

UPGRADE!™

The strategic planning game of demand management, relationship management, and continual improvement

by Nigel Hopkins

UPGRADE! is a challenging strategic business development game in which each player is managing a small industrial facility containing 4 departments over a 6 year gaming period. You have some simple IT solutions in place but it's time to bring them up to date. Each year you take three actions to help you on your journey. It's up to you which actions you take, choosing from upgrading your solutions, training more users, lobbying for more funding, tuning the solutions for better performance, creating reports to gain insight or integrating your solutions. Every year, the infrastructure fees are collected and revenue is received for trained users.

Business value is generated by upgraded solutions, tuned solutions, integrations and reporting.

OBJECTIVE

The objective of the game is to create the greatest amount of business value after a 6 year gaming period. This is achieved through upgrading the solutions, integrating them and reporting on them. Income is

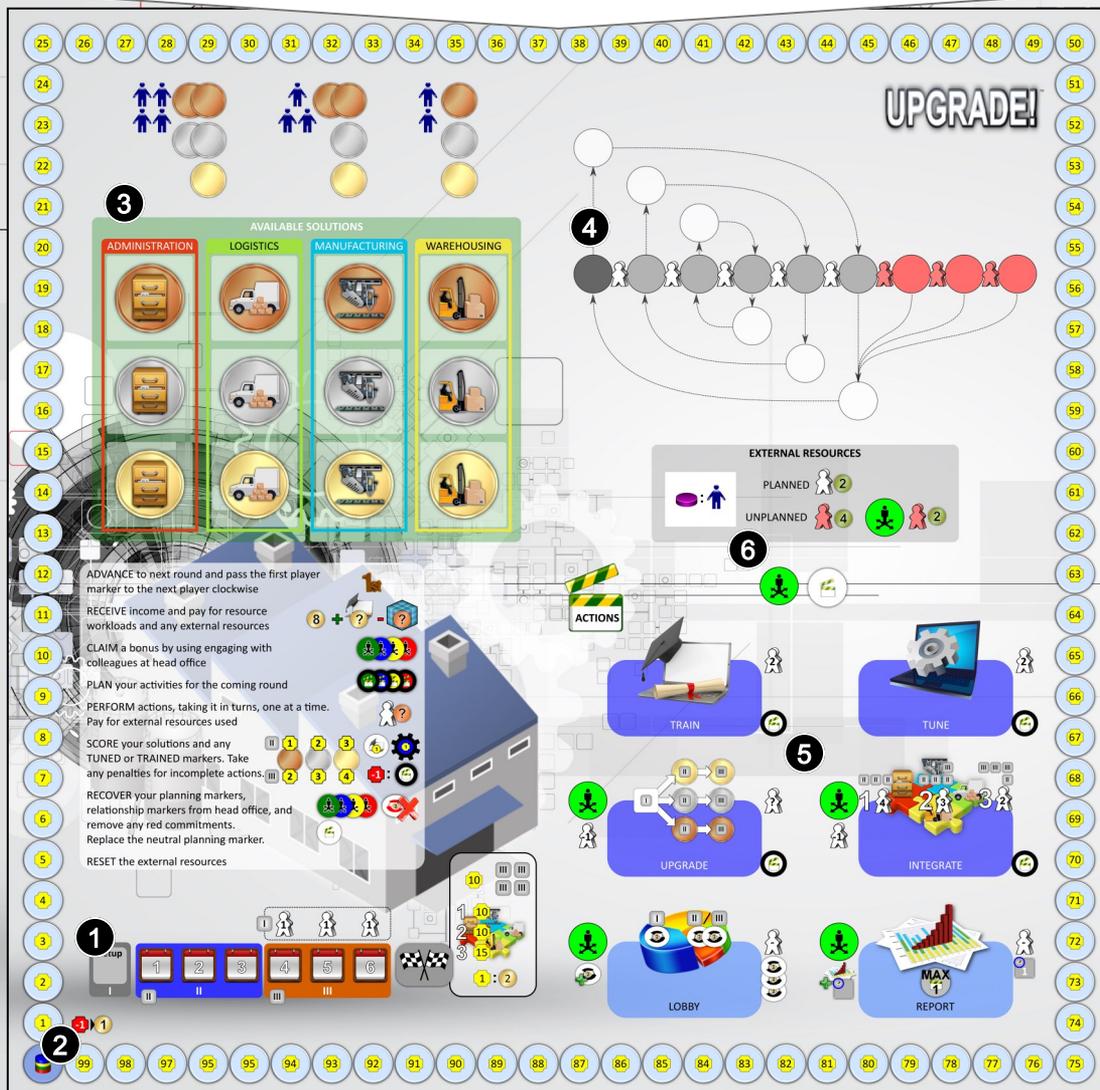
generated from the number of trained users you have in your facility. Additional financial support can be obtained by lobbying your management for commitment on your upgrades and connections.

WHAT'S IN THE BOX?



