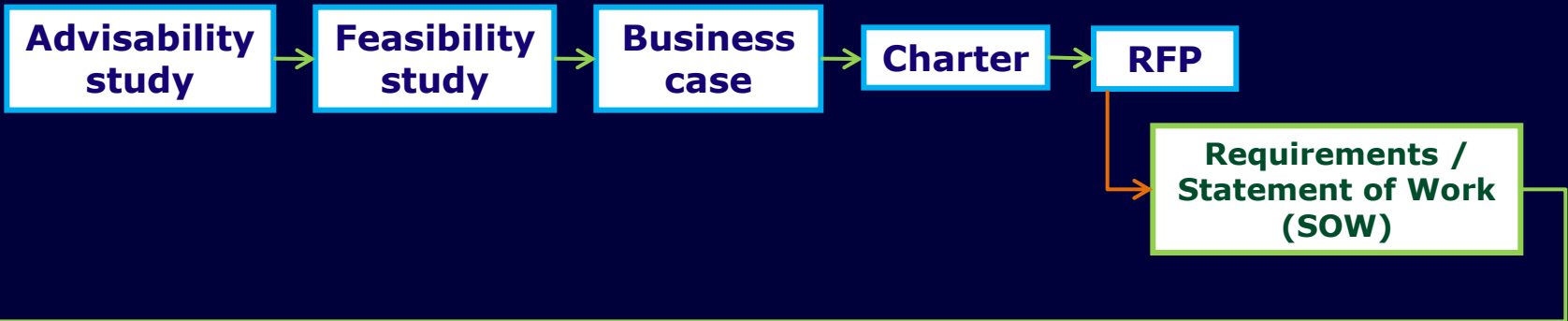


Project Management

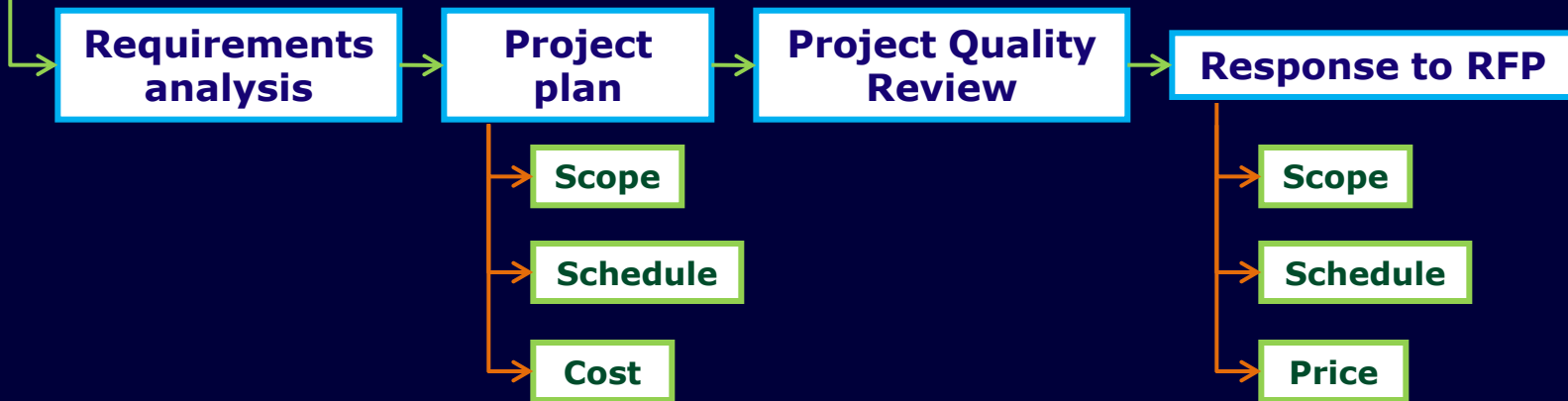
Project EXONE Screenshots

Requirements: client & contractor

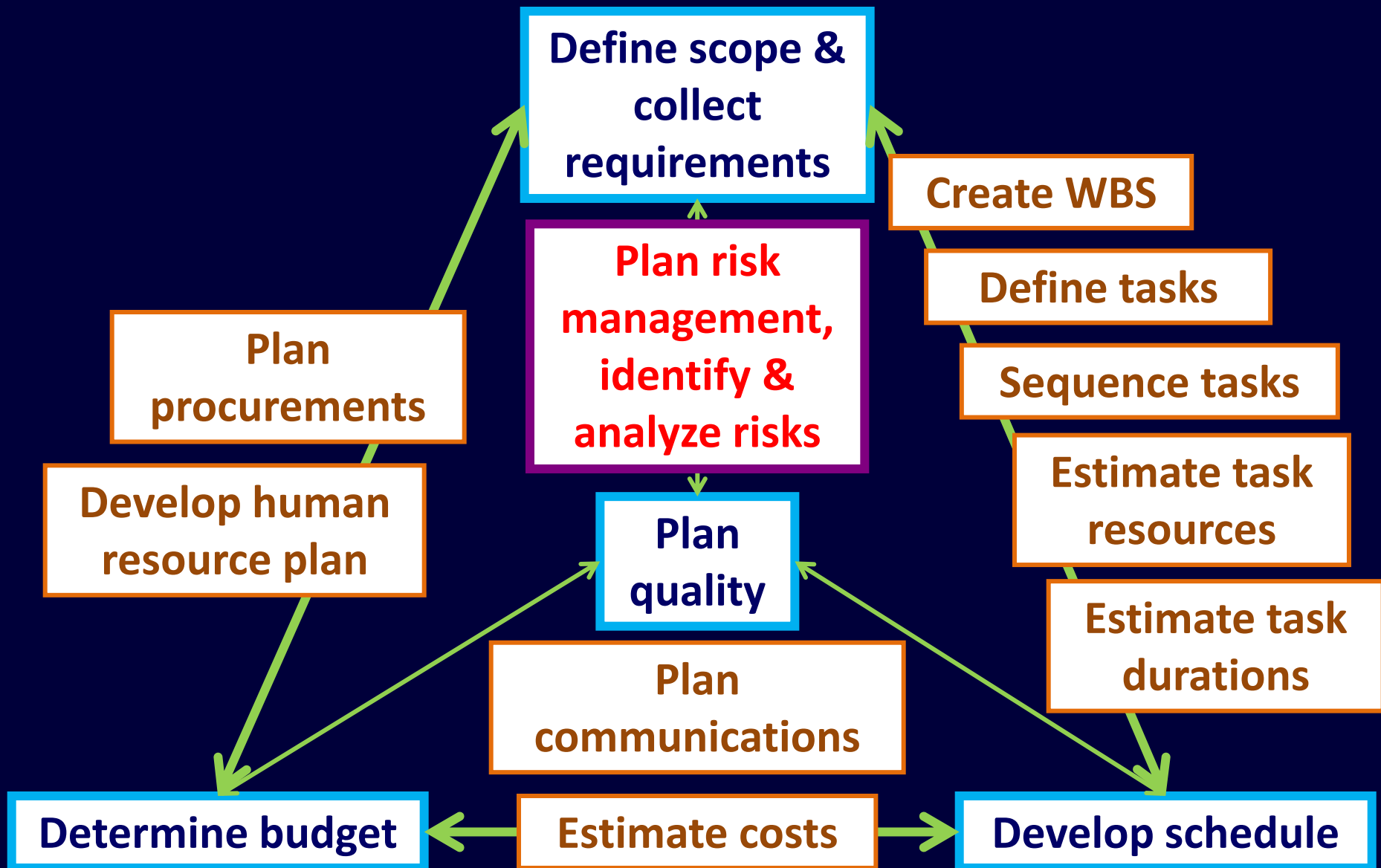
CLIENT



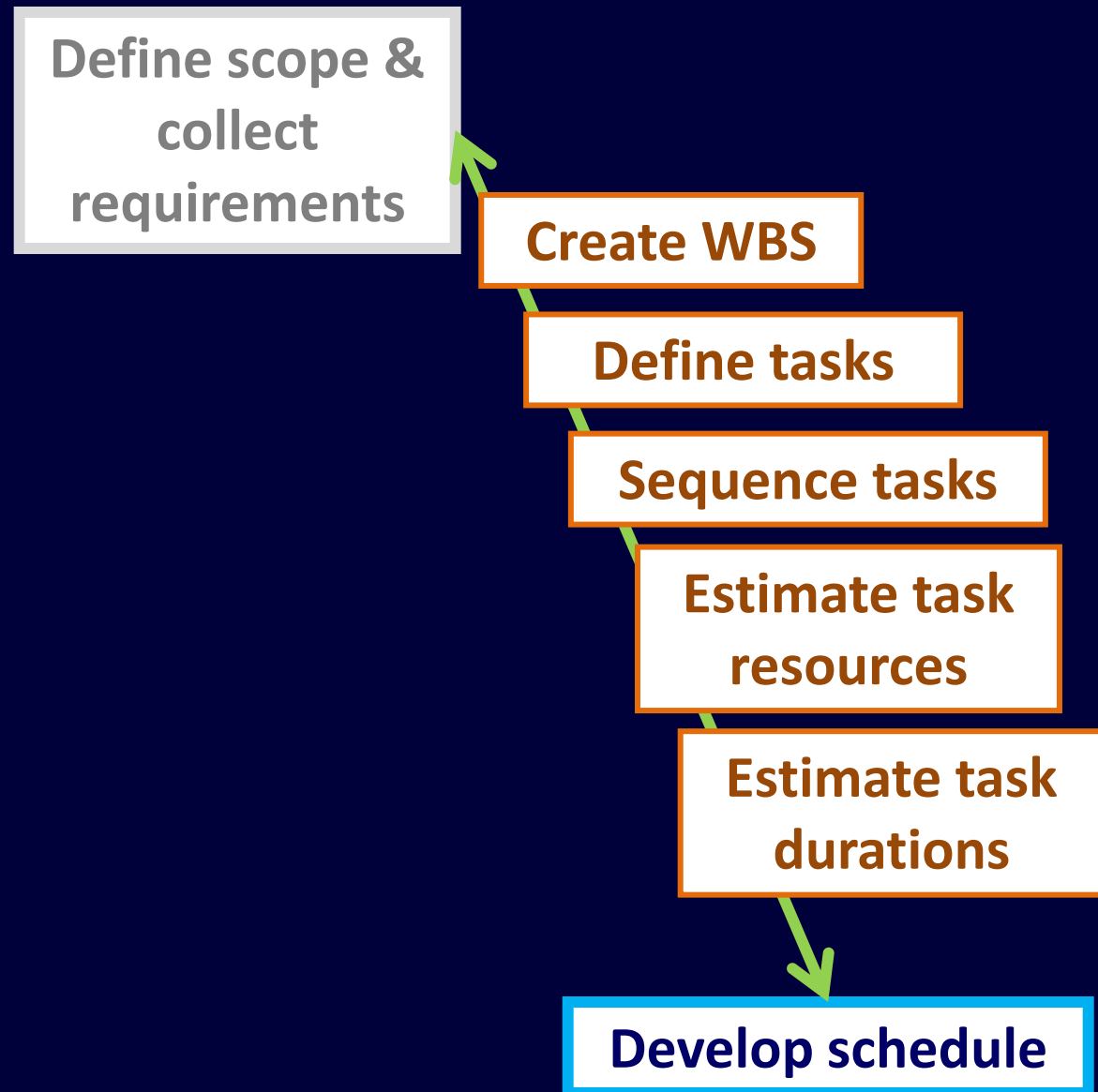
CONTRACTOR



Project planning processes



From scope/requirements to schedule



Project EXONE: Contractor's WBS

Requirements

Review requirements

Agree on requirements

Design

Perform design

Agree on design

Coding & Integration

Alpha version

Beta version

Final version

Content subset

Complementary content

Testing & Acceptance

Prepare test plan & test cases

Internal

Alpha version

Beta version

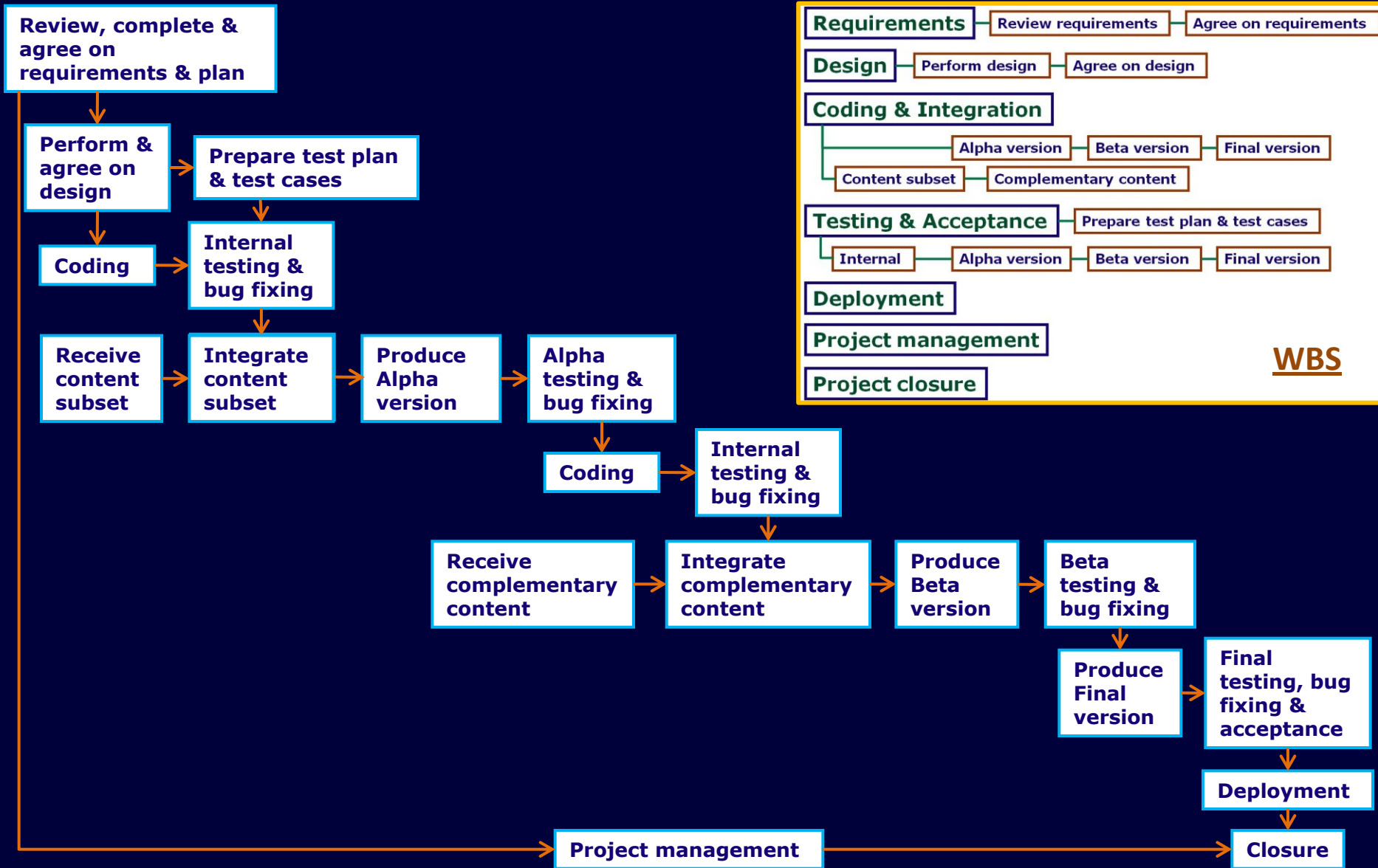
Final version

Deployment

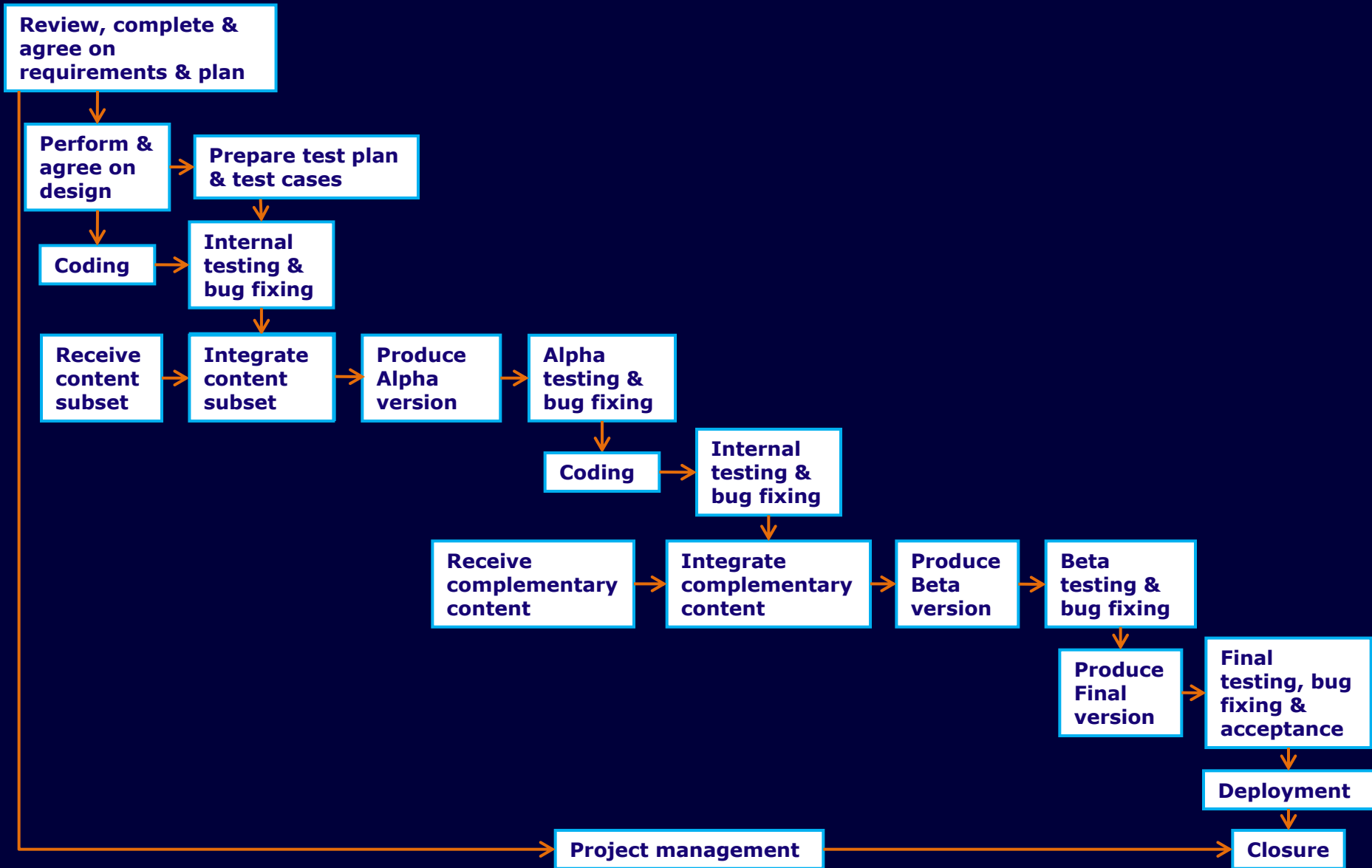
Project management

Project closure

EXONE: Contractor's network diagram (1)



EXONE: Contractor's network diagram (2)



