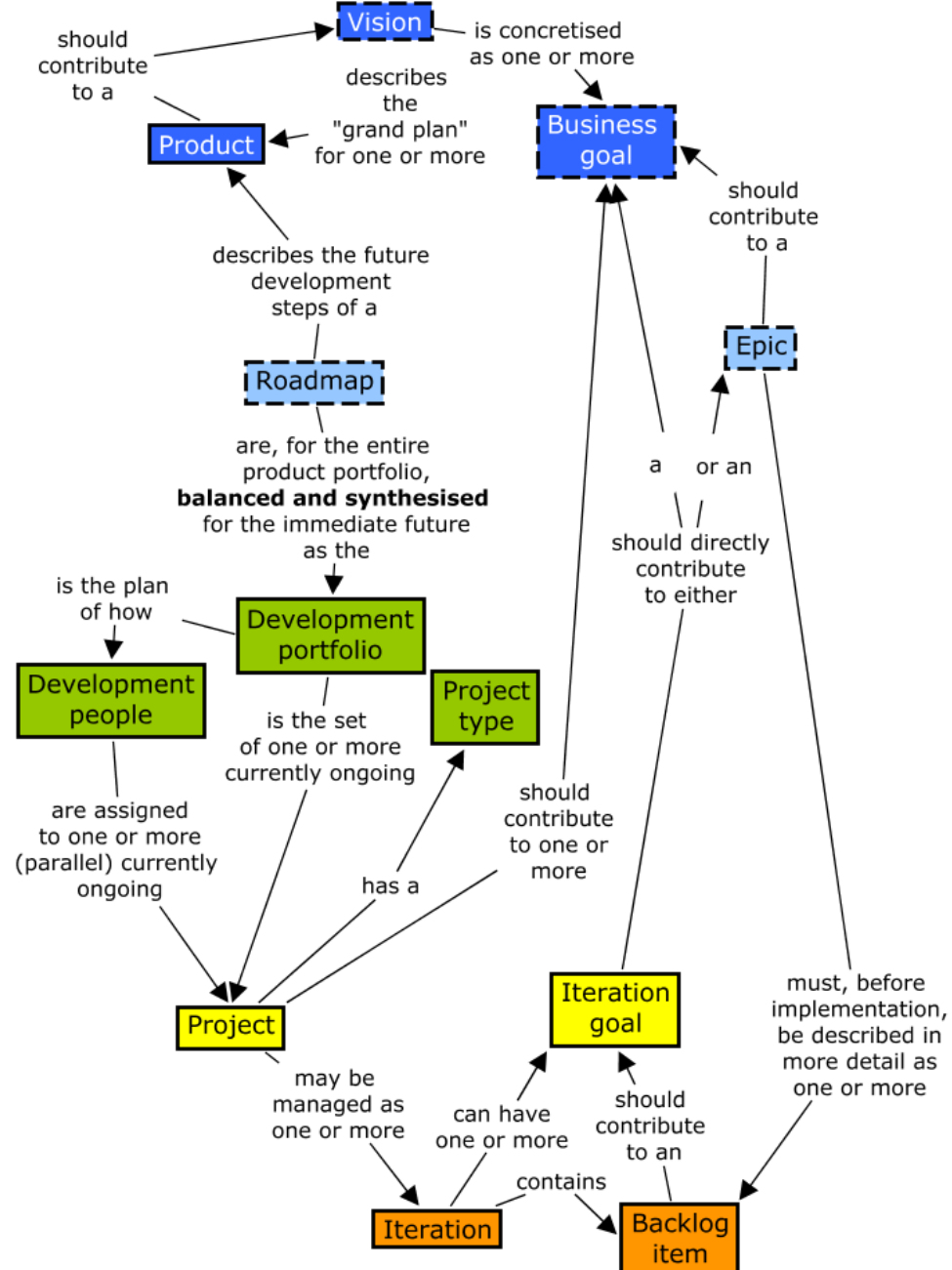


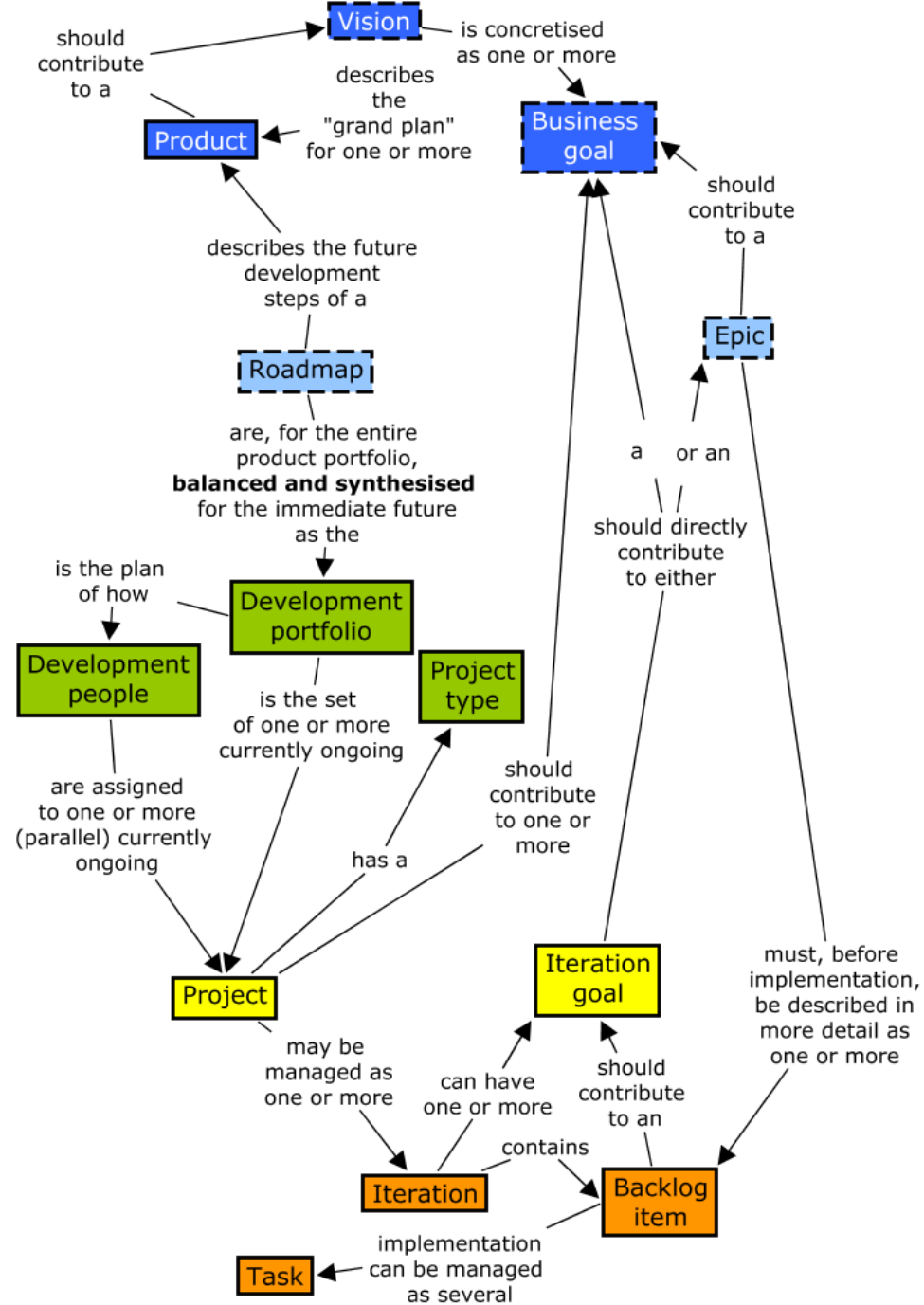


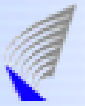












Experiences from using the framework

- Identifying missing
 - Responsibilities
 - decision-making structures
- Tangible improvement suggestions leading to action