Main board

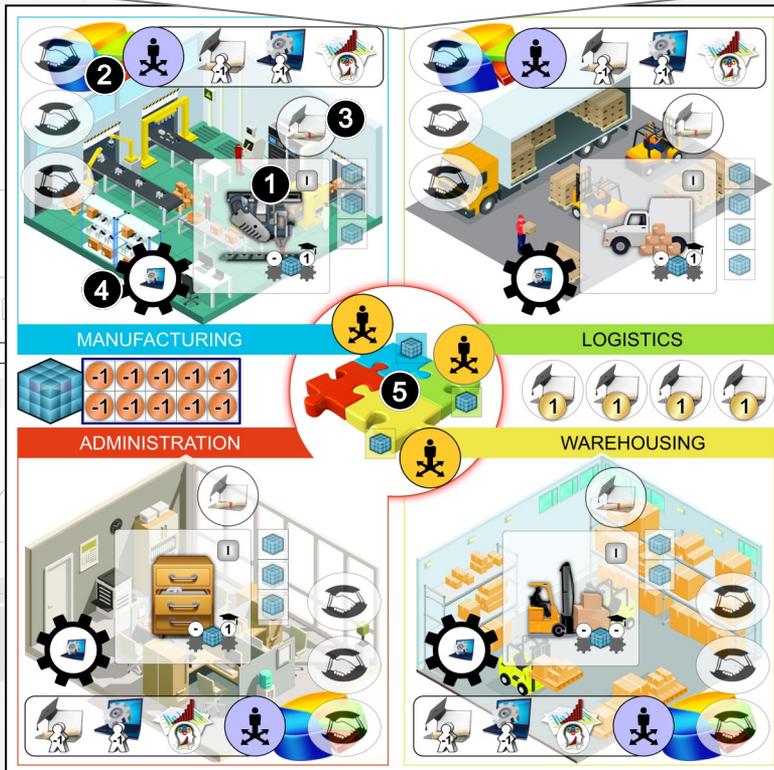
1. The game-year track is used to control the progress of the game. It is split into three phases of play corresponding to the level of technological development (I, II and III).
 2. The Business Value Points (BVP) track runs around the board. At any time during the game, a player can trade in one BVP for 1 credit.
 3. The Available solutions section contains the Solution upgrade tiles. During an UPGRADE action, one of these tiles may be moved to a player's board.
 4. The External resources track, is used to follow the consumption of the available planned and unplanned resource with the resource tracking discs. At the end of a round, in the RESET phase,
- the resource tracking discs are moved to their new position by following the arrows from their resting place to their starting position for the next round.
5. There are six actions in the game, each having a blue "play action" area on which the players place an action marker either when planning the action or when taking the action. Four of the actions can be planned at the beginning of the year to get extra business value points. These four are indicated with a darker blue background and an associated icon.
 6. There are 6 locations where you can engage with co-workers from head office to achieve a bonus. This is done by placing one of your Relationship markers on the spot at the beginning of the year. Only one player can claim each bonus.



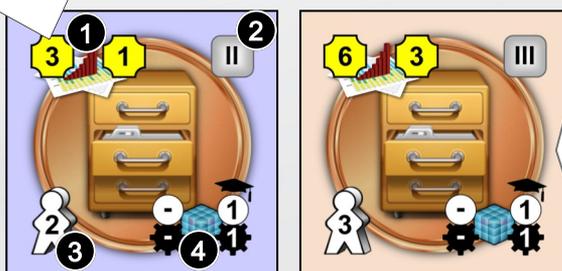
Facility board

Each player has a facility board, containing four departments; Administration, Manufacturing, Logistics, and Warehousing.

1. **Solution panel:** Each department has a solution, starting at level I. During the game these will be overlaid by the Solution upgrade tiles.
2. **Financial commitment:** When a relationship marker is placed in a solution area, during a LOBBY action, financial commitment markers can be added.
3. **Training new users:** During the course of the game, there is the option to TRAIN new users, extending
4. **Tuning a solution:** It is possible to TUNE level II/III solutions to improve their performance and, in some cases, reduce their workload requirement. When a solution is tuned, a marker is placed to the left of the solution panel.
5. **Integration area:** The centre of the facility board is used to show which solutions are integrated with Administration



This one applies when you are engaged with the department manager



Solution upgrade tiles

There is a set of Solution upgrade tiles for each department representing three solution variants; gold, silver and bronze. The centre of the tile contains an icon representing the department for which it is a solution option. The tiles are 2-sided with the level II solution on one side and the level III solution on the other.

1. Top left of the majority of tiles is a pair of numbers indicating the business value generated when a REPORT action is performed. The number on the left applies to an engaged department and the number on the right to a non-engaged department. The level II logistics tiles do not have a report value, instead they reward you with a relationship marker when first placed.
2. The technical level of the solution is shown top right. Solutions are upgraded from I (printed on the facility board) to II and from II to III.
3. The number of external resources needed to upgrade to the indicated type/level is shown bottom left.
4. The amount of workload needed for the delivery and support of the solution is shown bottom right, with various values based on whether the solution is tuned and whether the users have been trained.

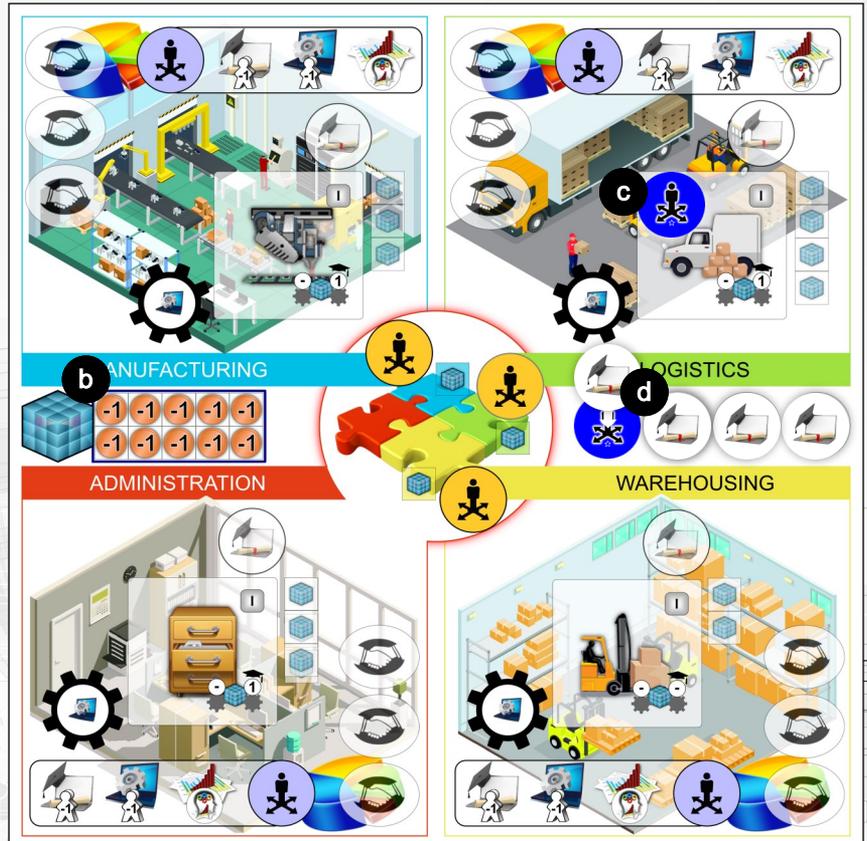
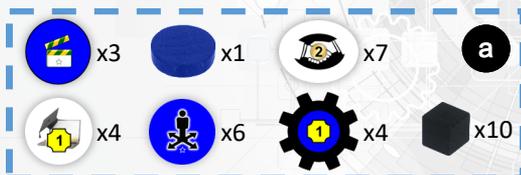
SETTING UP

Place the main board in the centre of the table with the coins and 100-BVP markers next to it.