Project EXONE: Client's WBS

Requirements

Review & agree on requirements w/ contractor

Software Design

Discuss & agree on design w/ contractor

Software implementation

Alpha version

Beta version

Final version

Content creation & integration

Creation, proofreading, preparation & delivery to contractor

Content subset

Complementary content

Testing & Acceptance

Prepare test plan & test cases

Alpha version

Beta version

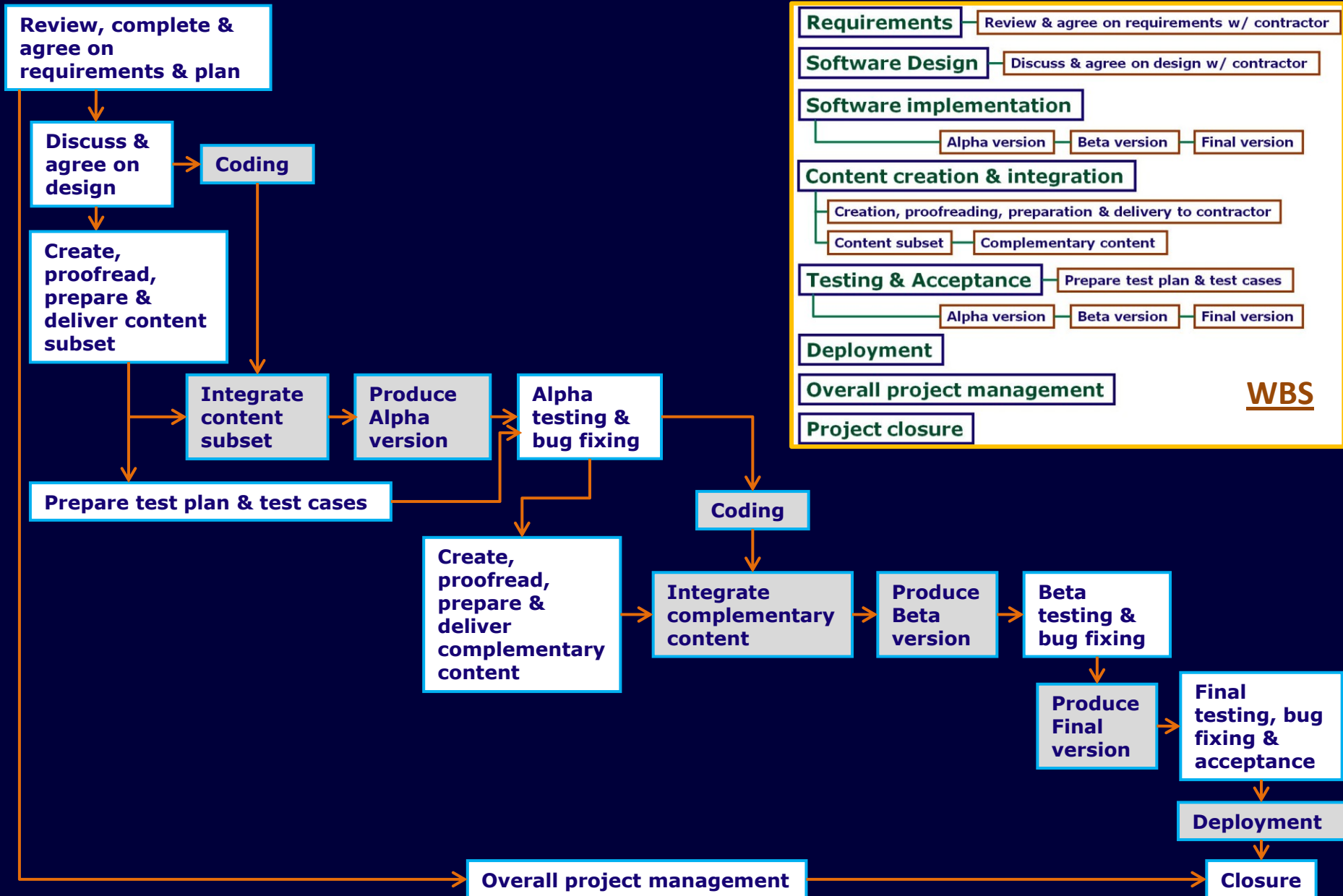
Final version

Deployment

Overall project management

Project closure

EXONE: Client's network diagram (1)



EXONE: Client's network diagram (2)

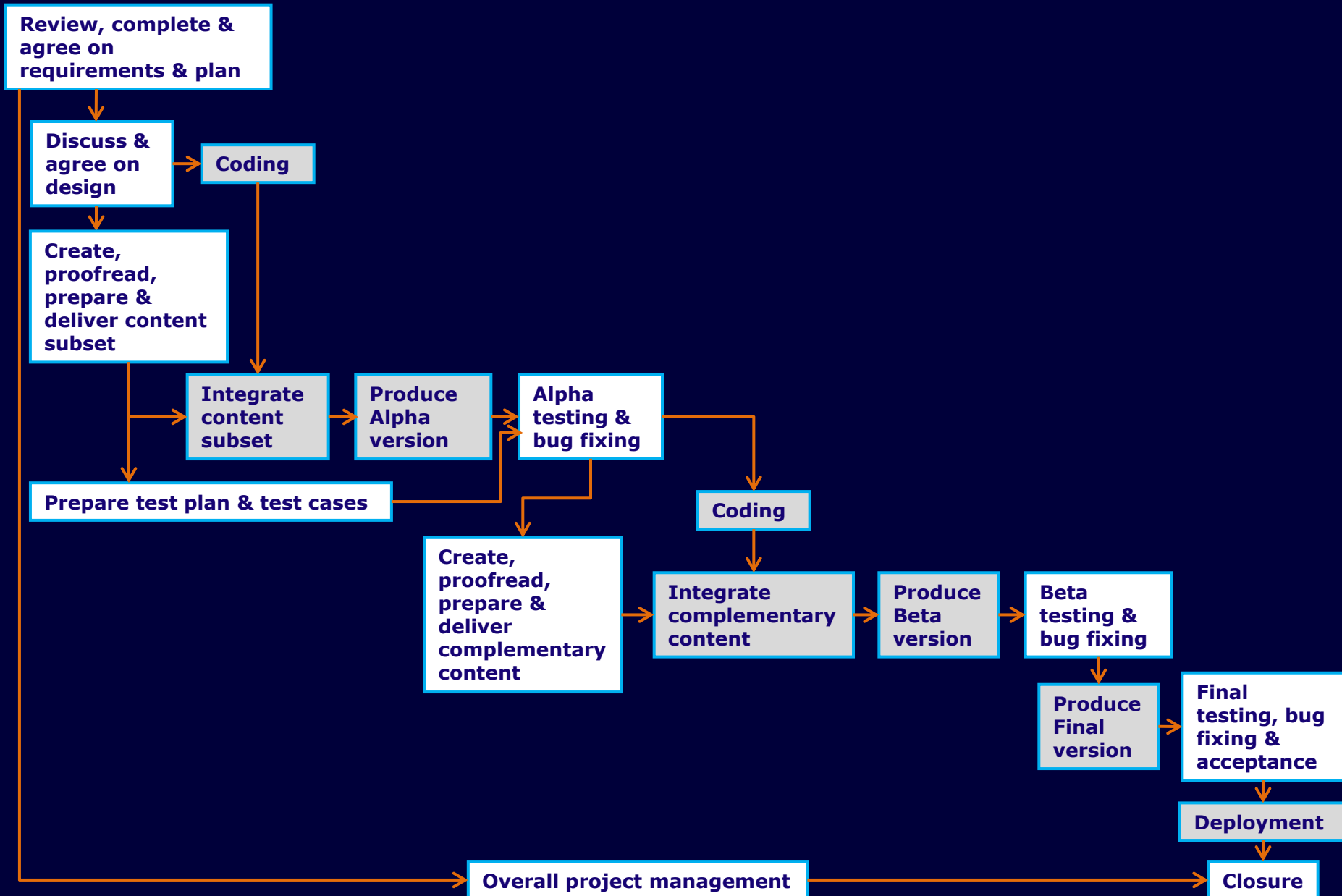


Diagram > Task list | EXONE – Contractor

Review, complete & agree on requirements & plan

Perform & agree on design

Prepare test plan & test cases

Coding

Internal testing & bug fixing

Receive content subset

Integrate content subset

Produce Alpha version

Alpha testing & bug fixing

Coding

Internal testing & bug fixing

Part 2

Receive complementary content

Integrate complementary content

Produce Beta version

Beta testing & bug fixing

Produce Final version

Final testing, bug fixing & acceptance

Deployment

Project management

Closure

PROJECT EXONE (Contractor's WBS)

Part 1

REQUIREMENTS

- Review and complete requirements & plan with client
- Final discussion and agreement with client on req'ts & plan

DESIGN

- Write design specifications
- Check design with respect to requirements
- Meet with client to discuss & agree on design

IMPLEMENTATION

- Coding - Alpha version
- Debugging phase 1 (following internal Alpha testing)
- Production of Alpha version and delivery to client
- Debugging phase 2 (following client Alpha testing)
- Coding - Beta version
- Debugging phase 3 (following internal Beta testing)
- Production of Beta version and delivery to client
- Debugging phase 4 (following client Beta testing)
- Production of Final version and delivery to client
- Debugging phase 5 & delivery (following client Final testing)

INTEGRATION

- Delivery of content subset by client
- Integration of content subset
- Delivery of complementary content by client
- Integration of complementary content

TESTING & ACCEPTANCE

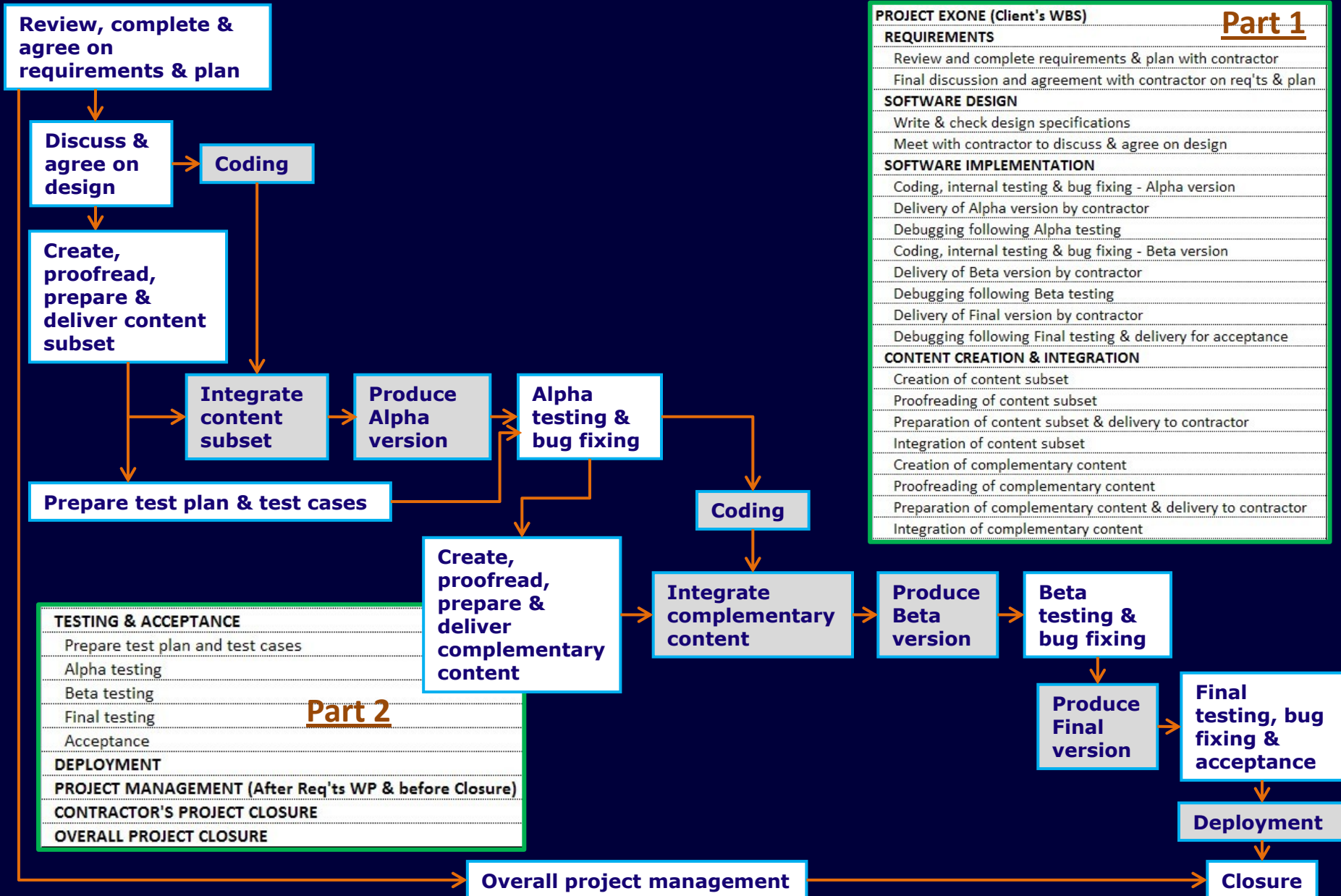
- Prepare test plan and test cases
- Internal testing - Alpha version
- Alpha testing by client
- Internal testing - Beta version
- Beta testing by client
- Final testing by client
- Acceptance by client

DEPLOYMENT AT CLIENT'S SITE

PROJECT MANAGEMENT (After Req'ts WP & before Closure)

PROJECT CLOSURE

Diagram > Task list | EXONE – Client



Task list: EXONE – Contractor

PROJECT EXONE (Contractor's WBS)

REQUIREMENTS

- Review and complete requirements & plan with client
- Final discussion and agreement with client on req'ts & plan

DESIGN

- Write design specifications
- Check design with respect to requirements
- Meet with client to discuss & agree on design

IMPLEMENTATION

- Coding - Alpha version
- Debugging phase 1 (following internal Alpha testing)
- Production of Alpha version and delivery to client
- Debugging phase 2 (following client Alpha testing)
- Coding - Beta version
- Debugging phase 3 (following internal Beta testing)
- Production of Beta version and delivery to client
- Debugging phase 4 (following client Beta testing)
- Production of Final version and delivery to client
- Debugging phase 5 & delivery (following client Final testing)

INTEGRATION

- Delivery of content subset by client
- Integration of content subset
- Delivery of complementary content by client
- Integration of complementary content

TESTING & ACCEPTANCE

- Prepare test plan and test cases
- Internal testing - Alpha version
- Alpha testing by client
- Internal testing - Beta version
- Beta testing by client
- Final testing by client
- Acceptance by client

DEPLOYMENT AT CLIENT'S SITE

PROJECT MANAGEMENT (After Req'ts WP & before Closure)

PROJECT CLOSURE

- Level 1 = Project
- Level 2 = Work packages (WPs)
- Level 3 = Tasks

Task list: EXONE – Client

PROJECT EXONE (Client's WBS)

REQUIREMENTS

- Review and complete requirements & plan with contractor
- Final discussion and agreement with contractor on req'ts & plan

SOFTWARE DESIGN

- Write & check design specifications
- Meet with contractor to discuss & agree on design

SOFTWARE IMPLEMENTATION

- Coding, internal testing & bug fixing - Alpha version
- Delivery of Alpha version by contractor
- Debugging following Alpha testing
- Coding, internal testing & bug fixing - Beta version
- Delivery of Beta version by contractor
- Debugging following Beta testing
- Delivery of Final version by contractor
- Debugging following Final testing & delivery for acceptance

CONTENT CREATION & INTEGRATION

- Creation of content subset
- Proofreading of content subset
- Preparation of content subset & delivery to contractor
- Integration of content subset
- Creation of complementary content
- Proofreading of complementary content
- Preparation of complementary content & delivery to contractor
- Integration of complementary content

TESTING & ACCEPTANCE

- Prepare test plan and test cases
- Alpha testing
- Beta testing
- Final testing
- Acceptance

DEPLOYMENT

PROJECT MANAGEMENT (After Req'ts WP & before Closure)

CONTRACTOR'S PROJECT CLOSURE

OVERALL PROJECT CLOSURE

- Level 1 = Project
- Level 2 = Work packages (WPs)
- Level 3 = Tasks

Task lists: project EXONE (1)

PROJECT EXONE (Contractor's WBS)

REQUIREMENTS

- Review and complete requirements & plan with client
- Final discussion and agreement with client on req'ts & plan

DESIGN

- Write design specifications
- Check design with respect to requirements
- Meet with client to discuss & agree on design

IMPLEMENTATION

- Coding - Alpha version
- Debugging phase 1 (following internal Alpha testing)
- Production of Alpha version and delivery to client
- Debugging phase 2 (following client Alpha testing)
- Coding - Beta version
- Debugging phase 3 (following internal Beta testing)
- Production of Beta version and delivery to client
- Debugging phase 4 (following client Beta testing)
- Production of Final version and delivery to client
- Debugging phase 5 & delivery (following client Final testing)

INTEGRATION

- Delivery of content subset by client
- Integration of content subset
- Delivery of complementary content by client
- Integration of complementary content

TESTING & ACCEPTANCE

- Prepare test plan and test cases
- Internal testing - Alpha version
- Alpha testing by client
- Internal testing - Beta version
- Beta testing by client
- Final testing by client
- Acceptance by client

DEPLOYMENT AT CLIENT'S SITE

PROJECT MANAGEMENT (After Req'ts WP & before Closure)

PROJECT CLOSURE

PROJECT EXONE (Contractor's WBS)

REQUIREMENTS

- Review and complete requirements & plan with client
- Final discussion and agreement with client on req'ts & plan

DESIGN

- Write design specifications
- Check design with respect to requirements
- Meet with client to discuss & agree on design

IMPLEMENTATION, INTEGRATION, TESTING & ACCEPTANCE

- Coding - Alpha version
- Prepare test plan and test cases
- Internal testing - Alpha version
- Debugging phase 1 (following internal Alpha testing)
- Delivery of content subset by client
- Integration of content subset
- Production of Alpha version and delivery to client
- Alpha testing by client
- Debugging phase 2 (following client Alpha testing)
- Coding - Beta version
- Internal testing - Beta version
- Debugging phase 3 (following internal Beta testing)
- Delivery of complementary content by client
- Integration of complementary content
- Production of Beta version and delivery to client
- Beta testing by client
- Debugging phase 4 (following client Beta testing)
- Production of Final version and delivery to client
- Final testing by client
- Debugging phase 5 & delivery (following client Final testing)
- Acceptance by client

DEPLOYMENT AT CLIENT'S SITE

PROJECT MANAGEMENT (After Req'ts WP & before Closure)

PROJECT CLOSURE

Task lists: project EXONE (2)

PROJECT EXONE (Contractor's WBS)

REQUIREMENTS

Suited to MS Project,
not to ProjectLibre

IMPLEMENTATION

- Coding - Alpha version
- Debugging phase 1 (following internal Alpha testing)
- Production of Alpha version and delivery to client
- Debugging phase 2 (following client Alpha testing)
- Coding - Beta version
- Debugging phase 3 (following internal Beta testing)
- Production of Beta version and delivery to client
- Debugging phase 4 (following client Beta testing)
- Production of Final version and delivery to client
- Debugging phase 5 & delivery (following client Final testing)

INTEGRATION

- Delivery of content subset by client
- Integration of content subset
- Delivery of complementary content by client
- Integration of complementary content

TESTING & ACCEPTANCE

- Prepare test plan and test cases
- Internal testing - Alpha version
- Alpha testing by client
- Internal testing - Beta version
- Beta testing by client
- Final testing by client
- Acceptance by client

DEPLOYMENT AT CLIENT'S SITE

PROJECT MANAGEMENT (After Req'ts WP & before Closure)

PROJECT CLOSURE

PROJECT EXONE (Contractor's WBS)

REQUIREMENTS

Suited to MS Project
and to ProjectLibre

Meet with client to discuss & agree on design

IMPLEMENTATION, INTEGRATION, TESTING & ACCEPTANCE

- Coding - Alpha version
- Prepare test plan and test cases
- Internal testing - Alpha version
- Debugging phase 1 (following internal Alpha testing)
- Delivery of content subset by client
- Integration of content subset
- Production of Alpha version and delivery to client
- Alpha testing by client
- Debugging phase 2 (following client Alpha testing)
- Coding - Beta version
- Internal testing - Beta version
- Debugging phase 3 (following internal Beta testing)
- Delivery of complementary content by client
- Integration of complementary content
- Production of Beta version and delivery to client
- Beta testing by client
- Debugging phase 4 (following client Beta testing)
- Production of Final version and delivery to client
- Final testing by client
- Debugging phase 5 & delivery (following client Final testing)
- Acceptance by client

DEPLOYMENT AT CLIENT'S SITE

PROJECT MANAGEMENT (After Req'ts WP & before Closure)

PROJECT CLOSURE

Task lists: project EXONE (3)