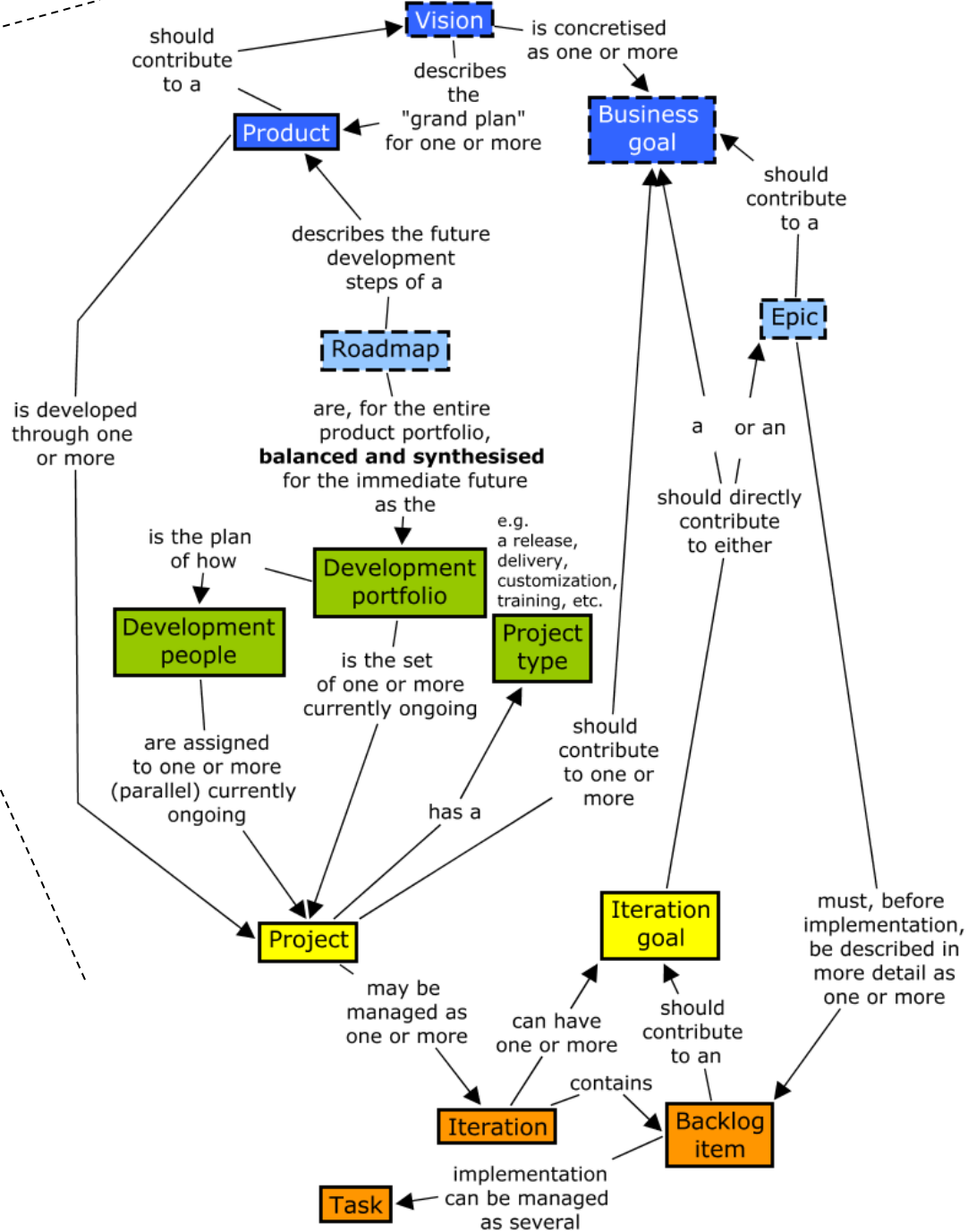
**No support
for portfolio /multi-
project management**

**No support for
linking daily
work with long-
term plans**

**No support for
agile sw
development**



Agilefant.org





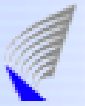
Experiences

- Three teams, one year
 - Two student groups of nine
 - One research team of four



Experiences: the research team

- A diverse "development portfolio"
 - Software development
 - Research & publishing
 - Industrial collaboration
 - Teaching
 - Consulting
- Three "products"
- Nine "projects"
 - Three of the projects have one-month iteration rhythm



Experiences: real companies!

- Three Finnish software companies
 - Started in 4-5/2008



Agilefant Demo

- Not now...
- For a personal test drive, come talk to us!