Facility board and pieces - per player

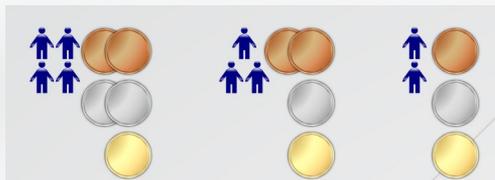
Place your facility board front of you.

- Take 7 Commitment markers, 4 Trained markers, 10 Workload cubes and, in the colour of your choice, 6 Relationship markers, 4 Tuned markers, 3 action markers, and 1 player disc. Place 1 Relationship marker, the Tuned markers and Commitment markers next to your board to form your supply. The action markers are also placed next to the board when not in use.
- Place the 10 workload cubes in the area left of centre, covering the “-1” numbers
- Place a further Relationship marker onto your facility board on top of the Logistics solution panel.
- Place one Relationship marker along with a Trained marker on each of the training positions (Trained marker on top).



Main board

- Place the game-year pawn on the “Setup” spot of the game year track
- Place the solution upgrade tiles on their corresponding locations with the level II side up. The number of tiles for each type is shown on the main board. For example, a 3-player game has 2 bronze and one each of silver and gold.
- Place a neutral planning marker to the right of its bonus spot. This will be available to whichever player uses a relationship marker to gain the bonus.
- Stack a number of resource tracking discs, equal to the number of players, onto the start of the External resource track.
- Each player puts their player disc at the start of the business value track.



You are now ready to play UPGRADE! Enjoy the game!

Place the Solution upgrade tiles onto their corresponding locations, level II side up, according to the number of players.

UPGRADE!

Place 1 resource tracking disc per player at the start of the worker track.

Place a neutral planning marker here.

EXTERNAL RESO

PLANNED

UNPLANNED

- 12 ADVANCE to next round and pass the first player marker to the next player clockwise
- 11 RECEIVE income and pay for resource workloads and any external resources
- 10 CLAIM a bonus by using engaging with colleagues at head office
- 9 PLAN your activities for the coming round
- 8 PERFORM actions, taking it in turns, one at a time. Pay for external resources used
- 7 SCORE your solutions and any TUNED or TRAINED markers. Take any penalties for incomplete actions.
- 6 RECOVER your planning markers, relationship markers from head office, and remove any red commitments. Replace the neutral planning marker.
- 5 RESET the external resources

AVAILABLE SOLUTIONS

ADMINISTRATION	LOGISTICS	MANUFACTURING	WAREHOUSING
3 1 II	1 II	1 II	1 II
4 2 II	1 II	2 1 II	2 1 II
5 2 II	1 II	3 1 II	3 1 II

ACTIONS

TRAIN

TUNE

UPGRADE

INTEGRATE

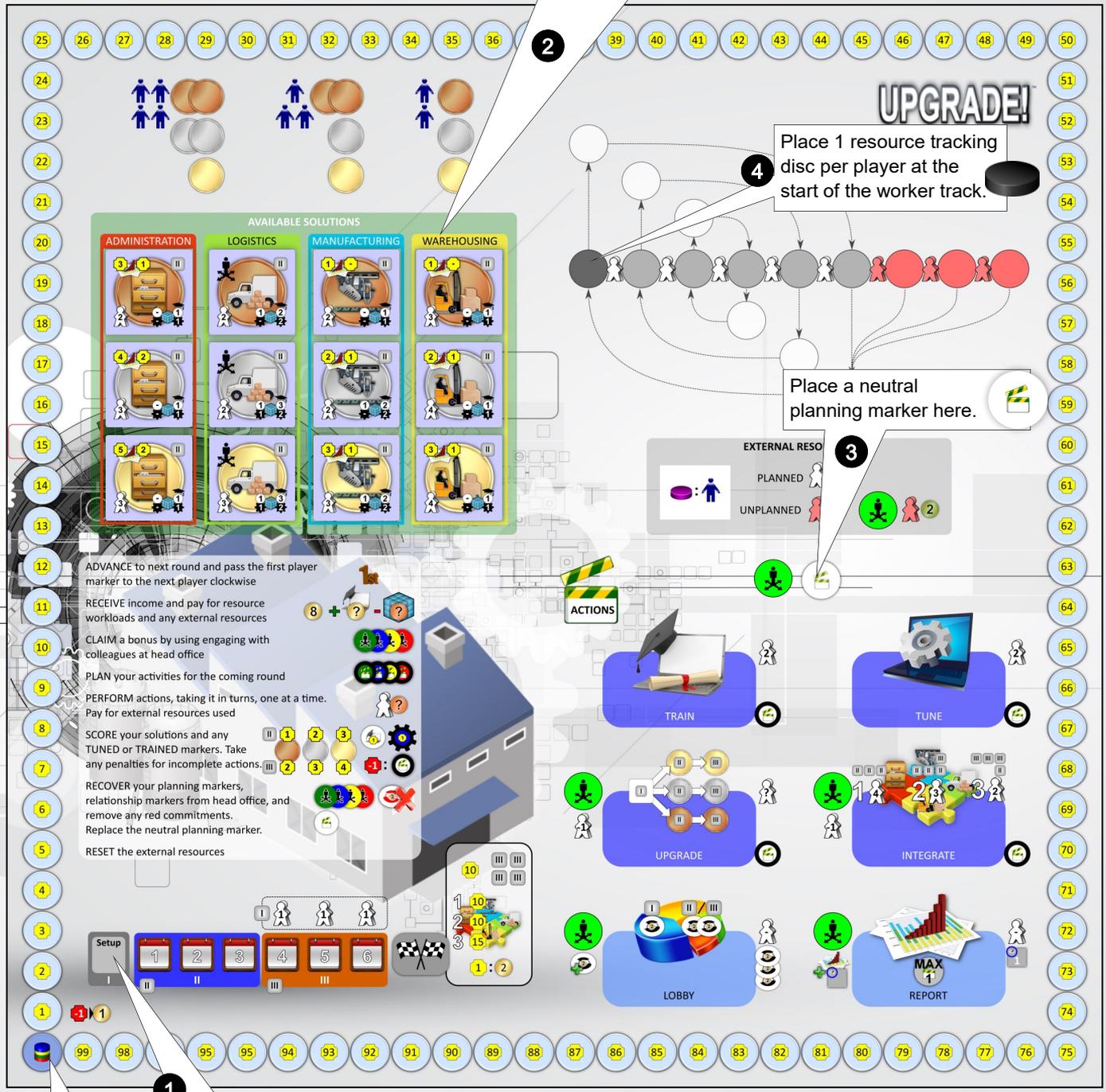
LOBBY

REPORT

Setup

Put the game-year pawn to "Setup"