PROJECT EXONE (Client's WBS)

REQUIREMENTS

- Review and complete requirements & plan with contractor
- Final discussion and agreement with contractor on req'ts & plan

SOFTWARE DESIGN

- Write & check design specifications
- Meet with contractor to discuss & agree on design

SOFTWARE IMPLEMENTATION

- Coding, internal testing & bug fixing - Alpha version
- Delivery of Alpha version by contractor
- Debugging following Alpha testing
- Coding, internal testing & bug fixing - Beta version
- Delivery of Beta version by contractor
- Debugging following Beta testing
- Delivery of Final version by contractor
- Debugging following Final testing & delivery for acceptance

CONTENT CREATION & INTEGRATION

- Creation of content subset
- Proofreading of content subset
- Preparation of content subset & delivery to contractor
- Integration of content subset
- Creation of complementary content
- Proofreading of complementary content
- Preparation of complementary content & delivery to contractor
- Integration of complementary content

TESTING & ACCEPTANCE

- Prepare test plan and test cases
- Alpha testing
- Beta testing
- Final testing
- Acceptance

DEPLOYMENT

PROJECT MANAGEMENT (After Req'ts WP & before Closure)

CONTRACTOR'S PROJECT CLOSURE

OVERALL PROJECT CLOSURE

PROJECT EXONE (Client's WBS)

REQUIREMENTS

- Review and complete requirements & plan with contractor
- Final discussion and agreement with contractor on req'ts & plan

SOFTWARE DESIGN

- Write & check design specifications
- Meet with contractor to discuss & agree on design

IMPLEMENTATION, INTEGRATION, TESTING & ACCEPTANCE

- Coding, internal testing & bug fixing - Alpha version
- Creation of content subset
- Prepare test plan and test cases
- Proofreading of content subset
- Preparation of content subset & delivery to contractor
- Integration of content subset
- Delivery of Alpha version by contractor
- Alpha testing
- Creation of complementary content
- Proofreading of complementary content
- Debugging following Alpha testing
- Coding, internal testing & bug fixing - Beta version
- Preparation of complementary content & delivery to contractor
- Integration of complementary content
- Delivery of Beta version by contractor
- Beta testing
- Debugging following Beta testing
- Delivery of Final version by contractor
- Final testing
- Debugging following Final testing & delivery for acceptance
- Acceptance

DEPLOYMENT

PROJECT MANAGEMENT (After Req'ts WP & before Closure)

CONTRACTOR'S PROJECT CLOSURE

OVERALL PROJECT CLOSURE



Task lists: project EXONE (4)

PROJECT EXONE (Client's WBS)

Suited to MS Project,
not to ProjectLibre

SOFTWARE IMPLEMENTATION

- Coding, internal testing & bug fixing - Alpha version
- Delivery of Alpha version by contractor
- Debugging following Alpha testing
- Coding, internal testing & bug fixing - Beta version
- Delivery of Beta version by contractor
- Debugging following Beta testing
- Delivery of Final version by contractor
- Debugging following Final testing & delivery for acceptance

CONTENT CREATION & INTEGRATION

- Creation of content subset
- Proofreading of content subset
- Preparation of content subset & delivery to contractor
- Integration of content subset
- Creation of complementary content
- Proofreading of complementary content
- Preparation of complementary content & delivery to contractor
- Integration of complementary content

TESTING & ACCEPTANCE

- Prepare test plan and test cases
- Alpha testing
- Beta testing
- Final testing
- Acceptance

DEPLOYMENT

PROJECT MANAGEMENT (After Req'ts WP & before Closure)

CONTRACTOR'S PROJECT CLOSURE

OVERALL PROJECT CLOSURE

PROJECT EXONE (Client's WBS)

Suited to MS Project
and to ProjectLibre

IMPLEMENTATION, INTEGRATION, TESTING & ACCEPTANCE

- Coding, internal testing & bug fixing - Alpha version
- Creation of content subset
- Prepare test plan and test cases
- Proofreading of content subset
- Preparation of content subset & delivery to contractor
- Integration of content subset
- Delivery of Alpha version by contractor
- Alpha testing
- Creation of complementary content
- Proofreading of complementary content
- Debugging following Alpha testing
- Coding, internal testing & bug fixing - Beta version
- Preparation of complementary content & delivery to contractor
- Integration of complementary content
- Delivery of Beta version by contractor
- Beta testing
- Debugging following Beta testing
- Delivery of Final version by contractor
- Final testing
- Debugging following Final testing & delivery for acceptance
- Acceptance

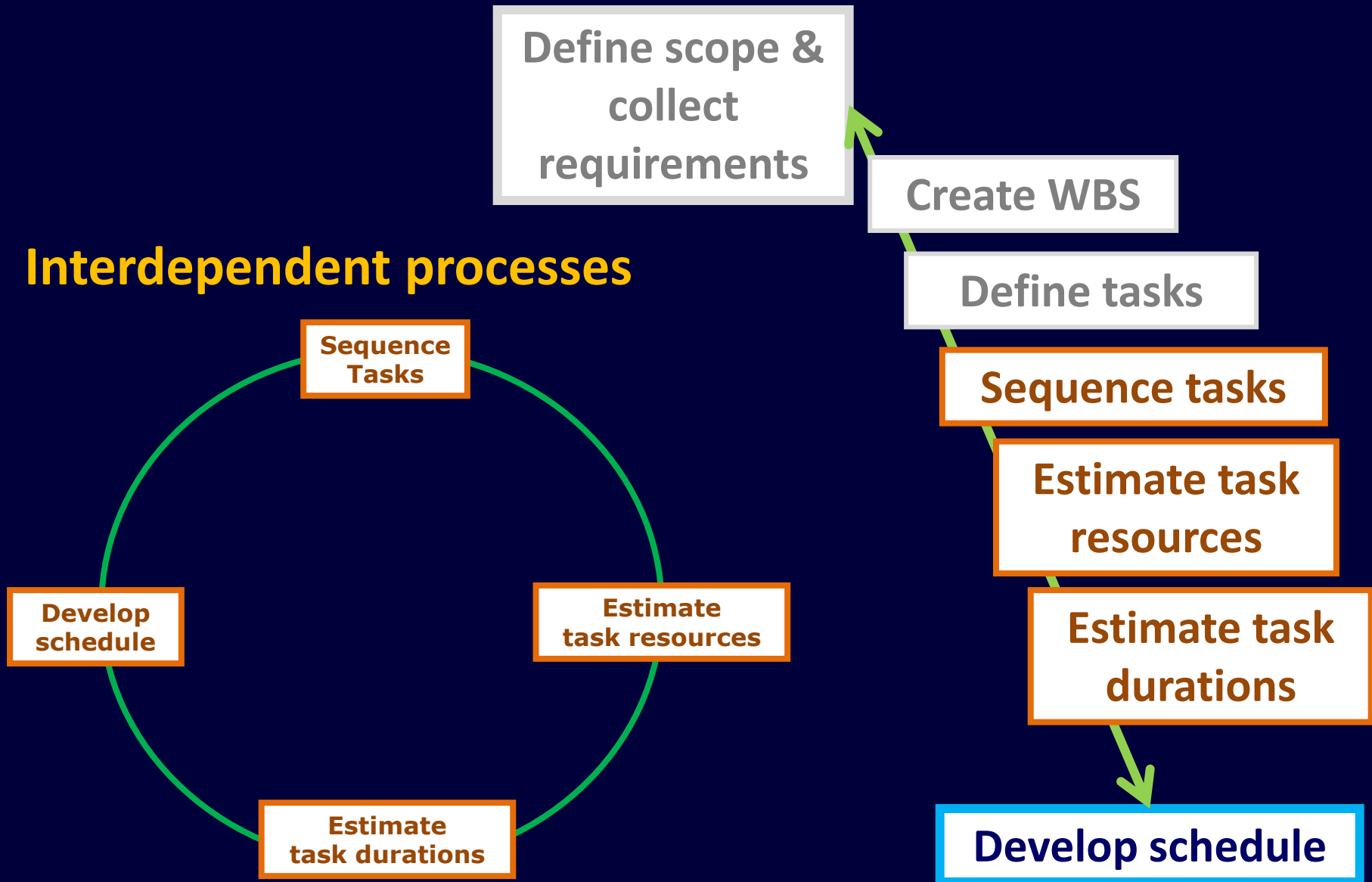
DEPLOYMENT

PROJECT MANAGEMENT (After Req'ts WP & before Closure)

CONTRACTOR'S PROJECT CLOSURE

OVERALL PROJECT CLOSURE

Sequence, resources, durations, schedule



Task sequencing: EXONE – Contractor (1)

MS Project

WBS	Task Name	Predecessors
1	1 PROJECT EXONE	
2	1.1 REQUIREMENTS	
3	1.1.1 Review and complete requirements & plan with client	
4	1.1.2 Final discussion and agreement with client on req'ts & plan	3
5	1.2 DESIGN	
6	1.2.1 Write design specifications	4
7	1.2.2 Check design with respect to requirements	6
8	1.2.3 Meet with client to discuss & agree on design	7
9	1.3 IMPLEMENTATION	
10	1.3.1 Coding - Alpha version	8
11	1.3.2 Debugging phase 1 (following internal Alpha testing)	27; 10
12	1.3.3 Production of Alpha version and delivery to client	22
13	1.3.4 Debugging phase 2 (following client Alpha testing)	28
14	1.3.5 Coding - Beta version	13
15	1.3.6 Debugging phase 3 (following internal Beta testing)	29; 14
16	1.3.7 Production of Beta version and delivery to client	24
17	1.3.8 Debugging phase 4 (following client Beta testing)	30
18	1.3.9 Production of Final version and delivery to client	17
19	1.3.10 Debugging phase 5 & delivery (following client Final testing)	31
20	1.4 INTEGRATION	
21	1.4.1 Delivery of content subset by client	11FF-2 days
22	1.4.2 Integration of content subset	21; 11
23	1.4.3 Delivery of complementary content by client	15FF-2 days
24	1.4.4 Integration of complementary content	23; 15
25	1.5 TESTING & ACCEPTANCE	
26	1.5.1 Prepare test plan and test cases	8
27	1.5.2 Internal testing - Alpha version	10SS+3 days; 26
28	1.5.3 Alpha testing by client	12
29	1.5.4 Internal testing - Beta version	14SS+5 days
30	1.5.5 Beta testing by client	16
31	1.5.6 Final testing by client	18
32	1.5.7 Acceptance by client	19
33	1.6 DEPLOYMENT AT CLIENT'S SITE	32
34	1.7 PROJECT MANAGEMENT (After Req'ts WP & before Closure)	2; 33FF
35	1.8 PROJECT CLOSURE	34

Task sequencing: EXONE – Contractor (2)

	WBS	Nom	Prédécesseurs
1	1	PROJECT EXONE	
2	1.1	REQUIREMENTS	
3	1.1.1	Review and complete requirements & plan with client	
4	1.1.3	Final discussion and agreement with client on req'ts & plan	3
5	1.2	DESIGN	
6	1.2.1	Write design specifications	4
7	1.2.2	Check design with respect to requirements	6
8	1.2.3	Meet with client to discuss & agree on design	7
9	1.3	IMPLEMENTATION, INTEGRATION, TESTING & ACCEPTANCE	
10	1.3.1	Coding - Alpha version	8
11	1.3.2	Prepare test plan and test cases	8
12	1.3.3	Internal testing - Alpha version	10;5+3 jours;11
13	1.3.4	Debugging phase 1 (following internal Alpha testing)	10;12
14	1.3.5	Delivery of content subset by client	13;FF-2 jours
15	1.3.6	Integration of content subset	13;14
16	1.3.7	Production of Alpha version and delivery to client	15
17	1.3.8	Alpha testing by client	16
18	1.3.9	Debugging phase 2 (following client Alpha testing)	17
19	1.3.10	Coding - Beta version	18
20	1.3.11	Internal testing - Beta version	19;5+5 jours
21	1.3.12	Debugging phase 3 (following internal Beta testing)	19;20
22	1.3.13	Delivery of complementary content by client	21;FF-2 jours
23	1.3.14	Integration of complementary content	21;22
24	1.3.15	Production of Beta version and delivery to client	23
25	1.3.16	Beta testing by client	24
26	1.3.17	Debugging phase 4 (following client Beta testing)	25
27	1.3.18	Production of Final version and delivery to client	26
28	1.3.19	Final testing by client	27
29	1.3.20	Debugging phase 5 and delivery (following client Final testing)	28
30	1.3.21	Acceptance by client	29
31	1.4	DEPLOYMENT AT CLIENT'S SITE	30
32	1.5	PROJECT MANAGEMENT (After Req'ts WP & before Closure)	2;31;FF
33	1.6	PROJECT CLOSURE	32

ProjectLibre

Task sequencing: EXONE – Client (1)

MS Project

	WBS	Task Name	Predecessors
1	1	PROJECT EXONE	
2	1.1	REQUIREMENTS	
3	1.1.1	Review and complete requirements & plan with contractor	
4	1.1.2	Final discussion and agreement with contractor on req'ts & plan	3
5	1.2	SOFTWARE DESIGN	
6	1.2.1	Write and check design specifications	4
7	1.2.2	Meet with contractor to discuss & agree on design	6
8	1.3	SOFTWARE IMPLEMENTATION	
9	1.3.1	Coding, internal testing & bug fixing - Alpha version	7
10	1.3.2	Delivery of Alpha version by contractor	21
11	1.3.3	Debugging following Alpha testing	28
12	1.3.4	Coding, internal testing & bug fixing - Beta version	11
13	1.3.5	Delivery of Beta version by contractor	25;12
14	1.3.6	Debugging following Beta testing	29
15	1.3.7	Delivery of Final version by contractor	14
16	1.3.8	Debugging following Final testing & delivery for acceptance	30
17	1.4	CONTENT CREATION & INTEGRATION	
18	1.4.1	Creation of content subset	7
19	1.4.2	Proofreading of content subset	18SS+4 days
20	1.4.3	Preparation of content subset & delivery to contractor	9FF-2 days;19
21	1.4.4	Integration of content subset	20;9
22	1.4.5	Creation of complementary content	28
23	1.4.6	Proofreading of complementary content	22SS+4 days
24	1.4.7	Preparation of complementary content & delivery to contractor	12FF-2 days;23
25	1.4.8	Integration of complementary content	24;12
26	1.5	TESTING & ACCEPTANCE	
27	1.5.1	Prepare test plan and test cases	18
28	1.5.2	Alpha testing	10;27
29	1.5.3	Beta testing	13
30	1.5.4	Final testing	15
31	1.5.5	Acceptance	16
32	1.6	DEPLOYMENT	31
33	1.7	PROJECT MANAGEMENT (After Req'ts WP & before Closure)	2;32FF
34	1.8	CONTRACTOR'S PROJECT CLOSURE	33
35	1.9	OVERALL PROJECT CLOSURE	34

Task sequencing: EXONE – Client (2)

	WBS	Nom	Prédécesseurs
1	1	☐PROJECT EXONE	
2	1.1	☐REQUIREMENTS	
3	1.1.1	Review and complete requirements & plan with contractor	
4	1.1.3	Final discussion and agreement with contractor on req'ts & plan	3
5	1.2	☐SOFTWARE DESIGN	
6	1.2.1	Write & check design specifications	4
7	1.2.3	Meet with contractor to discuss & agree on design	6
8	1.3	☐IMPLEMENTATION, INTEGRATION, TESTING & ACCEPTANCE	
9	1.3.1	Coding, internal testing & bug fixing - Alpha version	7
10	1.3.2	Creation of content subset	7
11	1.3.3	Prepare test plan and test cases	10
12	1.3.4	Proofreading of content subset	1055+4 jours
13	1.3.5	Preparation of content subset & delivery to contractor	9FF-2 jours;12
14	1.3.6	Integration of content subset	9;13
15	1.3.7	Delivery of Alpha version by contractor	14
16	1.3.8	Alpha testing	15
17	1.3.9	Creation of complementary content	16
18	1.3.10	Proofreading of complementary content	1755+4 jours
19	1.3.11	Debugging following Alpha testing	16
20	1.3.12	Coding, internal testing & bug fixing - Beta version	19
21	1.3.13	Preparation of complementary content & delivery to contractor	18;20FF-2 jours
22	1.3.14	Integration of complementary content	20;21
23	1.3.15	Delivery of Beta version by contractor	22
24	1.3.16	Beta testing	23
25	1.3.17	Debugging following Beta testing	24
26	1.3.18	Delivery of Final version by contractor	25
27	1.3.19	Final testing	26
28	1.3.20	Debugging following Final testing & delivery for acceptance	27
29	1.3.21	Acceptance	28
30	1.4	DEPLOYMENT	29
31	1.5	PROJECT MANAGEMENT (After Req'ts WP & before Closure)	2;30FF
32	1.6	CONTRACTOR'S PROJECT CLOSURE	31
33	1.7	OVERALL PROJECT CLOSURE	32

ProjectLibre

SS & FF / Lag & Lead: EXONE – Contractor

WBS	Task Name	Predecessors
1	1 PROJECT EXONE	
2	1.1 REQUIREMENTS	
3	1.1.1 Review and complete requirements & plan with client	
4	1.1.2 Final discussion and agreement with client on req'ts & plan	3
5	1.2 DESIGN	
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14	1.3.5 Coding - Beta version	13
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18	1.3.9 Production of Final version and delivery to client	17
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20	1.4 INTEGRATION	
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31	1.5.6 Final testing by client	18
32	1.5.7 Acceptance by client	19
33	1.6 DEPLOYMENT AT CLIENT'S SITE	32
34	1.7 PROJECT MANAGEMENT (After Req'ts WP & before Closure)	2; 33FF
35	1.8 PROJECT CLOSURE	34

SS & FF / Lag & Lead: EXONE – Client

	WBS	Task Name	Predecessors
1	1	PROJECT EXONE	
2	1.1	REQUIREMENTS	
3	1.1.1	Review and complete requirements & plan with contractor	
4	1.1.2	Final discussion and agreement with contractor on req'ts & plan	3
5	1.2	SOFTWARE DESIGN	
6	1.2.1	Write and check design specifications	4
7	1.2.2	Meet with contractor to discuss & agree on design	6
8	1.3	SOFTWARE IMPLEMENTATION	
9	1.3.1	Coding, internal testing & bug fixing - Alpha version	7
10	1.3.2	Delivery of Alpha version by contractor	21
11	1.3.3	Debugging following Alpha testing	28
12	1.3.4	Coding, internal testing & bug fixing - Beta version	11
13	1.3.5	Delivery of Beta version by contractor	25;12
14	1.3.6	Debugging following Beta testing	29
15	1.3.7	Delivery of Final version by contractor	14
16	1.3.8	Debugging following Final testing & delivery for acceptance	30
17	1.4	CONTENT CREATION & INTEGRATION	
18	1.4.1	Creation of content subset	7
19	1.4.2	Proofreading of content subset	18SS+4 days
20	1.4.3	Preparation of content subset & delivery to contractor	9FF-2 days;19
21	1.4.4	Integration of content subset	28;9
22	1.4.5	Creation of complementary content	28
23	1.4.6	Proofreading of complementary content	22SS+4 days
24	1.4.7	Preparation of complementary content & delivery to contractor	12FF-2 days;23
25	1.4.8	Integration of complementary content	24;12
26	1.5	TESTING & ACCEPTANCE	
27	1.5.1	Prepare test plan and test cases	18
28	1.5.2	Alpha testing	10;27
29	1.5.3	Beta testing	13
30	1.5.4	Final testing	15
31	1.5.5	Acceptance	16
32	1.6	DEPLOYMENT	21
33	1.7	PROJECT MANAGEMENT (After Req'ts WP & before Closure)	2;32FF
34	1.8	CONTRACTOR'S PROJECT CLOSURE	33
35	1.9	OVERALL PROJECT CLOSURE	34

Resource sheet: EXONE – Contractor

Project manager
Senior technical consultant
Junior technical consultant
Developer 1
Developer 2
Tester 1
Tester 2
Client

Resource Name ▼	Type ▼	Max. Units ▼
PM	Work	100%
STC	Work	100%
JTC	Work	100%
DVPR1	Work	100%
DVPR2	Work	100%
TSTR1	Work	100%
TSTR2	Work	100%
CLT	Work	100%
TRAVEL	Cost	

➤ **Recommendation:** use abbreviations!