- Agilefant
 - Support
 - Maranello GTI
 - Bug basket (groome)
 - Spider
 - Preparation
- ATMAN
 - EGET, Season 07-08
 - F-Secure, Season 07-08
 - May
 - Spring 2008
 - May
 - HB backlog
- ESPA
 - Project kick-off
 - Kick-off 1
- Sekalaiset
 - Juhan liukumäet
 - Jamon häät
 - Zamon tekemisiä
 - ICSE-Utrecht-matkä
- SoberIT, SPRG & SHAP
 - Misc
 - SHAPE
 - OTP '08
 - Prosessikurssi 08
 - Tenttijakso
- Ö-MAPPI
- Ö_Floating items

Development Portfolio

Ranked Projects

Rank	Project Name	Action	Users	Load Left
1	ATMAN: Spring 2008		6	155h 57min
2	ATMAN: F-Secure, Season 07-08		6	100h + 2 non-est. BLIs
3	ATMAN: EGET, Season 07-08		4	52h
4	SoberIT, SPRG & SHAPE : OTP '08		1	59h
5	Agilefant: Maranello GTI		3	24h + 21 non-est. BLIs
6	Sekalaiset: Juhan liukumäet		1	54h 30min
7	SoberIT, SPRG & SHAPE : SHAPE		5	7h
8	SoberIT, SPRG & SHAPE : Prosessikurssi 08		1	32h
9	SoberIT, SPRG & SHAPE : Misc		5	0h
10	Agilefant: Support		0	0h
11	Agilefant: Spider		3	9h 30min + 13 non-est. BLIs

Unranked Projects

Project Name	Action	Users	Load Left
ATMAN: HB backlog		2	153h
ESPA: Project kick-off		4	26h 30min
Sekalaiset: Jamon häät		2	61h 30min

Project types

[Create new »](#)

Name	Actions
Credits (mandatory)	Delete
Industrial research co-operation	Delete
Misc	Delete



- Agilefant
 - Support
 - Maranello GTI
 - Bug basket (groome)
 - Spider
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- U-MAPPI
- U-Floating items

The daily work of [Jarno Vahaniitty](#)

Load (show details)

Week	19	20	21	22	23	24	25	26	Total
Effort	0h	42h 50min	42h 50min	38h 28min	0h	0h	0h	0h	124h 8min
Overhead	0h	0h 15min	8h 15min	8h 15min	3h 30min	3h 30min	3h 12min	2h	36h 57min
Total	0h	51h 5min	51h 5min	46h 43min	3h 30min	3h 30min	3h 12min	2h	161h 5min

Started items assigned to Jarno Vahaniitty

Backlog items

Name	Iteration goal	Responsibles	Priority	State	Context
Planes, trains & Utrecht hotel	XX Hygienia/byrc	Jarno	+++++	11 tasks, 63% done	ATMAN Spring 2008 (Research p May)
SDG presentation script ver 0.1	05 Decent SDG	Jarno	+++++	Implemented	ATMAN Spring 2008 (Research p May)
Check out how CMAP Tool presentation builder works	05 Decent SDG	Jarno	++++	Implemented	ATMAN Spring 2008 (Research p May)
Utrecht co-operation/lab seminar -presentation	01 Utrecht-ICSE	Jarno	++++	Implemented	ATMAN Spring 2008 (Research p May)
Getting familiar with the past work folders	01 Utrecht-ICSE	IL, Jarno, Kqr, Ville	++++	Started	ATMAN Spring 2008 (Research p May)
SDG presentation slides ver 0.1	05 Decent SDG	Jarno	++++	Started	ATMAN Spring 2008 (Research p May)
Rehearse & fine-tune the SDG presentation	05 Decent SDG	Jarno	++++	Started	ATMAN Spring 2008 (Research p May)
Konsortiosopimus osa 1: Firmsien tarkistuskierros	XX Hygienia/byrc	Jarno	+++	Blocked	ATMAN Spring 2008 (Research p May)
Konsortiosopimus osa 2: Nimet konsortiosopimukseen	XX Hygienia/byrc	Jarno	+++	Blocked	ATMAN Spring 2008 (Research p May)