Each player adds a disc to the start of the business value track



5

2

4

3

1



SEQUENCE OF PLAY

The game is played over 6 game years

The game is played over a set of steps; ADVANCE, RECEIVE, CLAIM, PLAN, PERFORM, SCORE, RECOVER, and RESET

These are represented on the centre board for convenience.

ADVANCE

- Pass the first player marker clockwise to the next player.
- Move the game-year pawn to the next game year. At the start of the game, this will be to move from the Setup position to year 1. After the 6th year, the pawn will be moved from the game-year track onto the end-of-game position.



In years 1-3, it is only possible to upgrade to level II solutions, whereas from year 4 onwards it is possible to upgrade to level II or III.

Also, from year 4 onwards, there is a resource requirement to keep any older level I solutions in operation. This is covered in the next step.

RECEIVE

Nett income is received and any additional external resources, needed to keep old technology operational, are used and paid for.

- The Income received is calculated as 8 credits **minus** additional workloads (1 credit per workload) **plus** income from additional training (1 credit per trained department). The amount to receive from training and pay for workloads is seen by the revealed values on your player board.
- From round 4, you must also pay for additional resources to maintain any level I solutions.



In this example, 3 workloads have been used to support the solutions (a) and 2 departments have been trained (b). Hence the player would receive $8 - 3 + 2 = 7$ credits.

CLAIM

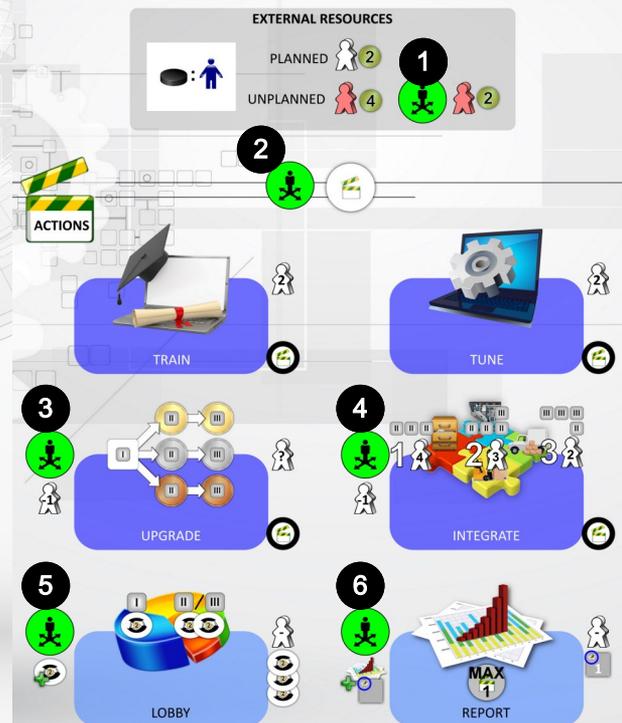
You may want to engage with your co-workers in head office to see how they can assist you during the coming year. There are 6 different bonuses available on the centre board for this purpose.

- In player turn order, if you want to engage, place one of your relationship markers onto the associated spot. Only one player can claim any one bonus and the bonus only applies to the player claiming it.

If you use a relationship marker engaged in a department, flip any commitments to their red side.

The available bonuses are as follows:

1. Unplanned resources cost 2 credits instead of 4
2. Receive an extra turn, take the neutral planning marker from the centre board to use in PERFORM.
3. Upgrades take 1 less external resource than that shown on the upgrade tile.
4. Integration takes one less resource than that shown on the centre board.
5. When lobbying, place an additional commitment in an engaged department, with no numerical limitations.
6. When reporting, count an additional available solution, other than those targeted for reporting.



PLAN

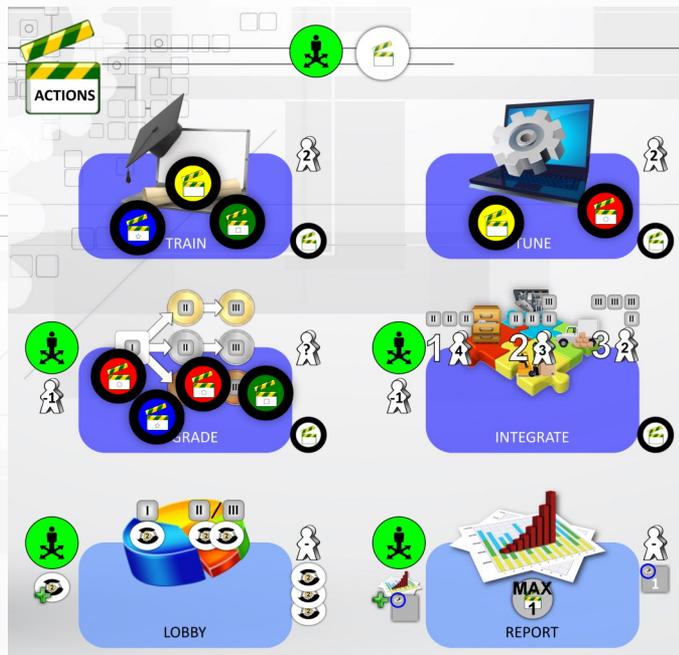
- Plan up to 3 actions comprising of 0-2 actions in TRAIN, TUNE, UPGRADE, or INTEGRATE. The action marker is placed onto the planned actions with the thick black surround showing. You cannot plan a neutral planning marker obtained as a bonus.
- Receive 1 business value point for each action planned - the company appreciates knowing what is intended.



A planned action cannot be changed during the following PERFORM step.