Resource sheet: EXONE – Client

Overall project manager

Editor 1

Editor 2

Editor 3

Editor 4

Data engineer

Proofreader 1

Proofreader 2

Testing service provider

Contractor

Resource Name	Type	Max. Units
OPM	Work	100%
EDTR1	Work	100%
EDTR2	Work	100%
EDTR3	Work	100%
EDTR4	Work	100%
DATENG	Work	100%
PRFRDR1	Work	100%
PRFRDR2	Work	100%
TSTSP	Work	100%
CTR	Work	100%
CTR_COST	Cost	
HW	Material	
MMLIC	Material	
TRAVEL	Cost	

Resource assignment: EXONE – Contractor

	WBS	Task Name	Predecessors	Resource Names
1	1	PROJECT EXONE		
2	1.1	REQUIREMENTS		
3	1.1.1	Review and complete requirements & plan with client		STC;DVPR1;CLT;PM
4	1.1.2	Final discussion and agreement with client on req'ts & plan	3	CLT;PM
5	1.2	DESIGN		
6	1.2.1	Write design specifications	4	DVPR1;STC
7	1.2.2	Check design with respect to requirements	6	DVPR1;STC;PM[50%]
8	1.2.3	Meet with client to discuss & agree on design	7	STC;PM[50%];DVPR1;CLT
9	1.3	IMPLEMENTATION		
10	1.3.1	Coding - Alpha version	8	DVPR2;DVPR1
11	1.3.2	Debugging phase 1 (following internal Alpha testing)	27; 10	DVPR2;DVPR1
12	1.3.3	Production of Alpha version and delivery to client	22	DVPR2
13	1.3.4	Debugging phase 2 (following client Alpha testing)	28	DVPR1;DVPR2
14	1.3.5	Coding - Beta version	13	DVPR2;DVPR1
15	1.3.6	Debugging phase 3 (following internal Beta testing)	29; 14	DVPR2;DVPR1
16	1.3.7	Production of Beta version and delivery to client	24	DVPR2
17	1.3.8	Debugging phase 4 (following client Beta testing)	30	DVPR1;DVPR2
18	1.3.9	Production of Final version and delivery to client	17	DVPR2
19	1.3.10	Debugging phase 5 & delivery (following client Final testing)	31	DVPR2;DVPR1
20	1.4	INTEGRATION		
21	1.4.1	Delivery of content subset by client	11FF-2 days	CLT
22	1.4.2	Integration of content subset	21; 11	DVPR2
23	1.4.3	Delivery of complementary content by client	15FF-2 days	CLT
24	1.4.4	Integration of complementary content	23; 15	DVPR2
25	1.5	TESTING & ACCEPTANCE		
26	1.5.1	Prepare test plan and test cases	8	STC[50%];JTC
27	1.5.2	Internal testing - Alpha version	10SS+3 days; 26	TSTR1; TSTR2
28	1.5.3	Alpha testing by client	12	CLT
29	1.5.4	Internal testing - Beta version	14SS+5 days	TSTR1; TSTR2
30	1.5.5	Beta testing by client	16	CLT
31	1.5.6	Final testing by client	18	CLT
32	1.5.7	Acceptance by client	19	CLT
33	1.6	DEPLOYMENT AT CLIENT'S SITE	32	DVPR2;JTC; TRAVEL[€ 750.00]
34	1.7	PROJECT MANAGEMENT (After Req'ts WP & before Closure)	2;33FF	PM[50%]
35	1.8	PROJECT CLOSURE	34	DVPR1;PM;STC; TSTR1;CLT[50%]

Resource assignment: EXONE – Client

	WBS	Task Name	Predecessors	Resource Names
1	1	PROJECT EXONE		
2	1.1	REQUIREMENTS		
3	1.1.1	Review and complete requirements & plan with contractor		CTR; OPM; DATENG; TRAVEL[€ 1,000.00]
4	1.1.2	Final discussion and agreement with contractor on req'ts & plan	3	CTR; OPM
5	1.2	SOFTWARE DESIGN		
6	1.2.1	Write and check design specifications	4	CTR
7	1.2.2	Meet with contractor to discuss & agree on design	6	OPM[50%]; CTR; TRAVEL[€ 400.00]
8	1.3	SOFTWARE IMPLEMENTATION		
9	1.3.1	Coding, internal testing & bug fixing - Alpha version	7	CTR
10	1.3.2	Delivery of Alpha version by contractor	21	CTR
11	1.3.3	Debugging following Alpha testing	28	CTR
12	1.3.4	Coding, internal testing & bug fixing - Beta version	11	CTR
13	1.3.5	Delivery of Beta version by contractor	25; 12	CTR
14	1.3.6	Debugging following Beta testing	29	CTR
15	1.3.7	Delivery of Final version by contractor	14	CTR
16	1.3.8	Debugging following Final testing & delivery for acceptance	30	CTR
17	1.4	CONTENT CREATION & INTEGRATION		
18	1.4.1	Creation of content subset	7	EDTR1; EDTR2; EDTR3; EDTR4
19	1.4.2	Proofreading of content subset	18SS+4 days	PRFRDR1; PRFRDR2
20	1.4.3	Preparation of content subset & delivery to contractor	9FF-2 days; 19	DATENG
21	1.4.4	Integration of content subset	20; 9	CTR
22	1.4.5	Creation of complementary content	28	EDTR1; EDTR2; EDTR3; EDTR4
23	1.4.6	Proofreading of complementary content	22SS+4 days	PRFRDR1; PRFRDR2
24	1.4.7	Preparation of complementary content & delivery to contractor	12FF-2 days; 23	DATENG
25	1.4.8	Integration of complementary content	24; 12	CTR
26	1.5	TESTING & ACCEPTANCE		
27	1.5.1	Prepare test plan and test cases	18	EDTR1; EDTR2
28	1.5.2	Alpha testing	10; 27	EDTR3; EDTR4
29	1.5.3	Beta testing	13	EDTR3; EDTR4; TSTSP
30	1.5.4	Final testing	15	EDTR3; EDTR4; TSTSP[50%]
31	1.5.5	Acceptance	16	OPM[50%]; EDTR1; EDTR2; EDTR3; EDTR4
32	1.6	DEPLOYMENT	31	CTR
33	1.7	PROJECT MANAGEMENT (After Req'ts WP & before Closure)	2; 32FF	OPM[50%]
34	1.8	CONTRACTOR'S PROJECT CLOSURE	33	OPM[50%]; CTR; TRAVEL[€ 250.00]
35	1.9	OVERALL PROJECT CLOSURE	34	DATENG; EDTR1; EDTR3; OPM; EDTR2; EDTR4

Part-time work: EXONE – Contractor

	WBS	Task Name	Predecessors	Resource Names
1	1	PROJECT EXONE		
2	1.1	REQUIREMENTS		
3	1.1.1	Review and complete requirements & plan with client		STC;DVPR1;CLT;PM
4	1.1.2	Final discussion and agreement with client on req'ts & plan	3	CLT;PM
5	1.2	DESIGN		
6	1.2.1	Write design specifications	4	DVPR1;STC
7	1.2.2	Check design with respect to requirements	6	DVPR1;STC;PM[50%]
8	1.2.3	Meet with client to discuss & agree on design	7	STC;PM[50%];DVPR1;CLT
9	1.3	IMPLEMENTATION		
10	1.3.1	Coding - Alpha version	8	DVPR2;DVPR1
11	1.3.2	Debugging phase 1 (following internal Alpha testing)	27; 10	DVPR2;DVPR1
12	1.3.3	Production of Alpha version and delivery to client	22	DVPR2
13	1.3.4	Debugging phase 2 (following client Alpha testing)	28	DVPR1;DVPR2
14	1.3.5	Coding - Beta version	13	DVPR2;DVPR1
15	1.3.6	Debugging phase 3 (following internal Beta testing)	29; 14	DVPR2;DVPR1
16	1.3.7	Production of Beta version and delivery to client	24	DVPR2
17	1.3.8	Debugging phase 4 (following client Beta testing)	30	DVPR1;DVPR2
18	1.3.9	Production of Final version and delivery to client	17	DVPR2
19	1.3.10	Debugging phase 5 & delivery (following client Final testing)	31	DVPR2;DVPR1
20	1.4	INTEGRATION		
21	1.4.1	Delivery of content subset by client	11FF-2 days	CLT
22	1.4.2	Integration of content subset	21; 11	DVPR2
23	1.4.3	Delivery of complementary content by client	15FF-2 days	CLT
24	1.4.4	Integration of complementary content	23; 15	DVPR2
25	1.5	TESTING & ACCEPTANCE		
26	1.5.1	Prepare test plan and test cases	8	STC[50%];JTC
27	1.5.2	Internal testing - Alpha version	10SS+3 days; 26	TSTR1;TSTR2
28	1.5.3	Alpha testing by client	12	CLT
29	1.5.4	Internal testing - Beta version	14SS+5 days	TSTR1;TSTR2
30	1.5.5	Beta testing by client	16	CLT
31	1.5.6	Final testing by client	18	CLT
32	1.5.7	Acceptance by client	19	CLT
33	1.6	DEPLOYMENT AT CLIENT'S SITE	32	DVPR2;JTC;TRAVEL[€ 750.00]
34	1.7	PROJECT MANAGEMENT (After Req'ts WP & before Closure)	2;33FF	PM[50%]
35	1.8	PROJECT CLOSURE	34	DVPR1;PM;STC;TSTR1;CLT[50%]

Part-time work: EXONE – Client

	WBS	Task Name	Predecessors	Resource Names
1	1	PROJECT EXONE		
2	1.1	REQUIREMENTS		
3	1.1.1	Review and complete requirements & plan with contractor		CTR; OPM; DATENG; TRAVEL[€ 1,000.00]
4	1.1.2	Final discussion and agreement with contractor on req'ts & plan	3	CTR; OPM
5	1.2	SOFTWARE DESIGN		
6	1.2.1	Write and check design specifications	4	CTR
7	1.2.2	Meet with contractor to discuss & agree on design	6	OPM[50%]; CTR; TRAVEL[€ 400.00]
8	1.3	SOFTWARE IMPLEMENTATION		
9	1.3.1	Coding, internal testing & bug fixing - Alpha version	7	CTR
10	1.3.2	Delivery of Alpha version by contractor	21	CTR
11	1.3.3	Debugging following Alpha testing	28	CTR
12	1.3.4	Coding, internal testing & bug fixing - Beta version	11	CTR
13	1.3.5	Delivery of Beta version by contractor	25; 12	CTR
14	1.3.6	Debugging following Beta testing	29	CTR
15	1.3.7	Delivery of Final version by contractor	14	CTR
16	1.3.8	Debugging following Final testing & delivery for acceptance	30	CTR
17	1.4	CONTENT CREATION & INTEGRATION		
18	1.4.1	Creation of content subset	7	EDTR1; EDTR2; EDTR3; EDTR4
19	1.4.2	Proofreading of content subset	18SS+4 days	PRFRDR1; PRFRDR2
20	1.4.3	Preparation of content subset & delivery to contractor	9FF-2 days; 19	DATENG
21	1.4.4	Integration of content subset	20; 9	CTR
22	1.4.5	Creation of complementary content	28	EDTR1; EDTR2; EDTR3; EDTR4
23	1.4.6	Proofreading of complementary content	22SS+4 days	PRFRDR1; PRFRDR2
24	1.4.7	Preparation of complementary content & delivery to contractor	12FF-2 days; 23	DATENG
25	1.4.8	Integration of complementary content	24; 12	CTR
26	1.5	TESTING & ACCEPTANCE		
27	1.5.1	Prepare test plan and test cases	18	EDTR1; EDTR2
28	1.5.2	Alpha testing	10; 27	EDTR3; EDTR4
29	1.5.3	Beta testing	13	EDTR3; EDTR4; TSTSP
30	1.5.4	Final testing	15	EDTR3; EDTR4; TSTSP[50%]
31	1.5.5	Acceptance	16	OPM[50%]; EDTR1; EDTR2; EDTR3; EDTR4
32	1.6	DEPLOYMENT	31	CTR
33	1.7	PROJECT MANAGEMENT (After Req'ts WP & before Closure)	2; 32FF	OPM[50%]
34	1.8	CONTRACTOR'S PROJECT CLOSURE	33	OPM[50%]; CTR; TRAVEL[€ 250.00]
35	1.9	OVERALL PROJECT CLOSURE	34	DATENG; EDTR1; EDTR3; OPM; EDTR2; EDTR4

Duration & Workload: EXONE – Contractor

	WBS	Task Name	Predecessors	Resource Names	Duration	Work
1	1	PROJECT EXONE			65 days	177 days
2	1.1	REQUIREMENTS			4 days	14 days
3	1.1.1	Review and complete requirements & plan with client		STC;DVPR1;CLT;PM	3 days	12 days
4	1.1.2	Final discussion and agreement with client on req'ts & plan	3	CLT;PM	1 day	2 days
5	1.2	DESIGN			11 days	26 days
6	1.2.1	Write design specifications	4	DVPR1;STC	7 days	14 days
7	1.2.2	Check design with respect to requirements	6	DVPR1;STC;PM[50%]	2 days	5 days
8	1.2.3	Meet with client to discuss & agree on design	7	STC;PM[50%];DVPR1;CLT	2 days	7 days
9	1.3	IMPLEMENTATION			46 days	61 days
10	1.3.1	Coding - Alpha version	8	DVPR2;DVPR1	7 days	14 days
11	1.3.2	Debugging phase 1 (following internal Alpha testing)	27; 10	DVPR2;DVPR1	3 days	6 days
12	1.3.3	Production of Alpha version and delivery to client	22	DVPR2	1 day	1 day
13	1.3.4	Debugging phase 2 (following client Alpha testing)	28	DVPR1;DVPR2	2 days	4 days
14	1.3.5	Coding - Beta version	13	DVPR2;DVPR1	8 days	16 days
15	1.3.6	Debugging phase 3 (following internal Beta testing)	29; 14	DVPR2;DVPR1	3 days	6 days
16	1.3.7	Production of Beta version and delivery to client	24	DVPR2	1 day	1 day
17	1.3.8	Debugging phase 4 (following client Beta testing)	30	DVPR1;DVPR2	4 days	8 days
18	1.3.9	Production of Final version and delivery to client	17	DVPR2	1 day	1 day
19	1.3.10	Debugging phase 5 & delivery (following client Final testing)	31	DVPR2;DVPR1	2 days	4 days
20	1.4	INTEGRATION			23 days	5 days
21	1.4.1	Delivery of content subset by client	11FF-2 days	CLT	1 day	1 day
22	1.4.2	Integration of content subset	21; 11	DVPR2	1 day	1 day
23	1.4.3	Delivery of complementary content by client	15FF-2 days	CLT	1 day	1 day
24	1.4.4	Integration of complementary content	23; 15	DVPR2	2 days	2 days
25	1.5	TESTING & ACCEPTANCE			47 days	32.5 days
26	1.5.1	Prepare test plan and test cases	8	STC[50%];JTC	5 days	7.5 days
27	1.5.2	Internal testing - Alpha version	10SS+3 days;26	TSTR1;TSTR2	4 days	8 days
28	1.5.3	Alpha testing by client	12	CLT	2 days	2 days
29	1.5.4	Internal testing - Beta version	14SS+5 days	TSTR1;TSTR2	4 days	8 days
30	1.5.5	Beta testing by client	16	CLT	4 days	4 days
31	1.5.6	Final testing by client	18	CLT	2 days	2 days
32	1.5.7	Acceptance by client	19	CLT	1 day	1 day
33	1.6	DEPLOYMENT AT CLIENT'S SITE	32	DVPR2;JTC;TRAVEL[€ 750.00]	2 days	4 days
34	1.7	PROJECT MANAGEMENT (After Req'ts WP & before Closure)	2; 33FF	PM[50%]	60 days	30 days
35	1.8	PROJECT CLOSURE	34	DVPR1;PM;STC;TSTR1;CLT[50%]	1 day	4.5 days

Duration & Workload: EXONE – Client

	WBS	Task Name	Predecessors	Resource Names	Duration	Work
1	1	PROJECT EXONE			66 days	200 days
2	1.1	REQUIREMENTS			4 days	11 days
3	1.1.1	Review and complete requirements & plan with contractor		CTR;OPM;DATENG;TRAVEL[€ 1,000.00]	3 days	9 days
4	1.1.2	Final discussion and agreement with contractor on req'ts & plan	3	CTR;OPM	1 day	2 days
5	1.2	SOFTWARE DESIGN			11 days	12 days
6	1.2.1	Write and check design specifications	4	CTR	9 days	9 days
7	1.2.2	Meet with contractor to discuss & agree on design	6	OPM[50%];CTR;TRAVEL[€ 400.00]	2 days	3 days
8	1.3	SOFTWARE IMPLEMENTATION			46 days	35 days
9	1.3.1	Coding, internal testing & bug fixing - Alpha version	7	CTR	12 days	12 days
10	1.3.2	Delivery of Alpha version by contractor	21	CTR	1 day	1 day
11	1.3.3	Debugging following Alpha testing	28	CTR	2 days	2 days
12	1.3.4	Coding, internal testing & bug fixing - Beta version	11	CTR	12 days	12 days
13	1.3.5	Delivery of Beta version by contractor	25;12	CTR	1 day	1 day
14	1.3.6	Debugging following Beta testing	29	CTR	4 days	4 days
15	1.3.7	Delivery of Final version by contractor	14	CTR	1 day	1 day
16	1.3.8	Debugging following Final testing & delivery for acceptance	30	CTR	2 days	2 days
17	1.4	CONTENT CREATION & INTEGRATION			32 days	69 days
18	1.4.1	Creation of content subset	7	EDTR1;EDTR2;EDTR3;EDTR4	6 days	24 days
19	1.4.2	Proofreading of content subset	18SS+4 days	PRFRDR1;PRFRDR2	3 days	6 days
20	1.4.3	Preparation of content subset & delivery to contractor	9FF-2 days;19	DATENG	3 days	3 days
21	1.4.4	Integration of content subset	20;9	CTR	1 day	1 day
22	1.4.5	Creation of complementary content	28	EDTR1;EDTR2;EDTR3;EDTR4	6 days	24 days
23	1.4.6	Proofreading of complementary content	22SS+4 days	PRFRDR1;PRFRDR2	3 days	6 days
24	1.4.7	Preparation of complementary content & delivery to contractor	12FF-2 days;23	DATENG	3 days	3 days
25	1.4.8	Integration of complementary content	24;12	CTR	2 days	2 days
26	1.5	TESTING & ACCEPTANCE			41 days	33.5 days
27	1.5.1	Prepare test plan and test cases	18	EDTR1;EDTR2	4 days	8 days
28	1.5.2	Alpha testing	10;27	EDTR3;EDTR4	2 days	4 days
29	1.5.3	Beta testing	13	EDTR3;EDTR4;TSTSP	4 days	12 days
30	1.5.4	Final testing	15	EDTR3;EDTR4;TSTSP[50%]	2 days	5 days
31	1.5.5	Acceptance	16	OPM[50%];EDTR1;EDTR2;EDTR3;EDTR4	1 day	4.5 days
32	1.6	DEPLOYMENT	31	CTR	2 days	2 days
33	1.7	PROJECT MANAGEMENT (After Req'ts WP & before Closure)	2;32FF	OPM[50%]	60 days	30 days
34	1.8	CONTRACTOR'S PROJECT CLOSURE	33	OPM[50%];CTR;TRAVEL[€ 250.00]	1 day	1.5 days
35	1.9	OVERALL PROJECT CLOSURE	34	DATENG;EDTR1;EDTR3;OPM;EDTR2;EDTR4	1 day	6 days