- Misc
- SHAPE
- OTP 08
- Prosessikurssi 08
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Ilkka ylityöt		IL	+	Started	ATMAN
Agilefant Scorecard	XX Unplanned	IL, Kqr	+	2 tasks, 0% done	Spring 2008 (Research project)
Internal terminology workshop (6.5.?)	01 PdC terminology	IL, Kqr	+++++	3 tasks, 0% done	May
					F-Secure, Season 07-08 (Industrial res)

All items assigned to Ilkka Lehto from ongoing iterations

ATMAN — Spring 2008 — May (Research project)						
Name	Iteration goal	Responsibles	Priority	State	Effort Left	Orig. est.
Subscribe Utrecht people to Atman blog	01 Utrecht-ICSE	IL	+++++	2 tasks, 0% done	10min	15min
ILE: SPRG-tutkimussuunnitelma	03 Ilkka DI:stä tutkimussuunnit	IL	++++	Not started	9h	9h
ILE: Story board	03 Ilkka DI:stä tutkimussuunnit	IL	++++	Started	2h 45min	3h
Getting familiar with the past work folders	01 Utrecht-ICSE	IL, Jarmo, Kqr, Ville	++++	Started	5h	8h
Jory (itse kokous)	06 Jory ollut menestys	IL, Jarmo, Kqr, Ville	++	Not started	8h	8h
Kehityskeskustelu, Ilkka	XX Hygienia/byrokr	Cls, IL, Jarmo	++	Not started	4h	4h
Järkkää ohjelma SPRG-strategiapäivälle ICSE-reissulla	XX Hygienia/byrokr	Cls, IL, Jarmo, Kqr, Ville	++	Not started	7h	7h
(loput duunit) PILKO	07 CSM&PO-kurssi	IL, Jarmo, Reko	++	Not started	4h	4h
Agilefant Scorecard	XX Unplanned	IL, Kqr	+	2 tasks, 0% done	0h	2h
					39h 55min	45h 15min
ATMAN — F-Secure, Season 07-08 — May (Industrial research co-operation)						
Name	Iteration goal	Responsibles	Priority	State	Effort Left	Orig. est.
May PdC Fri 23.5.	02 Observations	IL, Jarmo, Kqr	+++++	Not started	15h	15h
TechCounsil	02 Observations	IL, Jarmo, Kqr	+++++	Not started	18h	18h
Internal terminology workshop (6.5.?)	01 PdC terminology	IL, Kqr	+++++	3 tasks, 0% done	0h	10h
PdC preparation (Matti Ropponen & Pekka Usva)	02 Observations	IL, Jarmo	++++	Not started	18h	18h
PdC prep (Tarja Aarnio: roadmap consolidation)	02 Observations	IL, Kqr	++++	Not started	18h	18h
Meeting with thesis workers 21./22. 5.	03 Mikko's M.Sc. meeting	IL, Kqr	+++	Not started	6h	6h
					75h	85h



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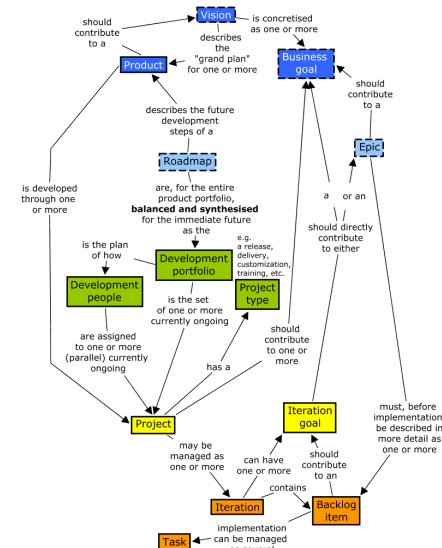
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Konsortiosopimus osa 2: Nimet konsortiosopimukseen	XX Hygienia/byrc	Jarno	+++	Blocked <div><div></div></div>	ATMAN Spring 2008 (Research p May)



Summary

- A framework for linking long-term product and business plans with agile sw development
- A proof-of-concept open source tool based on the framework





Future work

- Improving and validating the framework
 - Existing literature
 - Case studies
 - Piloting Agilefant in SW companies
- Existing solutions for project/backlog/issue mgmt
 - A core set of 'feature families'?
- Developing Agilefant
 - The Business and Product & service mgmt levels
 - Timesheets

Thank You!