In the example below:

Yellow has planned a TRAIN and TUNE action
 Blue has planned a TRAIN and UPGRADE action
 Red has planned two UPGRADES and a TUNE action
 Green has planned an UPGRADE action.
 Green will receive 1 business value point, yellow and blue will receive 2 each and red will receive 3.



PERFORM

Progress in player order, with each player taking one action at a time.

- Perform a planned or unplanned action - this can be done in any order and includes the neutral planning marker provided the bonus action, if it has been selected. For each action performed, receive the associated benefit. If the action was planned, flip the action marker to show the "completed" side. For an

unplanned action, place an available action marker in the associated action area.



- If you are unable to take a planned action, you must pass.

SCORE

Take your current business value points, made from upgraded solutions, TRAINED markers and TUNED markers. Lose 1 business value point for any planned action marker than has not been completed.



For example, a level III silver solution would give 3 points whereas a level II bronze solution would give 1.

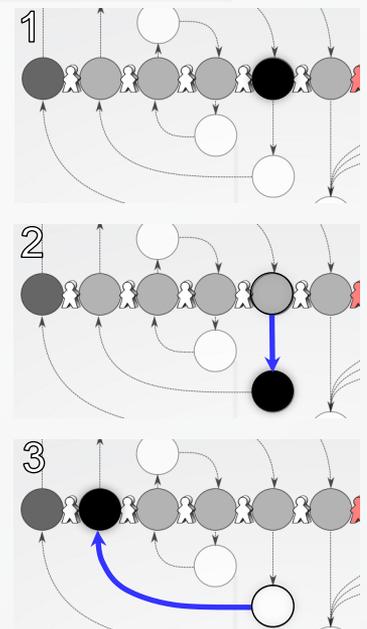
RECOVER

- Recover your action markers.
- If in use, return the neutral planning marker to the centre board.
- Remove any red commitments.

RESET

- From their final position on the external resource track, reset the resource markers by following the arrows.

Example resource marker reset:



End of game

- **Convert credits:** Receive 1 business value point for each 2 credits in hand.



- **Integration bonus:** Each of the first two integrations is worth 10 business value points. The third integration is worth 15 business value points. This gives you a bonus of up to 35 business value points



- **Upgrade bonus:** If you have managed to upgrade all solutions to level III, receive an additional 10 business value points.



- **Old tech penalty:** Lose 10 business value points for any department that has not had its solution upgraded (still at level I)



Winner

The winner is the player who has generated the most business value. A tie is broken first by the player with the most integration, then by the one with the most total relationship markers. If it is still a tie then congratulate each other and vow to do better next time you meet.

Notes

ACTIONS EXPLAINED

The actions available to perform are represented in the lower right quadrant of the centre board



There are two categories of actions in the game; those that are performed by you (LOBBY and REPORT) and those that are performed by the central support group using the external resources tracked to the top right of the main board. Only the actions performed by the external resources can be planned ahead of time.

On the centre board, the top 4 actions are those that are performed by the external resources (TRAIN, TUNE, UPGRADE, and INTEGRATE).

At the beginning of the game, each player receives 3 action markers in their chosen colour. One side has a thick black border, used to indicate "planned".



Action bonus; Receive neutral planning marker for use during the current year.



TRAIN - can be planned

1-2 external resources



The TRAIN action allows you to extend the trained users within a department. The action normally requires 2 external resource but if you are engaged with the department manager, to understand the training needs, it requires 1 external resource. Training also gives you a relationship marker.

Taking the action

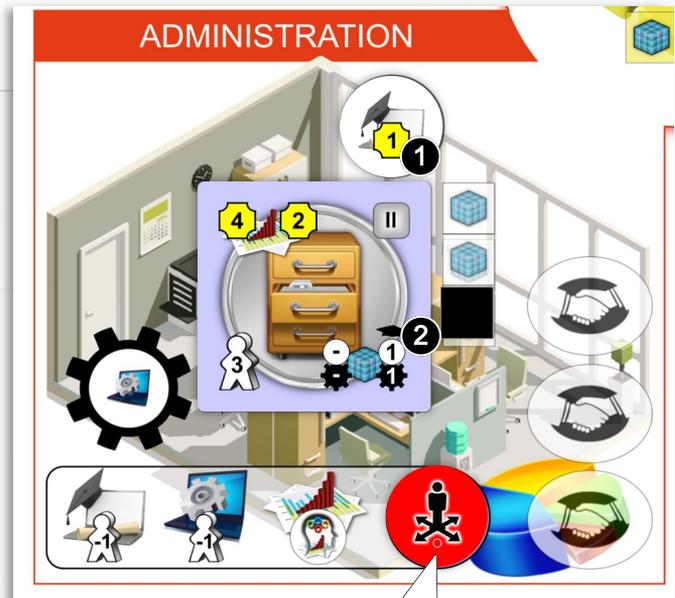
After placing/flipping your action marker, place a Trained marker into the chosen department with the business value bonus shown (1). Also take the relationship token that was beneath the Trained marker.

If you have engaged with the department manager (as in the example, right), this action costs 1 external resource, otherwise it has a cost of 2.

With the increased number of trained people in the department, there may be an increase in the workload demand. In the example, the workload is increased to 1, so a cube is added (2).

There will also be an associated increase in income by 1 credit.

Later, if the solution is upgraded, the Trained marker is flipped to show the side without the business value bonus.



Engaged with the department manager

A department can be retrained to flip the Trained marker back to the side with the business value bonus.

TUNE - can be planned

1-2 external resources

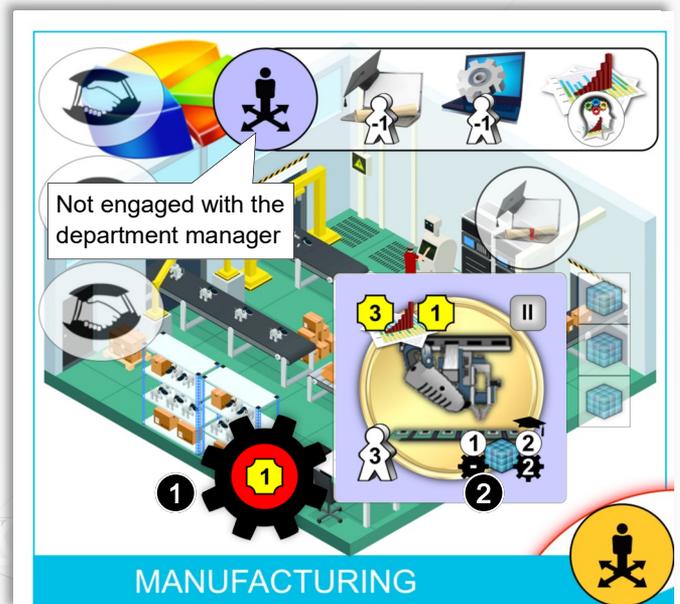


The TUNE action represents optimisations made in the solution to improve its performance. The TUNE action may also reduce the workload required for your user-group. The action is not available for level I

solutions. The action normally requires 2 external resource but if you have engaged with the department manager, to understand the training needs, it requires 1 external resource.