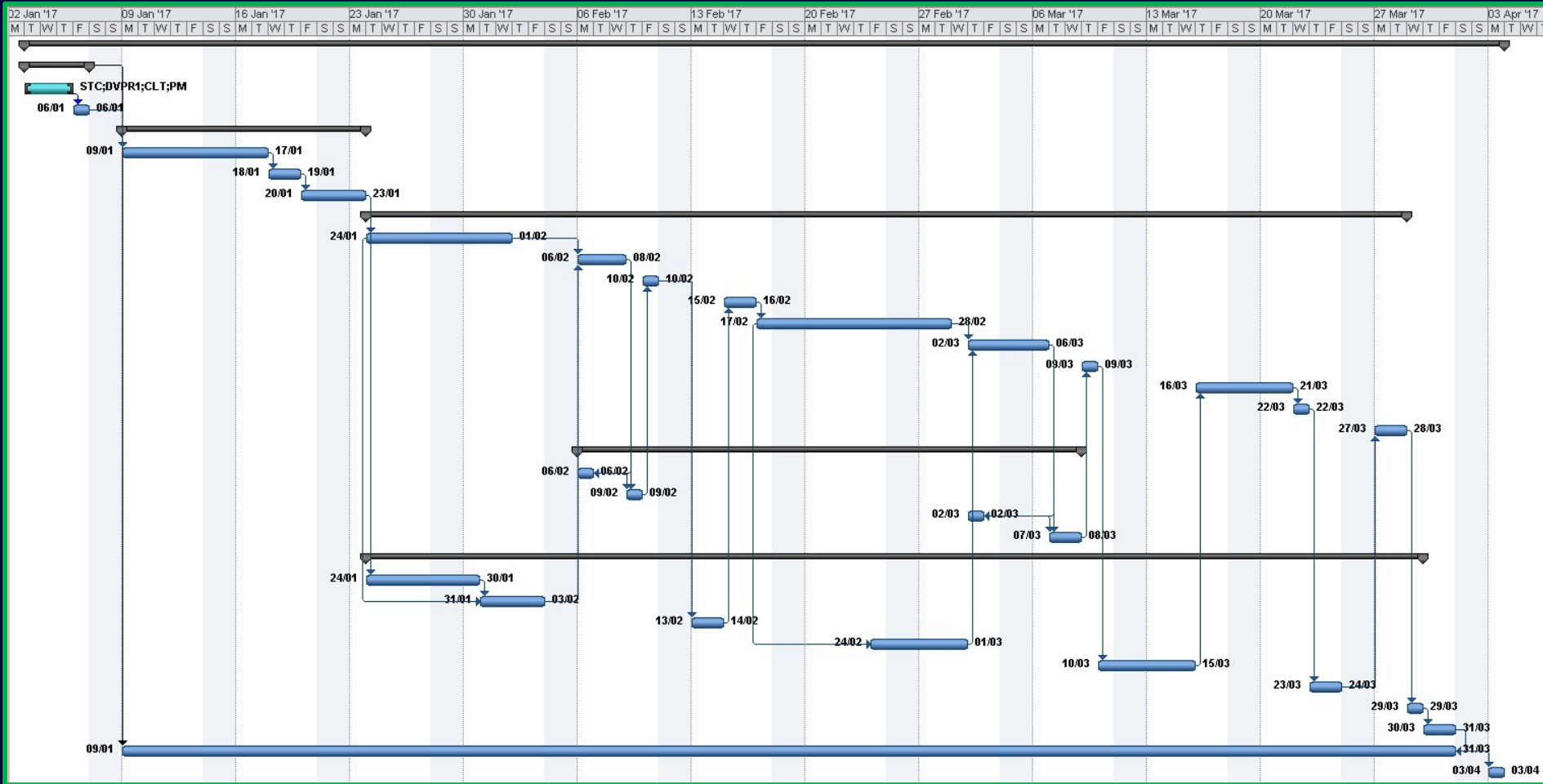
Start & End dates: EXONE – Contractor

	WBS	Task Name	Predecessors	Resource Names	Duration	Start	Finish
1	1	PROJECT EXONE			65 days	03/01/17	03/04/17
2	1.1	REQUIREMENTS			4 days	03/01/17	06/01/17
3	1.1.1	Review and complete requirements & plan with client		STC;DVPR1;CLT;PM	3 days	03/01/17	05/01/17
4	1.1.2	Final discussion and agreement with client on req'ts & plan	3	CLT;PM	1 day	06/01/17	06/01/17
5	1.2	DESIGN			11 days	09/01/17	23/01/17
6	1.2.1	Write design specifications	4	DVPR1;STC	7 days	09/01/17	17/01/17
7	1.2.2	Check design with respect to requirements	6	DVPR1;STC;PM[50%]	2 days	18/01/17	19/01/17
8	1.2.3	Meet with client to discuss & agree on design	7	STC;PM[50%];DVPR1;CLT	2 days	20/01/17	23/01/17
9	1.3	IMPLEMENTATION			46 days	24/01/17	28/03/17
10	1.3.1	Coding - Alpha version	8	DVPR2;DVPR1	7 days	24/01/17	01/02/17
11	1.3.2	Debugging phase 1 (following internal Alpha testing)	27;10	DVPR2;DVPR1	3 days	06/02/17	08/02/17
12	1.3.3	Production of Alpha version and delivery to client	22	DVPR2	1 day	10/02/17	10/02/17
13	1.3.4	Debugging phase 2 (following client Alpha testing)	28	DVPR1;DVPR2	2 days	15/02/17	16/02/17
14	1.3.5	Coding - Beta version	13	DVPR2;DVPR1	8 days	17/02/17	28/02/17
15	1.3.6	Debugging phase 3 (following internal Beta testing)	29;14	DVPR2;DVPR1	3 days	02/03/17	06/03/17
16	1.3.7	Production of Beta version and delivery to client	24	DVPR2	1 day	09/03/17	09/03/17
17	1.3.8	Debugging phase 4 (following client Beta testing)	30	DVPR1;DVPR2	4 days	16/03/17	21/03/17
18	1.3.9	Production of Final version and delivery to client	17	DVPR2	1 day	22/03/17	22/03/17
19	1.3.10	Debugging phase 5 & delivery (following client Final testing)	31	DVPR2;DVPR1	2 days	27/03/17	28/03/17
20	1.4	INTEGRATION			23 days	06/02/17	08/03/17
21	1.4.1	Delivery of content subset by client	11FF-2 days	CLT	1 day	06/02/17	06/02/17
22	1.4.2	Integration of content subset	21;11	DVPR2	1 day	09/02/17	09/02/17
23	1.4.3	Delivery of complementary content by client	15FF-2 days	CLT	1 day	02/03/17	02/03/17
24	1.4.4	Integration of complementary content	23;15	DVPR2	2 days	07/03/17	08/03/17
25	1.5	TESTING & ACCEPTANCE			47 days	24/01/17	29/03/17
26	1.5.1	Prepare test plan and test cases	8	STC[50%];JTC	5 days	24/01/17	30/01/17
27	1.5.2	Internal testing - Alpha version	10SS+3 days;26	TSTR1;TSTR2	4 days	31/01/17	03/02/17
28	1.5.3	Alpha testing by client	12	CLT	2 days	13/02/17	14/02/17
29	1.5.4	Internal testing - Beta version	14SS+5 days	TSTR1;TSTR2	4 days	24/02/17	01/03/17
30	1.5.5	Beta testing by client	16	CLT	4 days	10/03/17	15/03/17
31	1.5.6	Final testing by client	18	CLT	2 days	23/03/17	24/03/17
32	1.5.7	Acceptance by client	19	CLT	1 day	29/03/17	29/03/17
33	1.6	DEPLOYMENT AT CLIENT'S SITE	32	DVPR2;JTC;TRAVEL[€ 750.00]	2 days	30/03/17	31/03/17
34	1.7	PROJECT MANAGEMENT (After Req'ts WP & before Closure)	2;33FF	PM[50%]	60 days	09/01/17	31/03/17
35	1.8	PROJECT CLOSURE	34	DVPR1;PM;STC;TSTR1;CLT[50%]	1 day	03/04/17	03/04/17

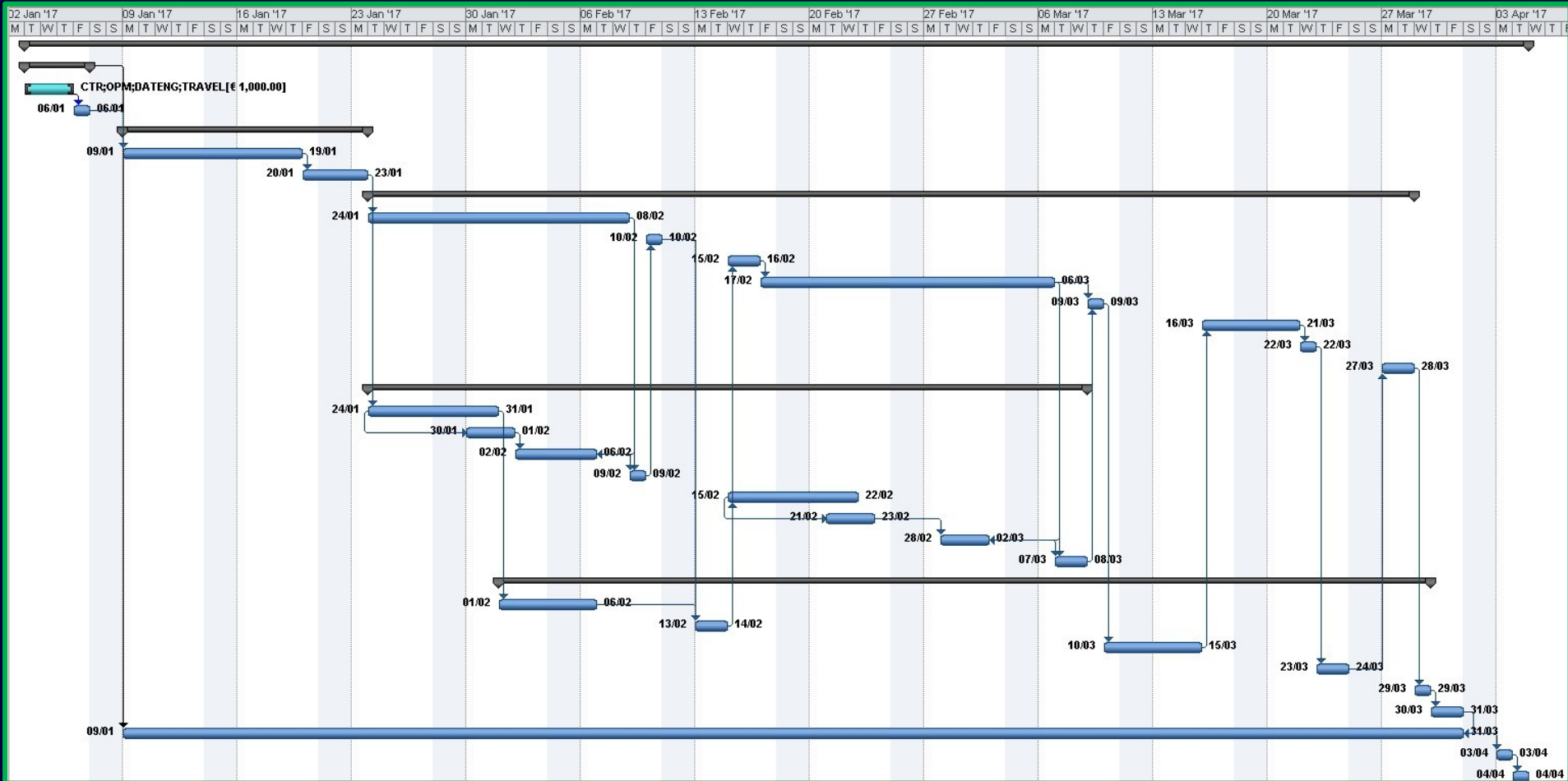
Start & End dates: EXONE – Client

	WBS	Task Name	Predecessors	Resource Names	Duration	Start	Finish
1	1	PROJECT EXONE			66 days	03/01/17	04/04/17
2	1.1	REQUIREMENTS			4 days	03/01/17	06/01/17
3	1.1.1	Review and complete requirements & plan with contractor		CTR;OPM;DATENG; TRAVEL[€ 1,000.00]	3 days	03/01/17	05/01/17
4	1.1.2	Final discussion and agreement with contractor on req'ts & plan	3	CTR;OPM	1 day	06/01/17	06/01/17
5	1.2	SOFTWARE DESIGN			11 days	09/01/17	23/01/17
6	1.2.1	Write and check design specifications	4	CTR	9 days	09/01/17	19/01/17
7	1.2.2	Meet with contractor to discuss & agree on design	6	OPM[50%]; CTR; TRAVEL[€ 400.00]	2 days	20/01/17	23/01/17
8	1.3	SOFTWARE IMPLEMENTATION			46 days	24/01/17	28/03/17
9	1.3.1	Coding, internal testing & bug fixing - Alpha version	7	CTR	12 days	24/01/17	08/02/17
10	1.3.2	Delivery of Alpha version by contractor	21	CTR	1 day	10/02/17	10/02/17
11	1.3.3	Debugging following Alpha testing	28	CTR	2 days	15/02/17	16/02/17
12	1.3.4	Coding, internal testing & bug fixing - Beta version	11	CTR	12 days	17/02/17	06/03/17
13	1.3.5	Delivery of Beta version by contractor	25;12	CTR	1 day	09/03/17	09/03/17
14	1.3.6	Debugging following Beta testing	29	CTR	4 days	16/03/17	21/03/17
15	1.3.7	Delivery of Final version by contractor	14	CTR	1 day	22/03/17	22/03/17
16	1.3.8	Debugging following Final testing & delivery for acceptance	30	CTR	2 days	27/03/17	28/03/17
17	1.4	CONTENT CREATION & INTEGRATION			32 days	24/01/17	08/03/17
18	1.4.1	Creation of content subset	7	EDTR1;EDTR2;EDTR3;EDTR4	6 days	24/01/17	31/01/17
19	1.4.2	Proofreading of content subset	18SS+4 days	PRFRDR1;PRFRDR2	3 days	30/01/17	01/02/17
20	1.4.3	Preparation of content subset & delivery to contractor	9FF-2 days;19	DATENG	3 days	02/02/17	06/02/17
21	1.4.4	Integration of content subset	20;9	CTR	1 day	09/02/17	09/02/17
22	1.4.5	Creation of complementary content	28	EDTR1;EDTR2;EDTR3;EDTR4	6 days	15/02/17	22/02/17
23	1.4.6	Proofreading of complementary content	22SS+4 days	PRFRDR1;PRFRDR2	3 days	21/02/17	23/02/17
24	1.4.7	Preparation of complementary content & delivery to contractor	12FF-2 days;23	DATENG	3 days	28/02/17	02/03/17
25	1.4.8	Integration of complementary content	24;12	CTR	2 days	07/03/17	08/03/17
26	1.5	TESTING & ACCEPTANCE			41 days	01/02/17	29/03/17
27	1.5.1	Prepare test plan and test cases	18	EDTR1;EDTR2	4 days	01/02/17	06/02/17
28	1.5.2	Alpha testing	10;27	EDTR3;EDTR4	2 days	13/02/17	14/02/17
29	1.5.3	Beta testing	13	EDTR3;EDTR4;TSTSP	4 days	10/03/17	15/03/17
30	1.5.4	Final testing	15	EDTR3;EDTR4;TSTSP[50%]	2 days	23/03/17	24/03/17
31	1.5.5	Acceptance	16	OPM[50%];EDTR1;EDTR2;EDTR3;EDTR4	1 day	29/03/17	29/03/17
32	1.6	DEPLOYMENT	31	CTR	2 days	30/03/17	31/03/17
33	1.7	PROJECT MANAGEMENT (After Req'ts WP & before Closure)	2;32FF	OPM[50%]	60 days	09/01/17	31/03/17
34	1.8	CONTRACTOR'S PROJECT CLOSURE	33	OPM[50%]; CTR; TRAVEL[€ 250.00]	1 day	03/04/17	03/04/17
35	1.9	OVERALL PROJECT CLOSURE	34	DATENG;EDTR1;EDTR3;OPM;EDTR2;EDTR4	1 day	04/04/17	04/04/17

Schedule: EXONE – Contractor (1)



Schedule: EXONE – Client (1)



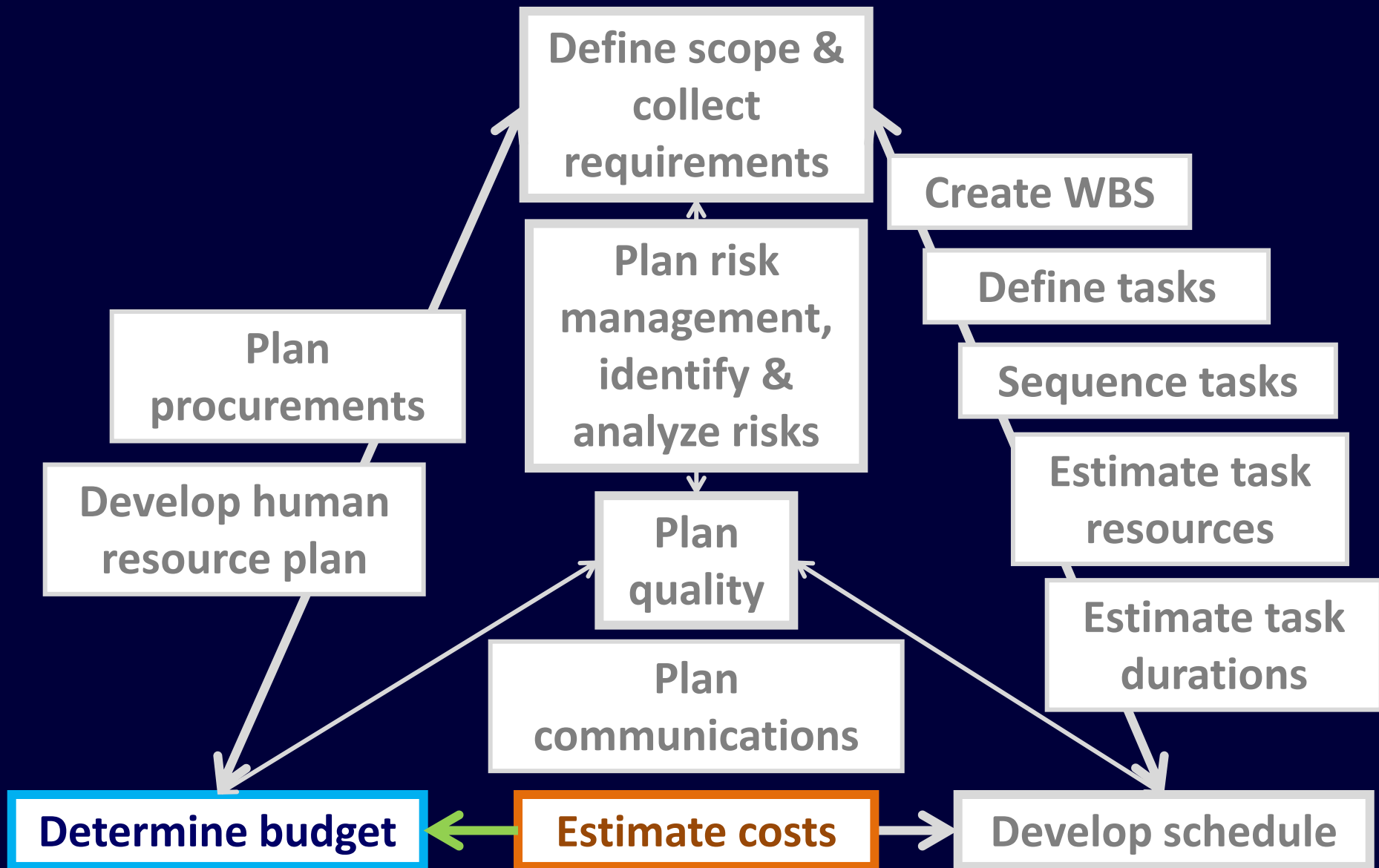
Schedule: EXONE – Contractor (2)