Taking the action

After placing/flipping your action marker, place a Tuned marker into the chosen department (1). If you have engaged with the department manager (not the case in the example, right), this action costs 1 external resource, otherwise it has a cost of 2. As mentioned above, with the improved performance, there may be a reduction in the workload demand to support the solution, as in the example right (2), where the workload is reduced from 1 to 0. In this case, the workload cube is returned to the supply in

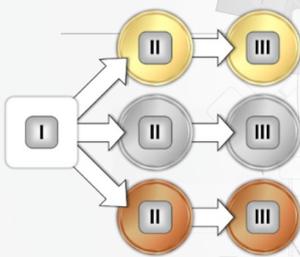


the middle of the facility board.

Tuned markers bring a business value bonus that is in effect for the rest of the game.

UPGRADE - can be planned

external resource cost shown on Solution upgrade tiles



The UPGRADE action is used to upgrade the solution in one of your four departments. A solution can't be upgraded to a level beyond the current game phase indicated by the year track.

Taking the action

The available solution upgrade tiles are found in the available solutions section of the main board (top left quadrant). When you UPGRADE from level I to level II, select a solution upgrade tile, corresponding to the department you want to upgrade and add it to your facility board. In the example right, a silver administration solution has been added to the administration area of the facility board.

When you UPGRADE from level II to level III, flip the tile currently in place to show the level III side. The amount of external resources needed to implement the solution are shown bottom left of the upgrade tile.

If there is a TRAINED marker at the department, it is flipped to show the side without the business value. Check for any change in the workload needed by the newly upgraded solution (refer to page 2).



Bonus: UPGRADE actions take 1 less worker than the value stated on the tile.

INTEGRATE - can be planned

external resource cost shown on main board



With the INTEGRATE action, you connect your level II and III solutions together, improving performance and providing more insight from reports. There are three steps of integration which must be taken in order; step 1 first, then step 2 and finally step 3. Step 1 takes 4 resources and 3 departments must have been upgraded. Step 2 takes 3 resources and all your departments must have been upgraded with at least one to level III. Step 3 requires 2 resources and all your departments must have been upgraded with at most one to only level II.



You will be integrating the Administration solution to Manufacturing (1), Logistics (2) or Warehousing (3).



Taking the action

After placing/flipping your action marker, engage with the integration supplier by placing a relationship marker in the integration area of your facility board next to the solution you want to first integrate with your administration system. This will remain in place for the remainder of the game. Also add a workload, to cover the increased demand, in the associated location. Assign and pay for the required external resources.

NOTE: If you are using commitments to cover the cost of workers, you can only recover 2 credits in the connected department

Reporting

For each relationship marker a player has on the integration track, the integrated solution is included in the REPORT action. For example, if you have 2 relationship markers on the integration track (level 2), you can REPORT on the 3 solutions (1 + 2 extra).

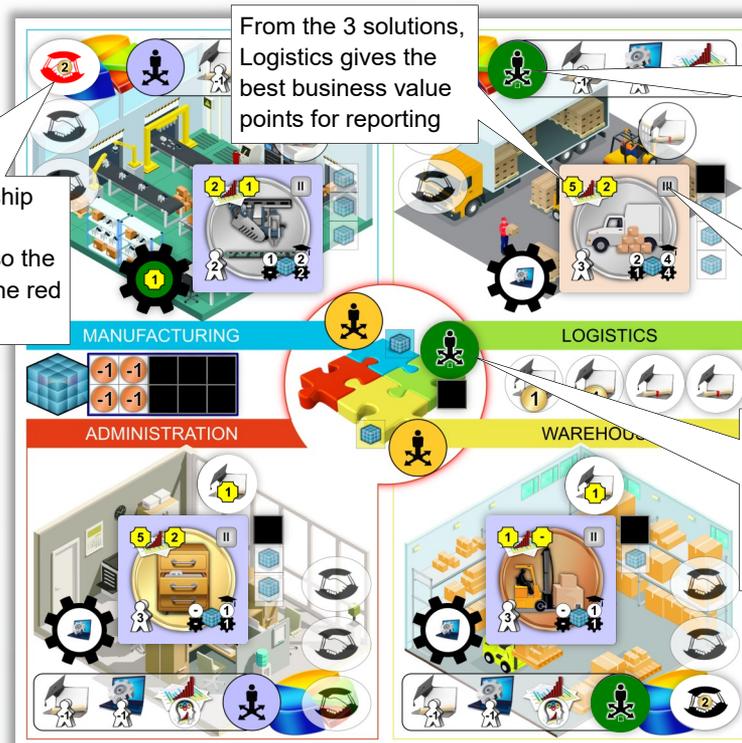
End of game

You receive business value points according to the number of integration steps you have achieved (p. 7).



Bonus: INTEGRATE actions take 1 less worker than the value stated on the board.

In this example, the relationship marker was taken from the Manufacturing department, so the commitment was flipped to the red side



From the 3 solutions, Logistics gives the best business value points for reporting

You don't need engage with the department to INTEGRATE, only to REPORT and LOBBY

With three level II and one level III solutions it is possible to perform 2 INTEGRATE steps

A relationship marker is placed to indicate that the Logistics solution is integrated, as is the associated workload.

LOBBY

no resources needed



The LOBBY action has no worker cost and is used to get budgetary commitment, from the various department managers, to improve their areas.

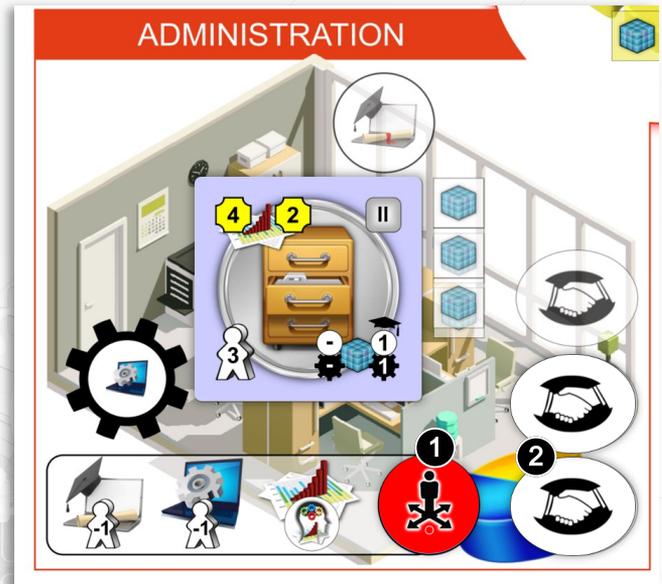
original department are flipped to the red side and will be removed at the end of the current round if not used - without an ongoing engagement you can't expect the department manager continue to support you financially indefinitely.

Taking the action

You can add up to 3 commitment markers, from your supply, onto one or more departments. To add commitment to a department you must have engaged with the department manager by placing one of your relationship markers at the department. Place an available relationship marker onto a department tile as needed (1). Add commitment markers in the spaces provided (2); maximum 1 marker in a department with a level I solution or 2 markers where there is a level II or III solution.

At any point during the game, you can redeem funds by recovering one or more markers and returning them back to your supply. You receive 2 credits for each marker recovered but this money must be used immediately to pay towards a cost associated with the corresponding department - no change given.

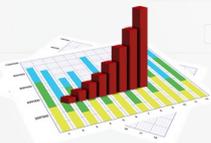
A relationship marker can be removed from a department at any time, returning it to your supply. In this case, any existing commitment markers on the



Bonus: During a LOBBY action, add an extra commitment marker to any department with a relationship marker (unaffected by solution level).

REPORT

no resources needed



The REPORT action represents analysis and reporting of the solution data across the chosen and connected departments to gain insight and business value.

You can generate more business value if you are engaged with the department manager and understand their challenges.

Taking the action

You can only take this action once per year. When present, here are two values for the report action shown on the solution upgrade tile (see page 2). The one on the left indicates the business value if you are engaged with the department manager. The one on the right indicates the business value if you are not. If you have not yet integrated, you receive the amount

of business value shown top left of any one of your solution upgrade tiles.

If you have taken one step of integration only, you receive the amount of business value shown on the Administration solution and the other integrated solution.

If you have taken two steps of integration only, you receive the amount of business value shown on the Administration solution and the two integrated solutions.

If you have taken all three steps of integration, you receive the amount of business value shown top left of up to four of your solution upgrade tiles.

Engagement rules apply for each solution being reported.



Bonus: Receive business value for one extra tile as well as those to which you are entitled. No tile can be counted twice.

Using the External resource track

The external resource track is in the upper right quadrant of the centre board.

The TRAIN, TUNE, UPGRADE, and INTEGRATE actions, use external resources to get the job done.

When setting up, for each player, one resource tracking disc is added to the start of the external resource track (1). So, in a 3-player game there will be 3 resource tracking discs.



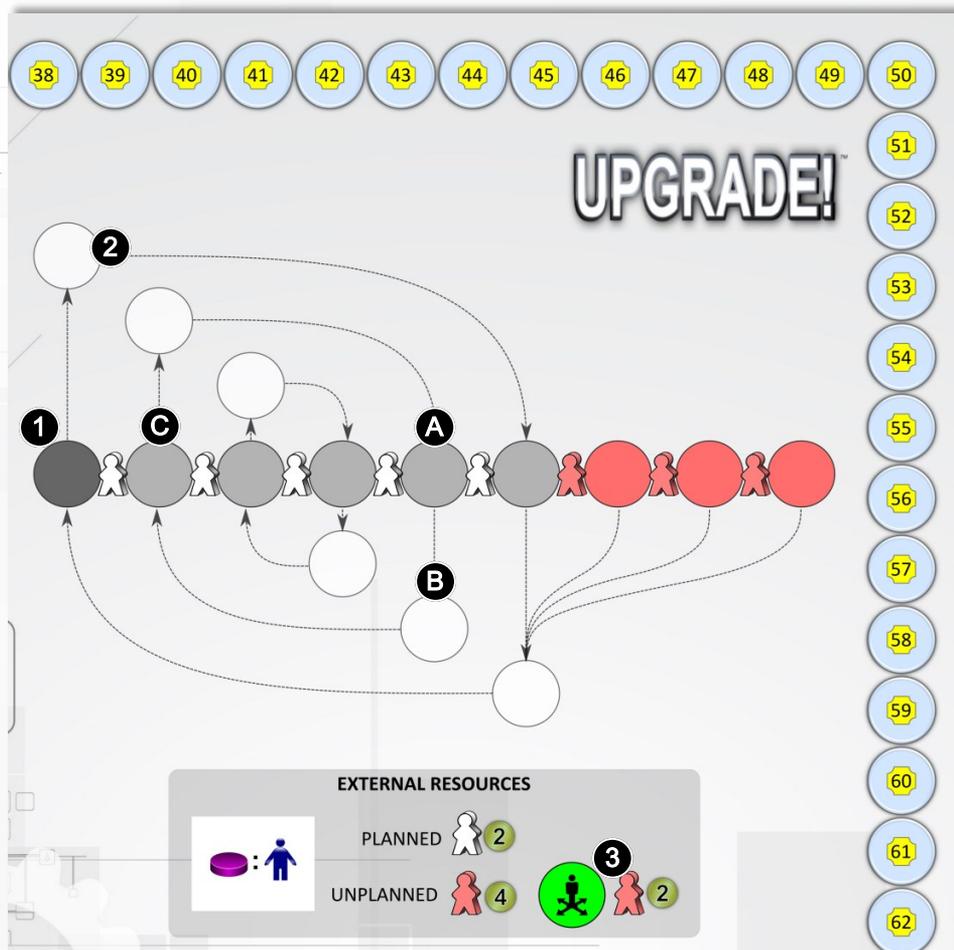
For each resource consumed, any one disc is move one space along the track (from left to right). The cost of each resource is dependent upon whether it is planned or unplanned, as shown on the centre board. In general, you will, wherever possible, use planned resources given the difference in cost.