January 2017						
Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
02	03	04	05	06	07	08
	Review and complete requirements & plan with client; 3 days			Final discussion and agreement with client; 1 day		
09	10	11	12	13	14	15
		Write design specifications; 7 days				
		PROJECT MANAGEMENT (After Req'ts WP & before Closure); 60 days				
16	17	18	19	20	21	22
Write design specifications; 7 days		Check design with respect to requirements; 2 days		Meet with client to discuss & agree on design; 2 days		
		PROJECT MANAGEMENT (After Req'ts WP & before Closure); 60 days				
23	24	25	26	27	28	29
Meet with client to discuss & agree on design; 2 days			Coding - Alpha version; 7 days			
			Prepare test plan and test cases; 5 days			
		PROJECT MANAGEMENT (After Req'ts WP & before Closure); 60 days				
30	31	01 Feb	02	03	04	05
	Coding - Alpha version; 7 days					
Prepare test plan and test cases; 5 days	Internal testing - Alpha version; 4 days					
		PROJECT MANAGEMENT (After Req'ts WP & before Closure); 60 days				
06	07	08	09	10	11	12
Debugging phase 1 (following internal Alpha testing); 3 days		Integration of content subset; 1 day		Production of Alpha version and delivery; 1 day		
Delivery of content subset by client; 1 day						
		PROJECT MANAGEMENT (After Req'ts WP & before Closure); 60 days				
13	14	15	16	17	18	19
Alpha testing by client; 2 days		Debugging phase 2 (following client Alpha testing); 2 days		Coding - Beta version; 8 days		
		PROJECT MANAGEMENT (After Req'ts WP & before Closure); 60 days				
20	21	22	23	24	25	26

Schedule: EXONE – Client (2)

January 2017						
Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
02	03	04	05	06	07	08
	Review and complete requirements & plan with contractor; 3 days			Final discussion and agreement with contractor		
09	10	11	12	13	14	15
		Write and check design specifications; 9 days				
		PROJECT MANAGEMENT (After Req'ts WP & before Closure); 60 days				
16	17	18	19	20	21	22
	Write and check design specifications; 9 days			Meet with contractor to discuss & agree on design; 2 days		
		PROJECT MANAGEMENT (After Req'ts WP & before Closure); 60 days				
23	24	25	26	27	28	29
Meet with contractor to discuss & agree on design	Coding, internal testing & bug fixing - Alpha version; 12 days					
	Creation of content subset; 6 days					
		PROJECT MANAGEMENT (After Req'ts WP & before Closure); 60 days				
30	31	01 Feb	02	03	04	05
		Coding, internal testing & bug fixing - Alpha version; 12 days				
Creation of content subset; 6 days		Prepare test plan and test cases; 4 days			Delivery to contractor; 3 days	
	Proofreading of content subset; 3 days					
		PROJECT MANAGEMENT (After Req'ts WP & before Closure); 60 days				
06	07	08	09	10	11	12
Coding, internal testing & bug fixing - Alpha version; 12 days			Integration of content subset; 1 day	Delivery of Alpha version by contractor;		

Estimate costs & Determine budget



Project EXONE: Contractor's costs (1)

Project manager
Senior technical consultant
Junior technical consultant
Developer 1
Developer 2
Tester 1
Tester 2
Client
Travel

Resource Name ▾	Type ▾	Max. Units ▾	Std. Rate ▾
PM	Work	100%	€ 500.00/day
STC	Work	100%	€ 450.00/day
JTC	Work	100%	€ 350.00/day
DVPR1	Work	100%	€ 400.00/day
DVPR2	Work	100%	€ 350.00/day
TSTR1	Work	100%	€ 300.00/day
TSTR2	Work	100%	€ 300.00/day
CLT	Work	100%	€ 0.00/day
TRAVEL	Cost		

Project EXONE: Contractor's costs (2)

	WBS	Task Name	Predecessors	Resource Names	Duration	Start	Finish	Work	Cost
1	1	PROJECT EXONE			65 days	03/01/17	03/04/17	177 days	€ 65,225.00
2	1.1	REQUIREMENTS			4 days	03/01/17	06/01/17	14 days	€ 4,550.00
3	1.1.1	Review and complete requirements & plan with client		STC; DVPR1; CLT; PM	3 days	03/01/17	05/01/17	12 days	€ 4,050.00
4	1.1.2	Final discussion and agreement with client on req'ts & plan	3	CLT; PM	1 day	06/01/17	06/01/17	2 days	€ 500.00
5	1.2	DESIGN			11 days	09/01/17	23/01/17	26 days	€ 10,350.00
6	1.2.1	Write design specifications	4	DVPR1; STC	7 days	09/01/17	17/01/17	14 days	€ 5,950.00
7	1.2.2	Check design with respect to requirements	6	DVPR1; STC; PM[50%]	2 days	18/01/17	19/01/17	5 days	€ 2,200.00
8	1.2.3	Meet with client to discuss & agree on design	7	STC; PM[50%]; DVPR1; CLT	2 days	20/01/17	23/01/17	7 days	€ 2,200.00
9	1.3	IMPLEMENTATION			46 days	24/01/17	28/03/17	61 days	€ 22,800.00
10	1.3.1	Coding - Alpha version	8	DVPR2; DVPR1	7 days	24/01/17	01/02/17	14 days	€ 5,250.00
11	1.3.2	Debugging phase 1 (following internal Alpha testing)	27; 10	DVPR2; DVPR1	3 days	06/02/17	08/02/17	6 days	€ 2,250.00
12	1.3.3	Production of Alpha version and delivery to client	22	DVPR2	1 day	10/02/17	10/02/17	1 day	€ 350.00
13	1.3.4	Debugging phase 2 (following client Alpha testing)	28	DVPR1; DVPR2	2 days	15/02/17	16/02/17	4 days	€ 1,500.00
14	1.3.5	Coding - Beta version	13	DVPR2; DVPR1	8 days	17/02/17	28/02/17	16 days	€ 6,000.00
15	1.3.6	Debugging phase 3 (following internal Beta testing)	29; 14	DVPR2; DVPR1	3 days	02/03/17	06/03/17	6 days	€ 2,250.00
16	1.3.7	Production of Beta version and delivery to client	24	DVPR2	1 day	09/03/17	09/03/17	1 day	€ 350.00
17	1.3.8	Debugging phase 4 (following client Beta testing)	30	DVPR1; DVPR2	4 days	16/03/17	21/03/17	8 days	€ 3,000.00
18	1.3.9	Production of Final version and delivery to client	17	DVPR2	1 day	22/03/17	22/03/17	1 day	€ 350.00
19	1.3.10	Debugging phase 5 & delivery (following client Final testing)	31	DVPR2; DVPR1	2 days	27/03/17	28/03/17	4 days	€ 1,500.00
20	1.4	INTEGRATION			23 days	06/02/17	08/03/17	5 days	€ 1,050.00
21	1.4.1	Delivery of content subset by client	11FF-2 days	CLT	1 day	06/02/17	06/02/17	1 day	€ 0.00
22	1.4.2	Integration of content subset	21; 11	DVPR2	1 day	09/02/17	09/02/17	1 day	€ 350.00
23	1.4.3	Delivery of complementary content by client	15FF-2 days	CLT	1 day	02/03/17	02/03/17	1 day	€ 0.00
24	1.4.4	Integration of complementary content	23; 15	DVPR2	2 days	07/03/17	08/03/17	2 days	€ 700.00
25	1.5	TESTING & ACCEPTANCE			47 days	24/01/17	29/03/17	32.5 days	€ 7,675.00
26	1.5.1	Prepare test plan and test cases	8	STC[50%]; JTC	5 days	24/01/17	30/01/17	7.5 days	€ 2,875.00
27	1.5.2	Internal testing - Alpha version	10SS+3 days; 26	TSTR1; TSTR2	4 days	31/01/17	03/02/17	8 days	€ 2,400.00
28	1.5.3	Alpha testing by client	12	CLT	2 days	13/02/17	14/02/17	2 days	€ 0.00
29	1.5.4	Internal testing - Beta version	14SS+5 days	TSTR1; TSTR2	4 days	24/02/17	01/03/17	8 days	€ 2,400.00
30	1.5.5	Beta testing by client	16	CLT	4 days	10/03/17	15/03/17	4 days	€ 0.00
31	1.5.6	Final testing by client	18	CLT	2 days	23/03/17	24/03/17	2 days	€ 0.00
32	1.5.7	Acceptance by client	19	CLT	1 day	29/03/17	29/03/17	1 day	€ 0.00
33	1.6	DEPLOYMENT AT CLIENT'S SITE	32	DVPR2; JTC; TRAVEL[€ 750.00]	2 days	30/03/17	31/03/17	4 days	€ 2,150.00
34	1.7	PROJECT MANAGEMENT (After Req'ts WP & before Closure)	2; 33FF	PM[50%]	60 days	09/01/17	31/03/17	30 days	€ 15,000.00
35	1.8	PROJECT CLOSURE	34	DVPR1; PM; STC; TSTR1; CLT[50%]	1 day	03/04/17	03/04/17	4.5 days	€ 1,650.00

EXONE: Contractor's non-labour cost

WBS	Task Name	Predecessors	Resource Names	Duration	Start	Finish	Work	Cost
1	PROJECT EXONE			65 days	03/01/17	03/04/17	177 days	€ 65,225.00
2	1.1 REQUIREMENTS			4 days	03/01/17	06/01/17	14 days	€ 4,550.00
3	1.1.1 Review and complete requirements & plan with client		STC;DVPR1;CLT;PM	3 days	03/01/17	05/01/17	12 days	€ 4,050.00
4	1.1.2 Final discussion and agreement with client on req'ts & plan	3	CLT;PM	1 day	06/01/17	06/01/17	2 days	€ 500.00
5	1.2 DESIGN			11 days	09/01/17	23/01/17	26 days	€ 10,350.00
6	1.2.1 Write design specifications	4	DVPR1;STC	7 days	09/01/17	17/01/17	14 days	€ 5,950.00
7	1.2.2 Check design with respect to requirements	6	DVPR1;STC;PM[50%]	2 days	18/01/17	19/01/17	5 days	€ 2,200.00
8	1.2.3 Meet with client to discuss & agree on design	7	STC;PM[50%];DVPR1;CLT	2 days	20/01/17	23/01/17	7 days	€ 2,200.00
9	1.3 IMPLEMENTATION			46 days	24/01/17	28/03/17	61 days	€ 22,800.00
10	1.3.1 Coding - Alpha		DVPR2;DVPR1	7 days	24/01/17	01/02/17	14 days	€ 5,250.00
11	1.3.2 Debugging phase		DVPR2;DVPR1	3 days	06/02/17	08/02/17	6 days	€ 2,250.00
12	1.3.3 Production of Alpha version		DVPR2	1 day	10/02/17	10/02/17	1 day	€ 350.00
13	1.3.4 Debugging phase		DVPR1;DVPR2	2 days	15/02/17	16/02/17	4 days	€ 1,500.00
14	1.3.5 Coding - Beta		DVPR2;DVPR1	8 days	17/02/17	28/02/17	16 days	€ 6,000.00
15	1.3.6 Debugging phase		DVPR2;DVPR1	3 days	02/03/17	06/03/17	6 days	€ 2,250.00
16	1.3.7 Production of Beta version		DVPR2	1 day	09/03/17	09/03/17	1 day	€ 350.00
17	1.3.8 Debugging phase		DVPR1;DVPR2	4 days	16/03/17	21/03/17	8 days	€ 3,000.00
18	1.3.9 Production of Final version		DVPR2	1 day	22/03/17	22/03/17	1 day	€ 350.00
19	1.3.10 Debugging phase		DVPR2;DVPR1	2 days	27/03/17	28/03/17	4 days	€ 1,500.00
20	1.4 INTEGRATION			23 days	06/02/17	08/03/17	5 days	€ 1,050.00
21	1.4.1 Delivery of code		CLT	1 day	06/02/17	06/02/17	1 day	€ 0.00
22	1.4.2 Integration of code		DVPR2	1 day	09/02/17	09/02/17	1 day	€ 350.00
23	1.4.3 Delivery of code		CLT	1 day	02/03/17	02/03/17	1 day	€ 0.00
24	1.4.4 Integration of code		DVPR2	2 days	07/03/17	08/03/17	2 days	€ 700.00
25	1.5 TESTING & ACCEPTANCE			47 days	24/01/17	29/03/17	32.5 days	€ 7,675.00
26	1.5.1 Prepare test plan		CLT	1 day	24/01/17	24/01/17	1 day	€ 0.00
27	1.5.2 Internal testing by client		STC[50%];JTC	5 days	24/01/17	30/01/17	7.5 days	€ 2,875.00
28	1.5.3 Alpha testing by client		TSTR1;TSTR2	4 days	31/01/17	03/02/17	8 days	€ 2,400.00
29	1.5.4 Internal testing by client		CLT	2 days	13/02/17	14/02/17	2 days	€ 0.00
30	1.5.5 Beta testing by client		TSTR1;TSTR2	4 days	24/02/17	01/03/17	8 days	€ 2,400.00
31	1.5.6 Final testing by client		CLT	4 days	10/03/17	15/03/17	4 days	€ 0.00
32	1.5.7 Acceptance by client		CLT	2 days	23/03/17	24/03/17	2 days	€ 0.00
33	1.6 DEPLOYMENT AT CLIENT'S SITE			2 days	30/03/17	31/03/17	4 days	€ 2,150.00
34	1.7 PROJECT MANAGEMENT (After Req'ts WP & before Closure)	2;33FF	DVPR2;JTC;TRAVEL[€ 750.00];PM[50%]	60 days	09/01/17	31/03/17	30 days	€ 15,000.00
35	1.8 PROJECT CLOSURE	34	DVPR1;PM;STC;TSTR1;CLT[50%]	1 day	03/04/17	03/04/17	4.5 days	€ 1,650.00

Project EXONE: Client's costs (1)

Overall project manager

Editor 1

Editor 2

Editor 3

Editor 4

Data engineer

Proofreader 1

Proofreader 2

Testing service provider

Contractor

Contractor's cost (price)

Hardware (& software)

Multimedia asset licences

Travel

Resource Name ▾	Type ▾	Max. Units ▾	Std. Rate ▾
OPM	Work	100%	€ 450.00/day
EDTR1	Work	100%	€ 300.00/day
EDTR2	Work	100%	€ 300.00/day
EDTR3	Work	100%	€ 300.00/day
EDTR4	Work	100%	€ 300.00/day
DATENG	Work	100%	€ 400.00/day
PRFRDR1	Work	100%	€ 250.00/day
PRFRDR2	Work	100%	€ 250.00/day
TSTSP	Work	100%	€ 350.00/day
CTR	Work	100%	€ 0.00/day
CTR_COST	Cost		
HW	Material		€ 3,000.00
MMLIC	Material		€ 2,000.00
TRAVEL	Cost		

Project EXONE Client's costs (2)

	WBS	Task Name	Predecessors	Resource Names	Duration	Start	Finish	Work	Cost
1	1	PROJECT EXONE			66 days	03/01/17	04/04/17	200 day	€ 145,734.00
2	1.1	REQUIREMENTS			4 days	03/01/17	06/01/17	11 day	€ 4,000.00
3	1.1.1	Review and complete requirements & plan with contractor		CTR; OPM; DATENG; TRAVEL[€ 1,000.00]	3 days	03/01/17	05/01/17	9 day	€ 3,550.00
4	1.1.2	Final discussion and agreement with contractor on req'ts & plan	3	CTR; OPM	1 day	06/01/17	06/01/17	2 day	€ 450.00
5	1.2	SOFTWARE DESIGN			11 days	09/01/17	23/01/17	12 day	€ 850.00
6	1.2.1	Write and check design specifications	4	CTR	9 days	09/01/17	19/01/17	9 day	€ 0.00
7	1.2.2	Meet with contractor to discuss & agree on design	6	OPM[50%]; CTR; TRAVEL[€ 400.00]	2 days	20/01/17	23/01/17	3 day	€ 850.00
8	1.3	SOFTWARE IMPLEMENTATION			46 days	24/01/17	28/03/17	35 day	€ 0.00
9	1.3.1	Coding, internal testing & bug fixing - Alpha version	7	CTR	12 days	24/01/17	08/02/17	12 day	€ 0.00
10	1.3.2	Delivery of Alpha version by contractor	21	CTR	1 day	10/02/17	10/02/17	1 da	€ 0.00
11	1.3.3	Debugging following Alpha testing	28	CTR	2 days	15/02/17	16/02/17	2 day	€ 0.00
12	1.3.4	Coding, internal testing & bug fixing - Beta version	11	CTR	12 days	17/02/17	06/03/17	12 day	€ 0.00
13	1.3.5	Delivery of Beta version by contractor	25; 12	CTR	1 day	09/03/17	09/03/17	1 da	€ 0.00
14	1.3.6	Debugging following Beta testing	29	CTR	4 days	16/03/17	21/03/17	4 day	€ 0.00
15	1.3.7	Delivery of Final version by contractor	14	CTR	1 day	22/03/17	22/03/17	1 da	€ 0.00
16	1.3.8	Debugging following Final testing & delivery for acceptance	30	CTR	2 days	27/03/17	28/03/17	2 day	€ 0.00
17	1.4	CONTENT CREATION & INTEGRATION			32 days	24/01/17	08/03/17	69 day	€ 19,800.00
18	1.4.1	Creation of content subset	7	EDTR1; EDTR2; EDTR3; EDTR4	6 days	24/01/17	31/01/17	24 day	€ 7,200.00
19	1.4.2	Proofreading of content subset	18SS+4 days	PRFRDR1; PRFRDR2	3 days	30/01/17	01/02/17	6 day	€ 1,500.00
20	1.4.3	Preparation of content subset & delivery to contractor	9FF-2 days; 19	DATENG	3 days	02/02/17	06/02/17	3 day	€ 1,200.00
21	1.4.4	Integration of content subset	20; 9	CTR	1 day	09/02/17	09/02/17	1 da	€ 0.00
22	1.4.5	Creation of complementary content	28	EDTR1; EDTR2; EDTR3; EDTR4	6 days	15/02/17	22/02/17	24 day	€ 7,200.00
23	1.4.6	Proofreading of complementary content	22SS+4 days	PRFRDR1; PRFRDR2	3 days	21/02/17	23/02/17	6 day	€ 1,500.00
24	1.4.7	Preparation of complementary content & delivery to contractor	12FF-2 days; 23	DATENG	3 days	28/02/17	02/03/17	3 day	€ 1,200.00
25	1.4.8	Integration of complementary content	24; 12	CTR	2 days	07/03/17	08/03/17	2 day	€ 0.00
26	1.5	TESTING & ACCEPTANCE			41 days	01/02/17	29/03/17	33.5 day	€ 10,375.00
27	1.5.1	Prepare test plan and test cases	18	EDTR1; EDTR2	4 days	01/02/17	06/02/17	8 day	€ 2,400.00
28	1.5.2	Alpha testing	10; 27	EDTR3; EDTR4	2 days	13/02/17	14/02/17	4 day	€ 1,200.00
29	1.5.3	Beta testing	13	EDTR3; EDTR4; TSTSP	4 days	10/03/17	15/03/17	12 day	€ 3,800.00
30	1.5.4	Final testing	15	EDTR3; EDTR4; TSTSP[50%]	2 days	23/03/17	24/03/17	5 day	€ 1,550.00
31	1.5.5	Acceptance	16	OPM[50%]; EDTR1; EDTR2; EDTR3; EDTR4	1 day	29/03/17	29/03/17	4.5 day	€ 1,425.00
32	1.6	DEPLOYMENT	31	CTR	2 days	30/03/17	31/03/17	2 day	€ 0.00
33	1.7	PROJECT MANAGEMENT (After Req'ts WP & before Closure)	2; 32FF	OPM[50%]	60 days	09/01/17	31/03/17	30 day	€ 13,500.00
34	1.8	CONTRACTOR'S PROJECT CLOSURE	33	OPM[50%]; CTR; TRAVEL[€ 250.00]	1 day	03/04/17	03/04/17	1.5 day	€ 475.00
35	1.9	OVERALL PROJECT CLOSURE	34	DATENG; EDTR1; EDTR3; OPM; EDTR2; EDTR4	1 day	04/04/17	04/04/17	6 day	€ 2,050.00
36	1.10	COST OF WORK DONE BY CONTRACTOR		CTR_COST[€ 89,684.00]				0 day	€ 89,684.00
37	1.11	OTHER NON-LABOUR COSTS		HW[1]; MMLIC[1]				0 day	€ 5,000.00