At the end of the year, in the reset step, the resource tracking discs are placed at their starting position for the next year. This is done by tracing the line, first from the main track to the one of the six white reset spaces (2). Once all the resource tracking discs are on their respective reset spaces. The continue following the line, in the direction of the arrow, to be placed onto the main track.

For example, a disc in position 'A' at the end of the year would first be moved to reset space 'B*' and then back onto the main track as position 'C'

In practice, this means that if planned resources are not consumed, they are unavailable in the following year.

An available bonus allows for unplanned resources to be the same cost as planned (3).



About demand management

Within the game, there are two types of demand that need to be managed, controlled and optimise; workload, and money.

Workload

Workload represents the resources used in the delivery and support of the solutions. This includes infrastructure resources, cloud resources, and the support offered through the service desk, incident management, etc.

Since everyone starts from the same place, with regards to workload needs, this baseline workload is ignored in the game and only the additional workloads, above this baseline, are tracked.

In the game, these additional workloads are represented by black cubes.

Each player has 10 cubes at their disposal. This quantity cannot be exceeded. So, if an eleventh workload would be needed, a cube must be freed up somewhere else on the board first.



Naturally workloads have cost so the more cubes in use the greater the cost.

Money

Money is used to pay for the external resources that perform many of the actions. The unit of currency is simply "credits".

In general, it is extremely difficult to manage with the money provided through income in the game. This necessitates an alternative source. Two options are provided in the game, trading in a business value point for one credit (which can be done at any time during the game), or tapping into the budgets of the department managers.

The LOBBY action is key to the latter, securing significant additional funds and making your choices less constrained.

One point to note though is that you can only use the budget commitment for work in the associated department. So, you can't use commitment in Manufacturing to pay for the resources needed to train the Warehouse staff.

Having money left at the end of the game will generate business value so it is important that you keep a close eye on your spend.



About relationship management

Relationship management is about creating, developing and maintaining your interaction with your stakeholders. In the game this is done by engaging with those stakeholders and, in some cases, this also pays dividends in terms of bonuses

You have three types of stakeholder in the game, the user being indirectly included with the department manager (see later).

Middle managers

In head office, you have a number of middle managers which have a vested interest in various aspects of your endeavours and who will offer you support in achieving success. Engaging with these stakeholders will generate bonuses to help you in the game.

The middle managers are represented with a light green relationship spot.



Department managers

The managers of the four departments in your facility offer valuable assistance in terms of financial support and insight.

The insight that they offer allows you to place more focus the requirements for Training and Tuning, leading to reduced external resource needs. In discussion with the manager you also learn what information is most valuable for decision support and can tailor your reports to address these areas, thereby generating more business value. Insights are, in part also related to the users as stakeholders though they are not explicitly addressed in the game, rather represented through their department manager As mentioned on page 13 opposite, the department

manager engagement is key to securing additional funding for work in that department. This is covered in the LOBBY action where you take time to outline the future intentions for the department in order that you can get additional financial support from the department manager's budget. You have only limited possibilities initially until you have proven that you can deliver.

The department managers are represented with a light blue relationship spot.



Supplier

Maintaining a productive relationship with your suppliers is very important. We are focused here on the supplier of the integration solution used by the company. The continual relationship is needed to ensure that the integration and associated data management is maintained at optimum performance, as well as to ensure that the contractual terms and conditions are met by both parties.

The suppliers are represented with an orange relationship spot.



You will be engaging with these stakeholders by placing your relationship marker onto the associated spot.

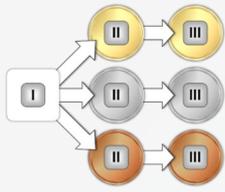
You start the game with one Relationship marker and gain more as you create influence in the organisation through providing training and in the initial upgrade of the Logistics department solution - this department has long been asking for a better solution and you make a lot of friends with the initial upgrade here. Each player has relationship markers in their player colour.



ACTIONS summary

UPGRADE

2-5 external resources + cost



Upgrade your solutions (p. 9)
If you have no solution upgrade tile in place on your chosen department add the tile of your choice (gold, silver or bronze), for that department with the level II side up. Pay the worker cost shown. You can upgrade from level II to III by flipping the solution tile. Be sure to always check that you have the correct amount of workload needed to support the solution.



Bonus: UPGRADE actions take 1 less external resource than the value stated on the tile.

LOBBY

No external resources needed



Get management commitment (p. 11)
Add up to 3 commitment markers to engaged departments. Only add 1 marker at a department without a solution upgrade tile, otherwise add up to 2 markers. Recover commitment markers back to your supply to gain 2 credits per marker. Commitments can only be used against actions performed in their associated department.



Bonus: During a LOBBY action, add an extra commitment marker to any engaged

REPORT

No external resources needed



Report on your departments (p. 11)
Receive the amount of business value shown on your solution tiles. If you have a relationship marker engaged at the department, use the value on the left, otherwise use the value on the right.

All solutions integrated to the one you have chosen, also count towards the business value. Once again, if you have engaged with the relevant department, use the value on the left.



Bonus: Receive business value for one extra tile as well as those to which you are entitled.

TRAIN

1-2 external resource + cost



Add a TRAINED marker to one of your departments (p. 8)
Place a Trained marker onto an available location in one of your departments, with the business value bonus shown. Take the associated relationship marker to your supply. Make any associated changes to the workload.

INTEGRATE

2-4 external resources + cost



The INTEGRATE action sets up connections between your business solutions to improve your reporting capabilities (p. 10)

Place one of your available relationship markers on the chosen integration solution, paying the appropriate external user cost for the integration level. Also add one additional workload.

TUNE

1-2 external resources + cost



Tune a solution (p. 9)
For the chosen level II or III solution, add a tuned marker and make any associated adjustment to the required workload.



Bonus: INTEGRATE actions take 1 less external resource than the value stated on the board.

Other bonus spots



Action bonus; Receive the neutral planning marker for use during the current year.



Unplanned worker bonus: Red worker steps cost you 2 credits instead of 4 credits.