EXONE: Client's non-labour costs (MPP)

WBS	Task Name	Predecessors	Resource Names	Duration	Start	Finish	Work	Cost
1	PROJECT EXONE			66 days	03/01/17	04/04/17	200 days	€ 145,734.00
1.1	REQUIREMENTS			4 days	03/01/17	06/01/17	11 days	€ 4,000.00
1.1.1	Review and complete requirements & plan with contractor		CTR;OPM;DATENG;TRAVEL[€ 1,000.00]	3 days	03/01/17	05/01/17	9 days	€ 3,550.00
1.1.2	Final discussion and agreement with contractor on req'ts & plan	3	CTR;OPM	1 day	06/01/17	06/01/17	2 days	€ 450.00
1.2	SOFTWARE DESIGN			11 days	09/01/17	23/01/17	12 days	€ 850.00
1.2.1	Write and check design for software		CTR	9 days	09/01/17	19/01/17	9 days	€ 0.00
1.2.2	Meet with contractor to discuss design		OPM[50%];CTR;TRAVEL[€ 400.00]	2 days	20/01/17	23/01/17	3 days	€ 850.00
1.3	SOFTWARE IMPLEMENTATION			46 days	24/01/17	28/03/17	35 days	€ 0.00
1.3.1	Coding, internal testing		OPM	12 days	24/01/17	08/02/17	12 days	€ 0.00
1.3.2	Delivery of Alpha version		EDTR1	1 day	10/02/17	10/02/17	1 day	€ 0.00
1.3.3	Debugging follow-up		EDTR2	2 days	15/02/17	16/02/17	2 days	€ 0.00
1.3.4	Coding, internal testing		EDTR3	12 days	17/02/17	06/03/17	12 days	€ 0.00
1.3.5	Delivery of Beta version		EDTR4	1 day	09/03/17	09/03/17	1 day	€ 0.00
1.3.6	Debugging follow-up		EDTR1	4 days	16/03/17	21/03/17	4 days	€ 0.00
1.3.7	Delivery of Final version		EDTR2	1 day	22/03/17	22/03/17	1 day	€ 0.00
1.3.8	Debugging follow-up		EDTR3	2 days	27/03/17	28/03/17	2 days	€ 0.00
1.4	CONTENT CREATION			32 days	24/01/17	08/03/17	69 days	€ 19,800.00
1.4.1	Creation of content		DATENG	6 days	24/01/17	31/01/17	24 days	€ 7,200.00
1.4.2	Proofreading of content		PRFRDR1	3 days	30/01/17	01/02/17	6 days	€ 1,500.00
1.4.3	Preparation of content		DATENG	3 days	02/02/17	06/02/17	3 days	€ 1,200.00
1.4.4	Integration of content		CTR	1 day	09/02/17	09/02/17	1 day	€ 0.00
1.4.5	Creation of content		EDTR1;EDTR2;EDTR3;EDTR4	6 days	15/02/17	22/02/17	24 days	€ 7,200.00
1.4.6	Proofreading of content		PRFRDR1;PRFRDR2	3 days	21/02/17	23/02/17	6 days	€ 1,500.00
1.4.7	Preparation of content		DATENG	3 days	28/02/17	02/03/17	3 days	€ 1,200.00
1.4.8	Integration of content		CTR	2 days	07/03/17	08/03/17	2 days	€ 0.00
1.5	TESTING & ACCEPTANCE			41 days	01/02/17	29/03/17	33.5 days	€ 10,375.00
1.5.1	Prepare test plan		EDTR1;EDTR2	4 days	01/02/17	06/02/17	8 days	€ 2,400.00
1.5.2	Alpha testing		EDTR3;EDTR4	2 days	13/02/17	14/02/17	4 days	€ 1,200.00
1.5.3	Beta testing		EDTR3;EDTR4;TSTSP	4 days	10/03/17	15/03/17	12 days	€ 3,800.00
1.5.4	Final testing		EDTR3;EDTR4;TSTSP[50%]	2 days	23/03/17	24/03/17	5 days	€ 1,550.00
1.5.5	Acceptance		OPM[50%];EDTR1;EDTR2;EDTR3;EDTR4	1 day	29/03/17	29/03/17	4.5 days	€ 1,425.00
1.6	DEPLOYMENT		CTR	2 days	30/03/17	31/03/17	2 days	€ 0.00
1.7	PROJECT MANAGEMENT		OPM[50%]	60 days	09/01/17	31/03/17	30 days	€ 13,500.00
1.8	CONTRACTOR'S PROJECT CLOSURE	33	OPM[50%];CTR;TRAVEL[€ 250.00]	1 day	03/04/17	03/04/17	1.5 days	€ 475.00
1.9	OVERALL PROJECT CLOSURE	34	DATENG;EDTR1;EDTR3;OPM;EDTR2;EDTR4	1 day	04/04/17	04/04/17	6 days	€ 2,050.00
1.10	COST OF WORK DONE BY CONTRACTOR		CTR_COST[€ 89,684.00]				0 days	€ 89,684.00
1.11	OTHER NON-LABOUR COSTS		HW[1];MMLIC[1]				0 days	€ 5,000.00

EXONE: Client's non-labour costs (POD)

	WBS	Nom	Prédécesseurs	Noms des ressources	Durée	Début	Fin	Travail	Coût
1	1	PROJECT EXONE			66 jours	03/01/17 08:00	04/04/17 17:00	1 600 heures	145734,00 €
2	1.1	REQUIREMENTS			4 jours	03/01/17 08:00	06/01/17 17:00	88 heures	4000,00 €
3	1.1.1	Review and complete requirements & plan with contractor		CTR;DATENG;OPM;TRAVEL1	3 jours	03/01/17 08:00	05/01/17 17:00	72 heures	3550,00 €
4	1.1.3	Final discussion and agreement with contractor on req'ts & plan	3	CTR;OPM	1 jour	06/01/17 08:00	06/01/17 17:00	16 heures	450,00 €
5	1.2	SOFTWARE DESIGN			11 jours	09/01/17 08:00	23/01/17 17:00	96 heures	850,00 €
6	1.2.1	Write & check design specifications	4	CTR	9 jours	09/01/17 08:00	19/01/17 17:00	72 heures	0,00 €
7	1.2.3	Meet with contractor to discuss & agree on design	6	CTR;OPM[50 %];TRAVEL2	2 jours	20/01/17 08:00	23/01/17 17:00	24 heures	850,00 €
8	1.3	IMPLEMENTATION, INTEGRATION, TESTING & ACCEPTANCE			47 jours	24/01/17 08:00	29/03/17 17:00	1 100 heures	30175,00 €
9	1.3.1	Coding, int			12 jours	24/01/17 08:00	08/02/17 17:00	96 heures	0,00 €
10	1.3.2	Creation of			6 jours	24/01/17 08:00	31/01/17 17:00	192 heures	7200,00 €
11	1.3.3	Prepare test			4 jours	01/02/17 08:00	06/02/17 17:00	64 heures	2400,00 €
12	1.3.4	Proofreading			3 jours	30/01/17 08:00	01/02/17 17:00	48 heures	1500,00 €
13	1.3.5	Preparation			3 jours	02/02/17 08:00	06/02/17 17:00	24 heures	1200,00 €
14	1.3.6	Integration			1 jour	09/02/17 08:00	09/02/17 17:00	8 heures	0,00 €
15	1.3.7	Delivery of			1 jour	10/02/17 08:00	10/02/17 17:00	8 heures	0,00 €
16	1.3.8	Alpha testin			2 jours	13/02/17 08:00	14/02/17 17:00	32 heures	1200,00 €
17	1.3.9	Creation of			6 jours	15/02/17 08:00	22/02/17 17:00	192 heures	7200,00 €
18	1.3.10	Proofreading			3 jours	21/02/17 08:00	23/02/17 17:00	48 heures	1500,00 €
19	1.3.11	Debugging			2 jours	15/02/17 08:00	16/02/17 17:00	16 heures	0,00 €
20	1.3.12	Coding, int			12 jours	17/02/17 08:00	06/03/17 17:00	96 heures	0,00 €
21	1.3.13	Preparation			3 jours	28/02/17 08:00	02/03/17 17:00	24 heures	1200,00 €
22	1.3.14	Integration			2 jours	07/03/17 08:00	08/03/17 17:00	16 heures	0,00 €
23	1.3.15	Delivery of			1 jour	09/03/17 08:00	09/03/17 17:00	8 heures	0,00 €
24	1.3.16	Beta testin			4 jours	10/03/17 08:00	15/03/17 17:00	96 heures	3800,00 €
25	1.3.17	Debugging			4 jours	16/03/17 08:00	21/03/17 17:00	32 heures	0,00 €
26	1.3.18	Delivery of			1 jour	22/03/17 08:00	22/03/17 17:00	8 heures	0,00 €
27	1.3.19	Final testin			2 jours	23/03/17 08:00	24/03/17 17:00	40 heures	1550,00 €
28	1.3.20	Debugging			2 jours	27/03/17 08:00	28/03/17 17:00	16 heures	0,00 €
29	1.3.21	Acceptance			1 jour	29/03/17 08:00	29/03/17 17:00	36 heures	1425,00 €
30	1.4	DEPLOYMENT			2 jours	30/03/17 08:00	31/03/17 17:00	16 heures	0,00 €
31	1.5	PROJECT MANAGEMENT (After Req'ts WP & before Closure)	2;30FF	OPM[50 %]	60 jours	09/01/17 08:00	31/03/17 17:00	240 heures	13500,00 €
32	1.6	CONTRACTOR'S PROJECT CLOSURE	31	CTR;OPM[50 %];TRAVEL3	1 jour	03/04/17 08:00	03/04/17 17:00	12 heures	475,00 €
33	1.7	OVERALL PROJECT CLOSURE	32	DATENG;EDTR1;EDTR2;EDTR3;EDTR4;OPM	1 jour	04/04/17 08:00	04/04/17 17:00	48 heures	2050,00 €
34	1.8	COST OF WORK DONE BY MAIN CONTRACTOR		CTR_COST	1 jour	03/01/17 08:00	03/01/17 17:00	0 heures	89684,00 €
35	1.9	OTHER NON-LABOUR COSTS		MMLIC;HW	1 jour	03/01/17 08:00	03/01/17 17:00	0 heures	5000,00 €

Project EXONE: Contractor's costs (MPP)

	WBS	Task Name	Predecessors	Resource Names	Duration	Start	Finish	Work	Cost
1	1	PROJECT EXONE			65 days	03/01/17	03/04/17	177 days	€ 65,225.00
2	1.1	REQUIREMENTS			4 days	03/01/17	06/01/17	14 days	€ 4,550.00
3	1.1.1	Review and complete requirements & plan with client		STC;DVPR1;CLT;PM	3 days	03/01/17	05/01/17	12 days	€ 4,050.00
4	1.1.2	Final discussion and agreement with client on req'ts & plan	3	CLT;PM	1 day	06/01/17	06/01/17	2 days	€ 500.00
5	1.2	DESIGN			11 days	09/01/17	23/01/17	26 days	€ 10,350.00
6	1.2.1	Write design specifications	4	DVPR1;STC	7 days	09/01/17	17/01/17	14 days	€ 5,950.00
7	1.2.2	Check design with respect to requirements	6	DVPR1;STC;PM[50%]	2 days	18/01/17	19/01/17	5 days	€ 2,200.00
8	1.2.3	Meet with client to discuss & agree on design	7	STC;PM[50%];DVPR1;CLT	2 days	20/01/17	23/01/17	7 days	€ 2,200.00
9	1.3	IMPLEMENTATION			46 days	24/01/17	28/03/17	61 days	€ 22,800.00
10	1.3.1	Coding - Alpha version	8	DVPR2;DVPR1	7 days	24/01/17	01/02/17	14 days	€ 5,250.00
11	1.3.2	Debugging phase 1 (following internal Alpha testing)	27;10	DVPR2;DVPR1	3 days	06/02/17	08/02/17	6 days	€ 2,250.00
12	1.3.3	Production of Alpha version and delivery to client	22	DVPR2	1 day	10/02/17	10/02/17	1 day	€ 350.00
13	1.3.4	Debugging phase 2 (following client Alpha testing)	28	DVPR1;DVPR2	2 days	15/02/17	16/02/17	4 days	€ 1,500.00
14	1.3.5	Coding - Beta version	13	DVPR2;DVPR1	8 days	17/02/17	28/02/17	16 days	€ 6,000.00
15	1.3.6	Debugging phase 3 (following internal Beta testing)	29;14	DVPR2;DVPR1	3 days	02/03/17	06/03/17	6 days	€ 2,250.00
16	1.3.7	Production of Beta version and delivery to client	24	DVPR2	1 day	09/03/17	09/03/17	1 day	€ 350.00
17	1.3.8	Debugging phase 4 (following client Beta testing)	30	DVPR1;DVPR2	4 days	16/03/17	21/03/17	8 days	€ 3,000.00
18	1.3.9	Production of Final version and delivery to client	17	DVPR2	1 day	22/03/17	22/03/17	1 day	€ 350.00
19	1.3.10	Debugging phase 5 & delivery (following client Final testing)	31	DVPR2;DVPR1	2 days	27/03/17	28/03/17	4 days	€ 1,500.00
20	1.4	INTEGRATION			23 days	06/02/17	08/03/17	5 days	€ 1,050.00
21	1.4.1	Delivery of content subset by client	11FF-2 days	CLT	1 day	06/02/17	06/02/17	1 day	€ 0.00
22	1.4.2	Integration of content subset	21;11	DVPR2	1 day	09/02/17	09/02/17	1 day	€ 350.00
23	1.4.3	Delivery of complementary content by client	15FF-2 days	CLT	1 day	02/03/17	02/03/17	1 day	€ 0.00
24	1.4.4	Integration of complementary content	23;15	DVPR2	2 days	07/03/17	08/03/17	2 days	€ 700.00
25	1.5	TESTING & ACCEPTANCE			47 days	24/01/17	29/03/17	32.5 days	€ 7,675.00
26	1.5.1	Prepare test plan and test cases	8	STC[50%];JTC	5 days	24/01/17	30/01/17	7.5 days	€ 2,875.00
27	1.5.2	Internal testing - Alpha version	10SS+3 days;26	TSTR1;TSTR2	4 days	31/01/17	03/02/17	8 days	€ 2,400.00
28	1.5.3	Alpha testing by client	12	CLT	2 days	13/02/17	14/02/17	2 days	€ 0.00
29	1.5.4	Internal testing - Beta version	14SS+5 days	TSTR1;TSTR2	4 days	24/02/17	01/03/17	8 days	€ 2,400.00
30	1.5.5	Beta testing by client	16	CLT	4 days	10/03/17	15/03/17	4 days	€ 0.00
31	1.5.6	Final testing by client	18	CLT	2 days	23/03/17	24/03/17	2 days	€ 0.00
32	1.5.7	Acceptance by client	19	CLT	1 day	29/03/17	29/03/17	1 day	€ 0.00
33	1.6	DEPLOYMENT AT CLIENT'S SITE	32	DVPR2;JTC;TRAVEL[€ 750.00]	2 days	30/03/17	31/03/17	4 days	€ 2,150.00
34	1.7	PROJECT MANAGEMENT (After Req'ts WP & before Closure)	2;33FF	PM[50%]	60 days	09/01/17	31/03/17	30 days	€ 15,000.00
35	1.8	PROJECT CLOSURE	34	DVPR1;PM;STC;TSTR1;CLT[50%]	1 day	03/04/17	03/04/17	4.5 days	€ 1,650.00

Project EXONE: Contractor's costs (XLS)

PROJECT EXONE CONTRACTOR'S RESOURCES & COSTS		DUR'NS	COSTS		
		65	€ 65,225		
REQUIREMENTS		4	€ 4,350		
Review and complete requirements & plan with client	STC;DVPR1;PM;CLT	3	€ 4,050		
Final discussion and agreement with client on req'ts & plan	PM;CLT	1	€ 500		
DESIGN		11	€ 10,350		
Write design specifications	DVPR1;STC	7	€ 5,950		
Check design with respect to requirements	DVPR1;STC;PM[50%]	2	€ 2,200		
Meet with client to discuss & agree on design	DVPR1;STC;PM[50%];CLT	2	€ 2,200		
IMPLEMENTATION		46	€ 22,800	HUMAN RSRCs	Costs/day
Coding - Alpha version	DVPR1;DVPR2	7	€ 5,250	PM	€ 500
Debugging phase 1 (following internal Alpha testing)	DVPR1;DVPR2	3	€ 2,250	STC	€ 450
Production of Alpha version and delivery to client	DVPR2	1	€ 350	JTC	€ 350
Debugging phase 2 (following client Alpha testing)	DVPR1;DVPR2	2	€ 1,500	DVPR1	€ 400
Coding - Beta version	DVPR1;DVPR2	8	€ 6,000	DVPR2	€ 350
Debugging phase 3 (following internal Beta testing)	DVPR1;DVPR2	3	€ 2,250	TSTR1	€ 300
Production of Beta version and delivery to client	DVPR2	1	€ 350	TSTR2	€ 300
Debugging phase 4 (following client Beta testing)	DVPR1;DVPR2	4	€ 3,000	CLT	€ 0
Production of Final version and delivery to client	DVPR2	1	€ 350		
Debugging phase 5 & delivery (following client Final testing)	DVPR1;DVPR2	2	€ 1,500		
INTEGRATION		23	€ 1,050	OTHER COST ITEMS	Costs
Delivery of content subset by client	CLT	1	€ 0	TRAVEL	€ 750
Integration of content subset	DVPR2	1	€ 350		
Delivery of complementary content by client	CLT	1	€ 0		
Integration of complementary content	DVPR2	2	€ 700		
TESTING & ACCEPTANCE		47	€ 7,675		
Prepare test plan and test cases	STC[50%];JTC	5	€ 2,875		
Internal testing - Alpha version	TSTR1;TSTR2	4	€ 2,400		
Alpha testing by client	CLT	2	€ 0		
Internal testing - Beta version	TSTR1;TSTR2	4	€ 2,400		
Beta testing by client	CLT	4	€ 0		
Final testing by client	CLT	2	€ 0		
Acceptance by client	CLT	1	€ 0		
DEPLOYMENT AT CLIENT'S SITE		2	€ 2,150		
	DVPR2;JTC;TRAVEL				
PROJECT MGMNT (After Req'ts WP & before Closure)		60	€ 15,000		
	PM[50%]				
PROJECT CLOSURE		1	€ 1,650		
	DVPR1;STC;TSTR1;PM;CLT[50%]				

EXONE: summary budget – Contractor

Project EXONE: contractor's budget	
Estimated cost of project	€ 65,225
Management reserve (10% of estimated cost)	€ 6,523
Total cost of project	€ 71,748
Mark-up% (% of total cost of project)	25%
Mark-up amount	€ 17,937
BUDGET (price to be paid by the client)	€ 89,684
Profit margin amount	€ 17,937
Profit margin % (% of budget/price)	20%

Project EXONE: Client's costs (MPP)

	WBS	Task Name	Predecessors	Resource Names	Duration	Start	Finish	Work	Cost
1	1	PROJECT EXONE			66 days	03/01/17	04/04/17	200 day	€ 145,734.00
2	1.1	REQUIREMENTS			4 days	03/01/17	06/01/17	11 day	€ 4,000.00
3	1.1.1	Review and complete requirements & plan with contractor		CTR; OPM; DATENG; TRAVEL[€ 1,000.00]	3 days	03/01/17	05/01/17	9 day	€ 3,550.00
4	1.1.2	Final discussion and agreement with contractor on req'ts & plan	3	CTR; OPM	1 day	06/01/17	06/01/17	2 day	€ 450.00
5	1.2	SOFTWARE DESIGN			11 days	09/01/17	23/01/17	12 day	€ 850.00
6	1.2.1	Write and check design specifications	4	CTR	9 days	09/01/17	19/01/17	9 day	€ 0.00
7	1.2.2	Meet with contractor to discuss & agree on design	6	OPM[50%]; CTR; TRAVEL[€ 400.00]	2 days	20/01/17	23/01/17	3 day	€ 850.00
8	1.3	SOFTWARE IMPLEMENTATION			46 days	24/01/17	28/03/17	35 day	€ 0.00
9	1.3.1	Coding, internal testing & bug fixing - Alpha version	7	CTR	12 days	24/01/17	08/02/17	12 day	€ 0.00
10	1.3.2	Delivery of Alpha version by contractor	21	CTR	1 day	10/02/17	10/02/17	1 day	€ 0.00
11	1.3.3	Debugging following Alpha testing	28	CTR	2 days	15/02/17	16/02/17	2 day	€ 0.00
12	1.3.4	Coding, internal testing & bug fixing - Beta version	11	CTR	12 days	17/02/17	06/03/17	12 day	€ 0.00
13	1.3.5	Delivery of Beta version by contractor	25; 12	CTR	1 day	09/03/17	09/03/17	1 day	€ 0.00
14	1.3.6	Debugging following Beta testing	29	CTR	4 days	16/03/17	21/03/17	4 day	€ 0.00
15	1.3.7	Delivery of Final version by contractor	14	CTR	1 day	22/03/17	22/03/17	1 day	€ 0.00
16	1.3.8	Debugging following Final testing & delivery for acceptance	30	CTR	2 days	27/03/17	28/03/17	2 day	€ 0.00
17	1.4	CONTENT CREATION & INTEGRATION			32 days	24/01/17	08/03/17	69 day	€ 19,800.00
18	1.4.1	Creation of content subset	7	EDTR1; EDTR2; EDTR3; EDTR4	6 days	24/01/17	31/01/17	24 day	€ 7,200.00
19	1.4.2	Proofreading of content subset	18SS+4 days	PRFRDR1; PRFRDR2	3 days	30/01/17	01/02/17	6 day	€ 1,500.00
20	1.4.3	Preparation of content subset & delivery to contractor	9FF-2 days; 19	DATENG	3 days	02/02/17	06/02/17	3 day	€ 1,200.00
21	1.4.4	Integration of content subset	20; 9	CTR	1 day	09/02/17	09/02/17	1 day	€ 0.00
22	1.4.5	Creation of complementary content	28	EDTR1; EDTR2; EDTR3; EDTR4	6 days	15/02/17	22/02/17	24 day	€ 7,200.00
23	1.4.6	Proofreading of complementary content	22SS+4 days	PRFRDR1; PRFRDR2	3 days	21/02/17	23/02/17	6 day	€ 1,500.00
24	1.4.7	Preparation of complementary content & delivery to contractor	12FF-2 days; 23	DATENG	3 days	28/02/17	02/03/17	3 day	€ 1,200.00
25	1.4.8	Integration of complementary content	24; 12	CTR	2 days	07/03/17	08/03/17	2 day	€ 0.00
26	1.5	TESTING & ACCEPTANCE			41 days	01/02/17	29/03/17	33.5 day	€ 10,375.00
27	1.5.1	Prepare test plan and test cases	18	EDTR1; EDTR2	4 days	01/02/17	06/02/17	8 day	€ 2,400.00
28	1.5.2	Alpha testing	10; 27	EDTR3; EDTR4	2 days	13/02/17	14/02/17	4 day	€ 1,200.00
29	1.5.3	Beta testing	13	EDTR3; EDTR4; TSTSP	4 days	10/03/17	15/03/17	12 day	€ 3,800.00
30	1.5.4	Final testing	15	EDTR3; EDTR4; TSTSP[50%]	2 days	23/03/17	24/03/17	5 day	€ 1,550.00
31	1.5.5	Acceptance	16	OPM[50%]; EDTR1; EDTR2; EDTR3; EDTR4	1 day	29/03/17	29/03/17	4.5 day	€ 1,425.00
32	1.6	DEPLOYMENT	31	CTR	2 days	30/03/17	31/03/17	2 day	€ 0.00
33	1.7	PROJECT MANAGEMENT (After Req'ts WP & before Closure)	2; 32FF	OPM[50%]	60 days	09/01/17	31/03/17	30 day	€ 13,500.00
34	1.8	CONTRACTOR'S PROJECT CLOSURE	33	OPM[50%]; CTR; TRAVEL[€ 250.00]	1 day	03/04/17	03/04/17	1.5 day	€ 475.00
35	1.9	OVERALL PROJECT CLOSURE	34	DATENG; EDTR1; EDTR3; OPM; EDTR2; EDTR4	1 day	04/04/17	04/04/17	6 day	€ 2,050.00
36	1.10	COST OF WORK DONE BY CONTRACTOR		CTR_COST[€ 89,684.00]				0 day	€ 89,684.00
37	1.11	OTHER NON-LABOUR COSTS		HW[1]; MMLIC[1]				0 day	€ 3,000.00

Price to be paid to the contractor

Project EXONE: Client's costs (XLS)

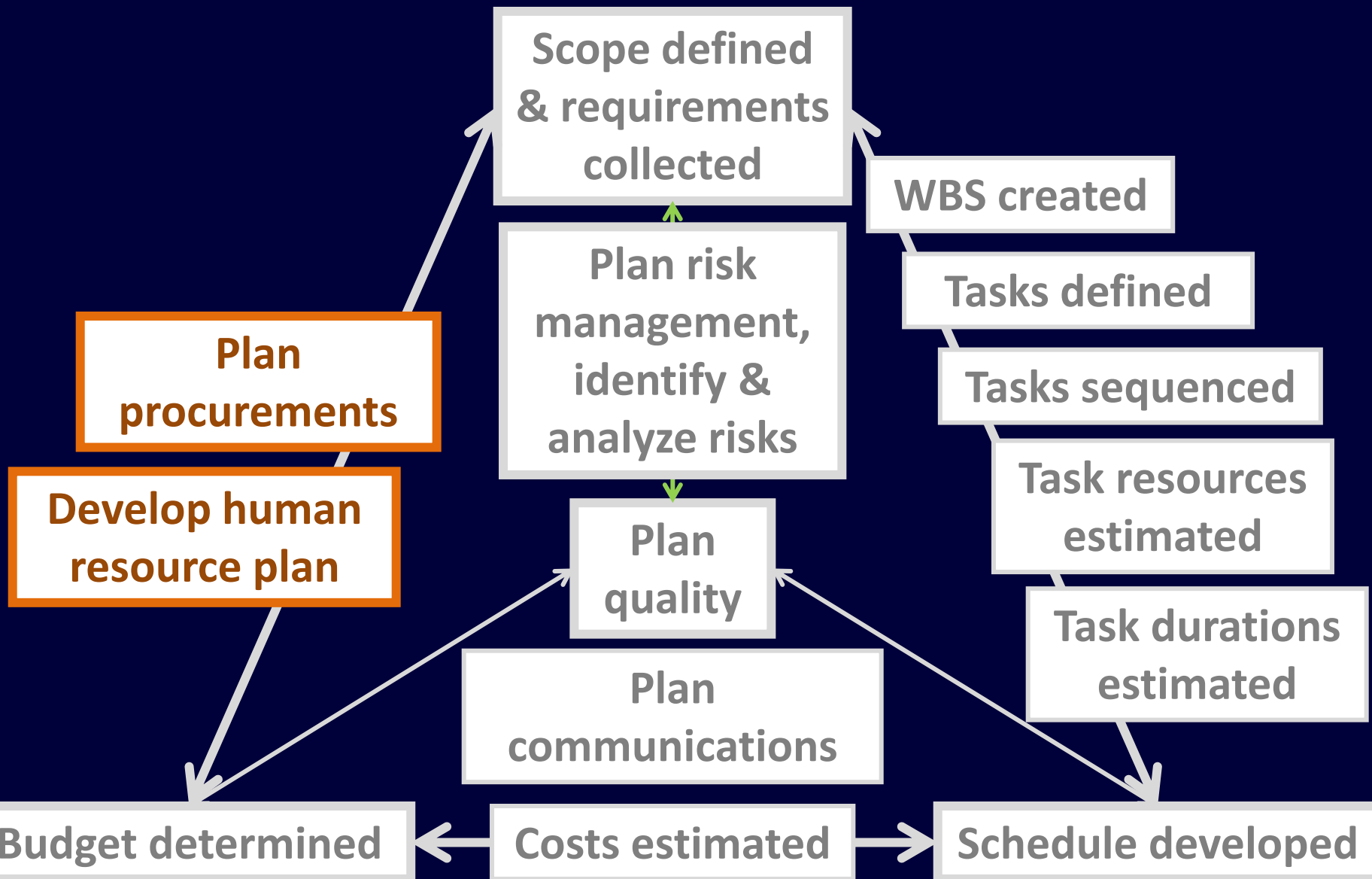
PROJECT EXONE CLIENT'S RESOURCES & COSTS	RESOURCES	DUR'NS 66	COSTS € 145,734		
REQUIREMENTS		4	€ 4,000		
Review and complete requirements & plan with contractor	OPM;DATENG;CTR;TRAVEL1	3	€ 3,550		
Final discussion and agreement with contractor on req'ts & plan	OPM;CTR	1	€ 450		
SOFTWARE DESIGN		11	€ 850		
Write and check design specifications	CTR	9	€ 0		
Meet with contractor to discuss & agree on design	OPM[50%];CTR;TRAVEL2	2	€ 850		
SOFTWARE IMPLEMENTATION		46	€ 0	HUMAN RSRCs	Costs/day
Coding, internal testing & bug fixing - Alpha version	CTR	12	€ 0	OPM	€ 450
Delivery of Alpha version by contractor	CTR	1	€ 0	EDTRs	€ 300
Debugging following Alpha testing	CTR	2	€ 0	DATENG	€ 400
Coding, internal testing & bug fixing - Beta version	CTR	12	€ 0	PRFRDRs	€ 250
Delivery of Beta version by contractor	CTR	1	€ 0	TSTSP	€ 350
Debugging following Beta testing	CTR	4	€ 0	CTR	€ 0
Delivery of Final version by contractor	CTR	1	€ 0		
Debugging following Final testing & delivery for acceptance	CTR	2	€ 0		
CONTENT CREATION & INTEGRATION		43	€ 19,800	OTHER COST ITEMS	Costs
Creation of content subset	EDTR1;EDTR2;EDTR3;EDTR4	6	€ 7,200	CTR COST	€ 89,684
Proofreading of content subset	PRFRDR1;PRFRDR2	3	€ 1,500	HW	€ 3,000
Preparation of content subset & delivery to contractor	DATENG	3	€ 1,200	MMLIC	€ 2,000
Integration of content subset	CTR	1	€ 0	TRAVEL1	€ 1,000
Creation of complementary content	EDTR1;EDTR2;EDTR3;EDTR4	6	€ 7,200	TRAVEL2	€ 400
Proofreading of complementary content	PRFRDR1;PRFRDR2	3	€ 1,500	TRAVEL3	€ 250
Preparation of complementary content & delivery to contractor	DATENG	3	€ 1,200		
Integration of complementary content	CTR	2	€ 0		
TESTING & ACCEPTANCE		38	€ 10,375		
Prepare test plan and test cases	EDTR1;EDTR2	4	€ 2,400		
Alpha testing	EDTR3;EDTR4	2	€ 1,200		
Beta testing	EDTR3;EDTR4;TSTSP	4	€ 3,800		
Final testing	EDTR3;EDTR4;TSTSP[50%]	2	€ 1,550		
Acceptance	EDTR1;EDTR2;EDTR3;EDTR4;OPM[50%]	1	€ 1,425		
DEPLOYMENT	CTR	2	€ 0		
PROJECT MGMNT (After Req'ts WP & before Closure)	OPM[50%]	60	€ 13,500		
CONTRACTOR'S PROJECT CLOSURE	OPM[50%];CTR;TRAVEL3	1	€ 475		
OVERALL PROJECT CLOSURE	OPM;DATENG;EDTR1;EDTR2;EDTR3;EDTR4	1	€ 2,050		
	CTR_COST;HW;MMLIC		€ 94,684		

EXONE: summary budget – Client

Project EXONE: client's budget	
Internal costs	
Pre-3/1/17: Req'ts writing + Contractor selection	€ 4,500
3/1/17 through to 4/4/17	€ 44,650
Total Internal costs	€ 49,150
External & other costs	
Software development	€ 89,684
Content proofreading	€ 3,000
Product testing (beta & final)	€ 1,750
Server and software	€ 3,000
Multimedia asset licences	€ 2,000
Travel	€ 1,650
Total External & other costs	€ 101,084
TOTAL Cost	€ 150,234
Management reserve (10% of total cost)	€ 15,023
BUDGET	€ 165,257

= Total cost (€ 145,734) in client's plan (on previous slide) + Pre-3/1/17 costs (€ 4,500)

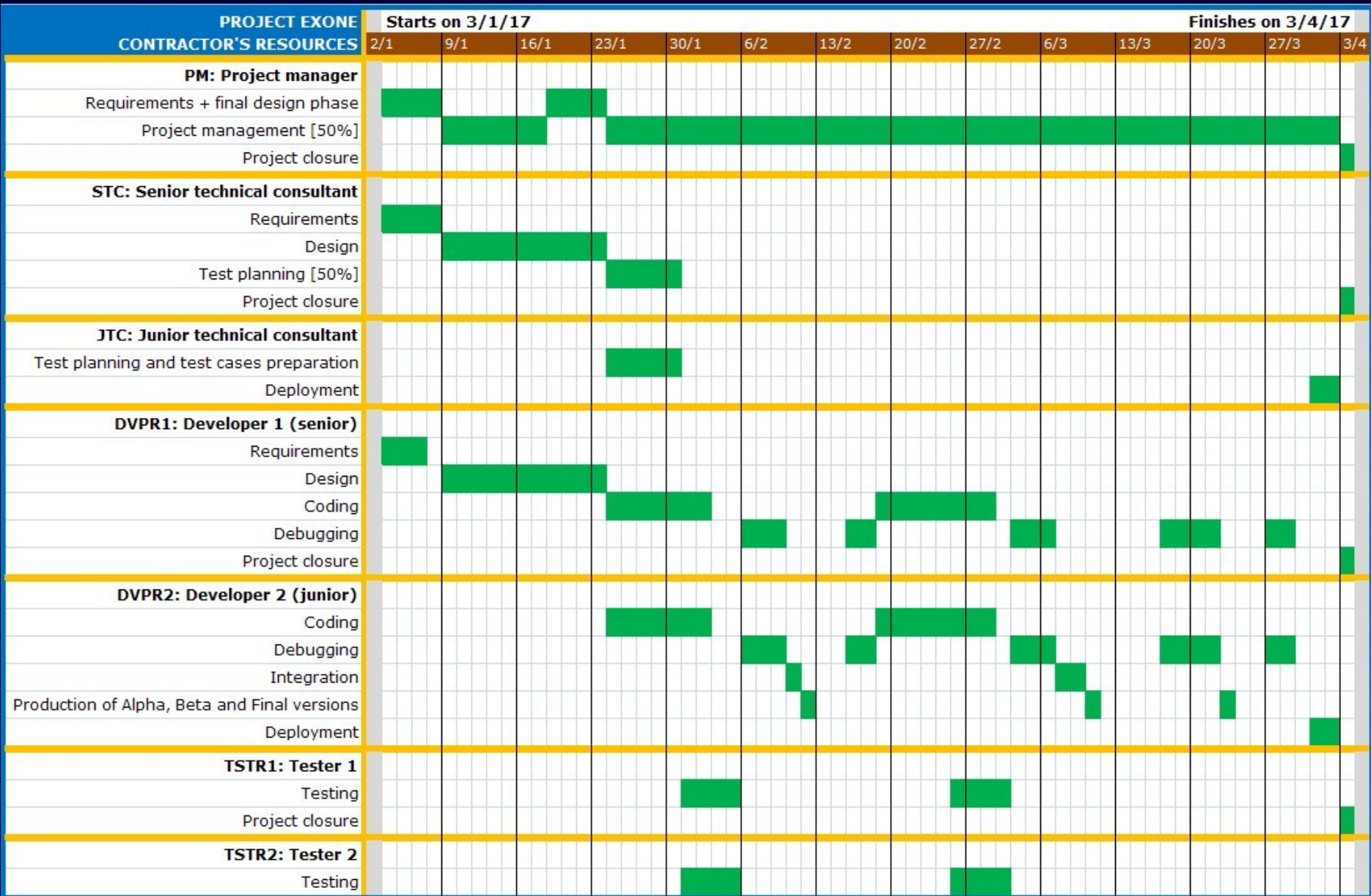
Develop HR plan + Plan procurements



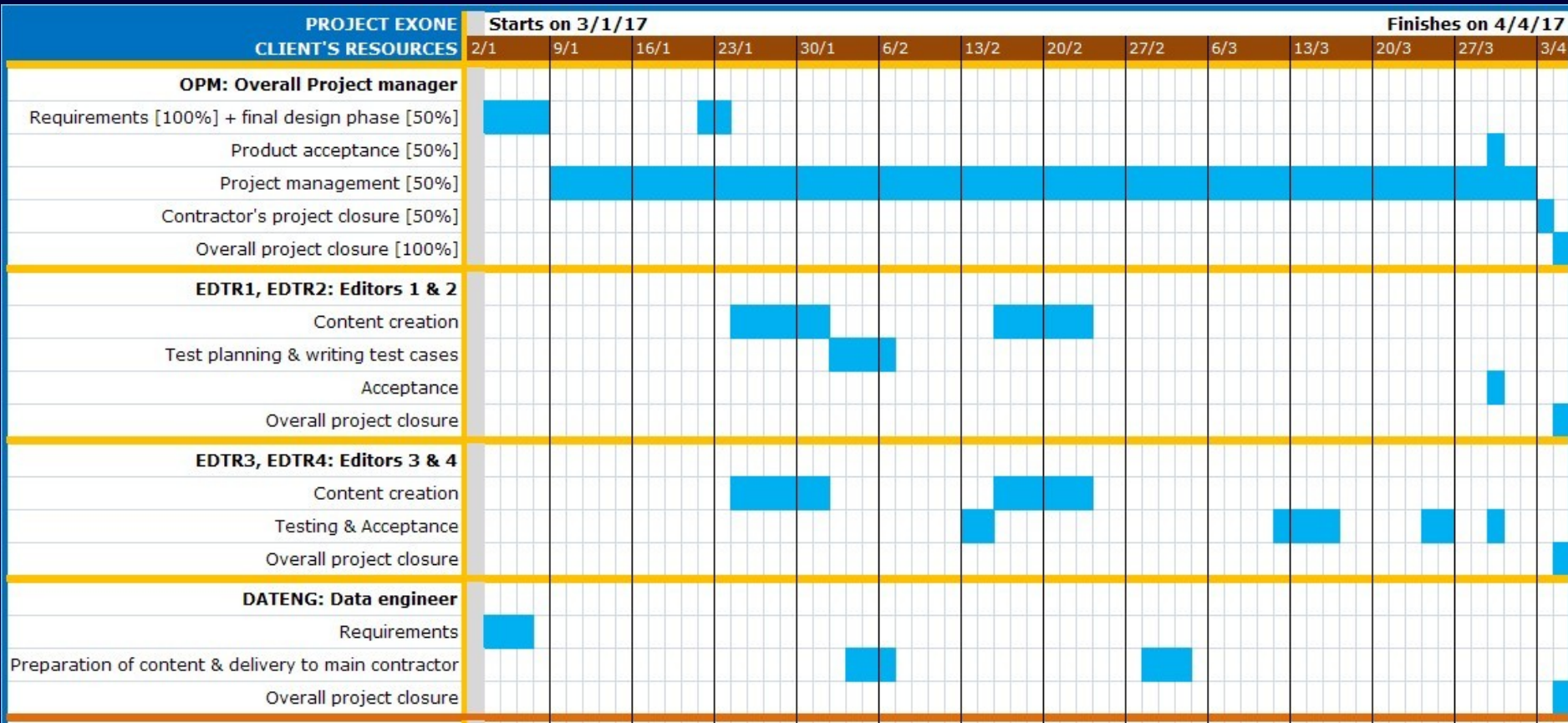
HR schedule: EXONE – Contractor (1)

[illegible]

HR schedule: EXONE – Contractor (2)



HR schedule: EXONE – Client



Procurement schedule: EXONE – Client

